



**AUSBAU
EISENBahnACHSE
MÜNCHEN - VERONA**

**POTENZIAMENTO
ASSE FERROVIARIO
MONACO - VERONA**

**BRENNER
BASISTUNNEL**

**GALLERIA DI BASE
DEL BRENNERO**

Erkundungsstollen

Cunicolo esplorativo

**Fachbereich MO1
Monitoring**

**Settore MO1
Monitoraggio**

Projekteinheit

Unità di progetto

Immissionsmessungen

Misurazioni delle immissioni

Dokumentenart

Tipo Documento

Bericht

Relazione

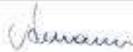
Dokumenteninhalt

Contenuto documento

Jahresbericht 2019

Relazione 2019

 		DATUM / DATA	NAMEN / NOME
	Bearbeitet / elaborato	24.03.2020	Tanzberger
	Gezeichnet / firmato	24.03.2020	Amann
	Geprüft / verificato		

 Galleria di Base del Brennero Brenner Basistunnel BBT SE	Freigabe Auftragnehmer Delibera Affidatario	Datum /data 24.03.2020	Name / nome 
	Freigabe UWS Delibera UWS	Datum /data	Name / nome 

MasstabScala			
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STAAT / STATO	LOS / LOTTO	Einheit / Unità	Nummer / Numero	Dokumentenart / Tipo Documento	Vertrag / Contratto	Fortl. Nummer / Numero progress.	Revision / Revisione
01	- MO1 - IM	-	01	B	D0396	- 00137	- 01

Bearbeitungsstand Stato di elaborazione			
RevisionRevisione	Änderungen / Cambiamenti	Verantwortlicher Änderung Responsabilemodifica	DatumData
01	Erstversion / Prima Versione	Tanzberger	24.03.2020

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1. AUFGABENSTELLUNG

Die Eurofins Umwelt Österreich GmbH & Co. KG wurde von der BBT Brenner Basistunnel BBT SE mit Immissionsmessungen im Raum Tulfes – Innsbruck – Steinach beauftragt. Die Messungen dienen einerseits der Beweissicherung (Belastungssituation während der Bauphase, Restbelastung nach Abschluss der Bauarbeiten, eventuell Immissionsauswirkungen durch Verkehrsumlagerungen von der Strasse auf die Schiene), andererseits der Überwachung der Bauphase mit Alarmierung im Fall von erheblichen Immissionsepisoden.

Ein Teil des Messprogramms besteht in der ONLINE-Überwachung der Feinstaub (PM10)- und Stickoxidbelastung mit Erfassung der Windrichtung und Windgeschwindigkeit an zurzeit 6 Containerstandorten. Die Containerstandorte wechseln je nach Erfordernis. Des Weiteren wird im Padastertal eine meteorologische Messstation betrieben, die Daten zu Windrichtung, Windgeschwindigkeit, Lufttemperatur, relative Feuchtigkeit und Strahlungsbilanz erfasst. Anhand dieser Daten findet (auch vom Institut für Meteorologie Uni Innsbruck) die Überwachung der Luftströmungscharakteristik statt.

Ein weiterer Bereich des Immissionsmessprogramms besteht aus der Ermittlung des atmosphärischen Stoffeintrages durch Staubbiederschlagsmessungen. Durch eine Analyse des aus dem atmosphärischen Stoffeintrag stammenden Trockenrückstands wird der Staubbiederschlag, der Organische Anteil (in $\text{mg}/\text{m}^2/\text{d}$), Ca und Mg (in $\text{mg}/\text{m}^2/\text{d}$) bestimmt.

Dementsprechend können anhand der Staubbiederschlagsmessungen Rückschlüsse über mögliche Auswirkungen auf die Vegetation und Schadstoffeinträge in den Boden erfolgen.

Zusätzlich finden an den Tunnelportalen „Sill Schlucht“ und „Ahrental“, ausgehend vom jeweiligen Tunnelportal in 0 m, 50 m und 100 m Entfernung Temperatur- und Feuchtemessungen statt. Die Messungen gewährleisten 10-Minuten-Mittelwerte und dienen dazu eine durch die Abwärme erzeugte Nebelbildung im Bereich der Tunnelportale so schnell wie möglich zu registrieren.

1. OBIETTIVI DELLO STUDIO

La Eurofins Umwelt Österreich GmbH & Co. KG è stata incaricata dalla Galleria di Base del Brennero di eseguire misurazioni d'immissione nell'area Tulfes – Innsbruck -Steinach. Tali misurazioni rappresentano da un lato il monitoraggio (carico d'inquinamento durante le fasi costruttive, carico d'inquinamento residuale dopo la chiusura dei cantieri, eventualmente l'impatto delle immissioni dovute al trasferimento del traffico dall'autostrada alla rotaia) e dall'altro lato la sorveglianza della fase costruttiva con l'eventuale attivazione dell'allarme nel caso di episodi d'immissioni considerabili.

Una parte del programma delle misurazioni è costituita dal monitoraggio ONLINE del carico con polveri sottili (PM10) e ossidi d'azoto nonché il rilevamento della direzione e la velocità del vento presso attualmente 6 posti container. I posti container saranno trasferiti secondo necessità. Inoltre è gestito un punto di misurazione meteorologica nel Padastertal, nella quale saranno rilevati dati riguardanti la direzione e la velocità del vento, la temperatura dell'aria, l'umidità relativa e la radiazione. Questi dati saranno la base per il monitoraggio della caratteristica della corrente d'aria (eseguito anche dall'istituto meteorologico dell'Università di Innsbruck).

Un altro punto del programma di misurazione consiste nel rilevamento delle immissioni atmosferiche tramite misurazione delle polveri in ricaduta. Un'adeguata procedura d'analisi rivelerà nel residuo secco risultante dall'immissione atmosferica le precipitazioni di polveri, la quota organica (in $\text{mg}/\text{m}^2/\text{d}$), Ca e Mg (in $\text{mg}/\text{m}^2/\text{d}$).

In questo modo, le misurazioni delle polveri in ricaduta potranno permettere delle conclusioni riguardanti eventuali impatti sulla vegetazione e inquinamenti del suolo.

Inoltre vengono effettuate delle misurazioni di temperatura e umidità presso i portali di galleria "Sillhöfe" e "Ahrental" a 0m, 50m e 100m di distanza dal rispettivo portale. Le misurazioni garantiscono valori medi ogni dieci minuti permettendo così la registrazione immediata della formazione di nebbia dovuta al calore di scarto.

2. DARSTELLUNG DER MESSSTANDORTE UND MESSZEITRÄUME

2. RAPPRESENTAZIONE DEI SITI DI MISURAZIONE E PERIODI DI TEMPO

2.1. Messstellen Immissionsmessungen

2.1. Siti di misurazione delle immissioni



Abbildung 1: Darstellung Messstellenlage BBT1 und BBT4

Illustrazione 1: Raffigurazione della posizione dei siti di misurazione BBT1 e BBT4

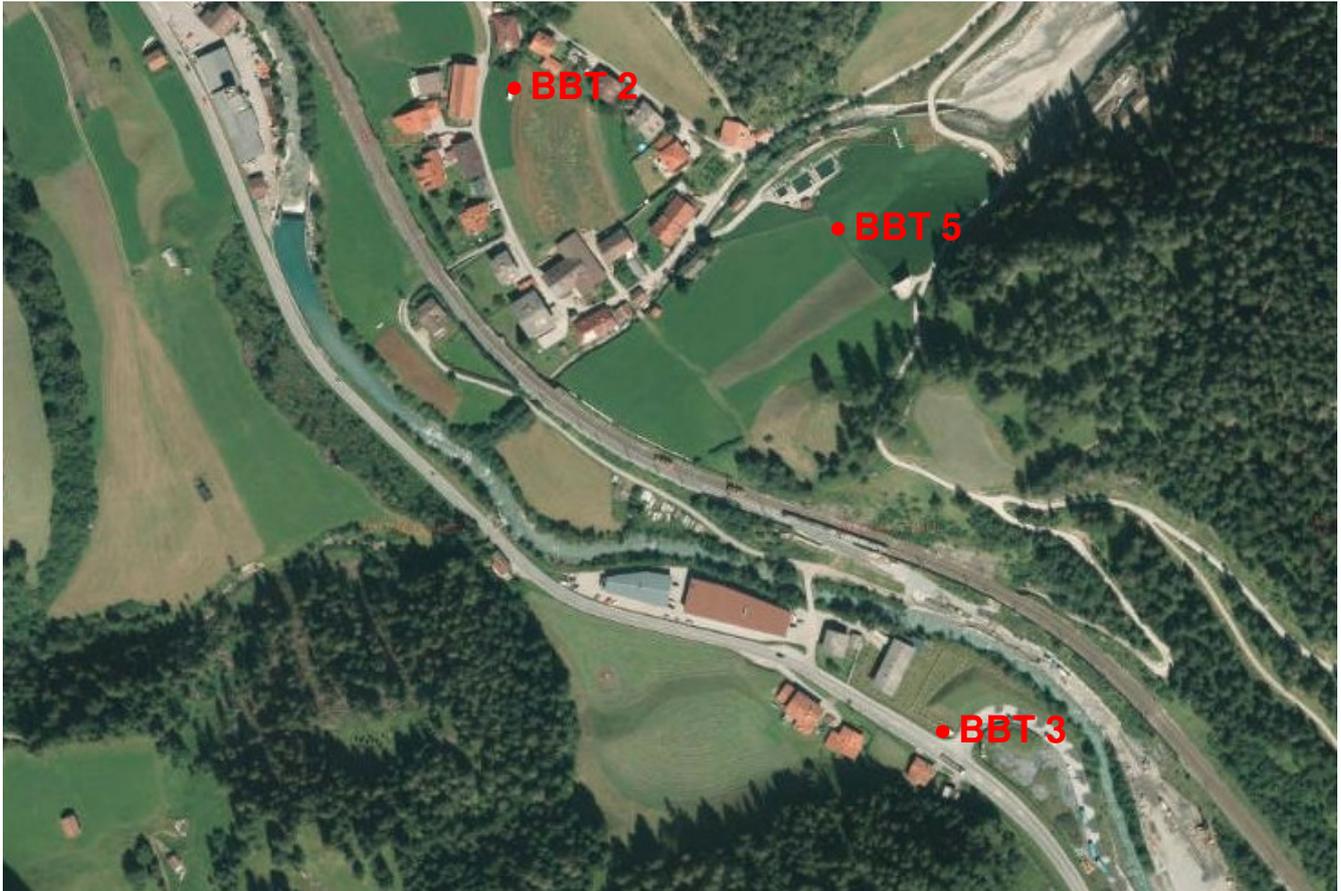


Abbildung 2: Darstellung Messstellenlage BBT2, BBT3 und BBT5

Illustrazione 2: Raffigurazione della posizione dei siti di misurazione BBT2, BBT3 e BBT5



Abbildung 3: Darstellung Messstellenlage BBT6

Illustrazione 3: Raffigurazione della posizione del sito di misurazione BBT6



Abbildung 4: Darstellung Messstellenlage BBT7

Illustrazione 4: Raffigurazione della posizione del sito di misurazione BBT7

Kennung Codice	Name Nome	Pos. N	Pos. E	Ausstattung Allestimento
BBT1	lbk-Frauenanger	47°15,403'	11°24,082'	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂
BBT2	Steinach-Siegreith	47°04,937'	11°28,636'	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂
BBT3	Steinach-Saxen	47°04,730'	11°28,831'	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂
BBT4	lbk-Sillhöfe „Alt“ dismesso	47°15,2423'	11°24,2491'	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂
BBT4	lbk-Sillhöfe	47°15,2421'	11°24,2489'	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂
BBT5	Padaster	47°04,886'	11°28,762'	Wind, Strahlungsbilanz Vento, radiazione
BBT6	Ampass	47°15'42''	11°27'05''	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂
BBT7	Tulfes	47°16'44''	11°32'43''	Wind, PM ₁₀ , NO, NO ₂ Vento, PM ₁₀ , NO, NO ₂

Tabelle 1: Beschreibung der Immissionsmessstellen

Tabella 1: Descrizione dei siti di misurazione delle immissioni

Kennung Codice	Name Nome	Lagebeschreibung Descrizione dell'ubicazione	Messbeginn Data inizio- misurazione	Messende Data fine misurazione
BBT1	Ibk-Frauenanger	Südliches Ende Spielplatz Margine meridionale del campo da gioco	13.12.2008	
BBT2	Steinach-Siegreith	Weidefläche Hoferbauer Pascolofattoria Hoferbauer	19.12.2008	
BBT3	Steinach-Saxen	Kreuzungsbereich Baustellen- zufahrt Area d'incrocio con l'accesso al cantiere	17.01.2009	
BBT4	Ibk-Sillhöfe „Alt“ dismesso	Einfahrt zur Firma Interglass Accesso alla ditta MIPAG	22.01.2009	26.11.2018
BBT4	Ibk-Sillhöfe	Firmengeländer der Fa. Schen- ker	16.01.2019	
BBT5	Padaster	Zufahrt Padastertal östlich des Ba- ches Accesso alla valle Padastertal a lato levante del rio	01.01.2009	
BBT6	Ampass	Zwischen Zufahrt Peerhöfe und Straße nach Ampass Tra l'accesso alle fattorie Pee- rhöfe e la strada verso Ampass	16.07.2010	
BBT7	Tulfes	Obstwiese Aschberger Frutteto Aschberger	14.09.2010	

*Tabelle 2: Messzeiträume an den Immissions-
messstellen*

*Tabella 2: Periodi di tempo presso i siti di misu-
razione delle immissioni*

2.2. Staubniederschlagsmessstellen (Bergerhoff)

2.2. Siti di misurazione delle polveri in ricaduta (metodo Bergerhoff)



Abbildung 5: Darstellung der Bergerhoffmessstelle Ampass

Illustrazione 5: Raffigurazione del sito di misurazione presso Ampass (metodo Bergerhoff)



Abbildung 6: Darstellung der Bergerhoffmessstellen Unterberg und Ahrnhof

Illustrazione 6: Raffigurazione dei siti di misurazione Unterberg e Ahrnhof (metodo Bergerhoff)

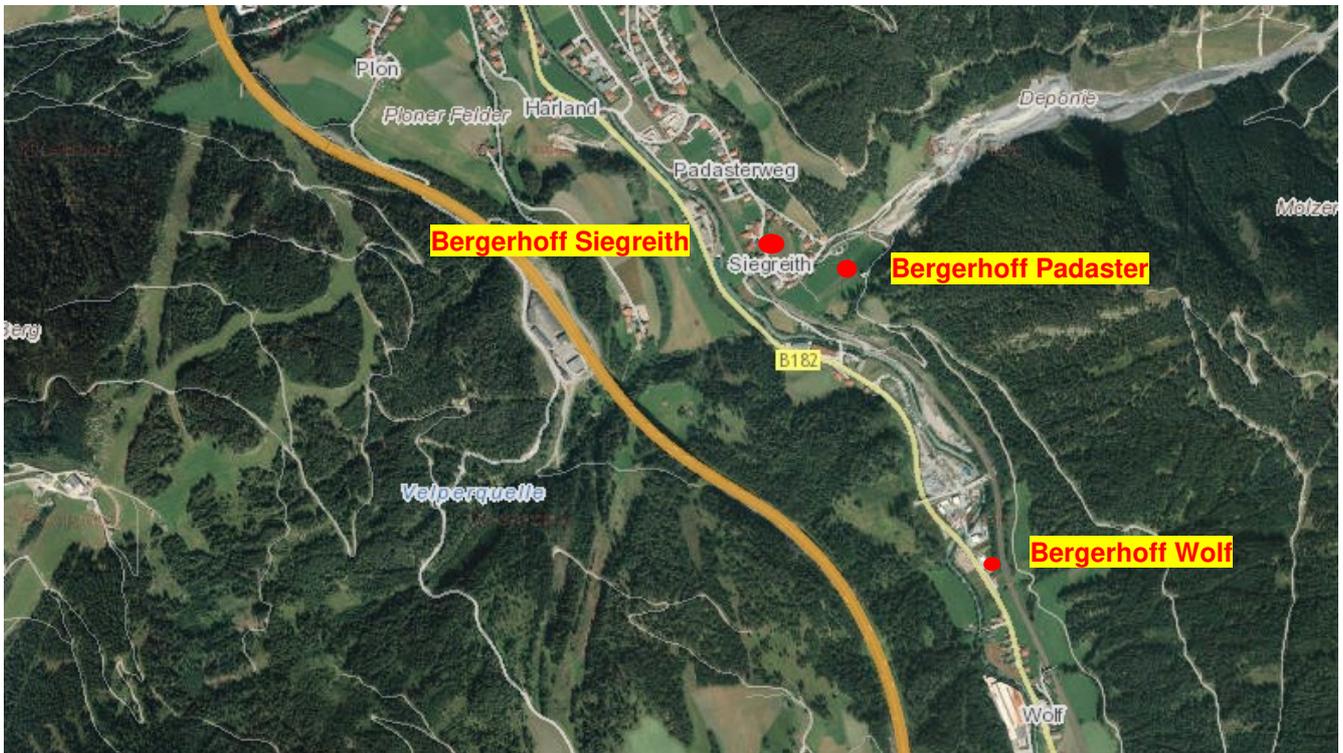


Abbildung 7: Darstellung Bergerhoffmessstellen-
SteinachSiegreith, Padaster und Wolf

Illustrazione 7: Raffigurazione dei siti di misurazione
SteinachSiegreith, Padaster e Wolf
(metodo Bergerhoff)



Abbildung 8: Darstellung Bergerhoffmessstelle
Frauenanger und Sillschlucht

Illustrazione 8: Raffigurazione dei siti di misurazione
Frauenanger e Gola del Sill (metodo
Bergerhoff)

Kennung Codice	Name Nome	Lagebeschreibung Descrizione dell'ubicazione	Messbeginn Data inizio- misurazione	Messende Data fine misurazione
1	Ahrnhof	NördlichdesAhrnhofs A nord della fattoria Ahrnhof	28.01.2009	
2	lbc - Frauenanger	BeimImmissionsmesscontainer BBT1 Presso il container di misura- zione delle immissioni BBT1	27.02.2010	
3	Steinach-Siegreith	BeimImmissionsmesscontainer BBT2 Presso il container di misura- zione delle immissioni BBT2	27.02.2010	
4	A12 - Raststätte	Im Nahbereichder A12 Ra- ststätte Nei pressi dell'area di servizio A12	24.03.2010	
5	Windmessa- nla- gePadaster Impianto di misura- zione del vento valle Padastertal	Messstelle BBT5 Windmessa- nla- ge Sito dell'impianto di misura- zione del vento BBT5	24.03.2010	
6	Wolf	Ortsanfang Wolf Ingresso al paese Wolf	24.03.2010	
7	Unterberg	Unterberg Bahnhof Stazione di Unterberg	24.03.2010	
8	lbc - Sillschlucht	Vor der Brücke zur ÖBA über die Sill Prima del ponte all'ufficio ÖBA (Direzione Lavori Austriaca, no- ta trad.) sopra il Sill	24.03.2010	

*Tabelle 3: Beschreibung und Messzeiträume
der Bergerhoffmessstellen*

*Tabella 3: Descrizione e periodi di tempo delle
misurazioni presso i siti Bergerhoff*

3. DARSTELLUNG DER METHODIK DER MESSUNGEN

3. RAPPRESENTAZIONE DEI METODI DELLE MISURAZIONI

3.1. Methodik Immissionsmessungen

Im Folgenden werden die Messmethoden für Stickoxide, Staub, Windrichtung und Windgeschwindigkeit erläutert.

3.1. Metodi delle misurazioni delle immissioni

Seguono le spiegazioni dei metodi di misurazione degli ossidi d'azoto, delle polveri, della direzione e della velocità di vento.

Stickoxide:

APNA 360E und APNA 370 HORIBA

Chemilumineszenz kombiniert mit Cross-Flow-Modulationstechnik (Eignungsprüfung UBA Nr.: 24/96)

Nachweisgrenze: NO: 0,3 ppb
NO_x: 0,9 ppb

PM10:

FH62IR, ESM Eberline Instruments GmbH

Radiometrie mit Zwei-Strahl-Kompensationsverfahren (Beta-Strahlen-Absorption)
(Eignungsprüfung TÜV Bayern Nr.: 24012676)

Nachweisgrenze: ca. 3 µg/m³ bei ½ h Mittelwert
ca. 0,5 µg/m³ bei 24 h Mittelwert

Windrichtung und –Geschwindigkeit:

Type 263AA4, Kroneis Wien

Kombinierter Geber für die Windgeschwindigkeit und Windrichtung (optoelektronischer Impulsgeber und Richtungspotentiometer)

Ansprechgeschwindigkeit:

Schalenstern: 0,3 m/s
Windfahne: 0,5 m/s bei 30° Auslenkung

Messgenauigkeit: gemäß ÖNORM M9490

besser als ± 0,5 m/s für Windgeschwindigkeiten unter 5 m/s

± 10% vom Messwert über 5 m/s

Richtung: ± 2 Grad

3.2. Methodik Staubniederschlagsmessungen (Bergerhoff)

Die Bestimmung des partikelförmigen Niederschlags erfolgt gemäß VDI-Richtlinie Nr.4320 Blatt 2 „Messung atmosphärischer Deposition - Bestimmung des Staubniederschlags nach der Bergerhoff-Methode“.

Ossidi d'azoto:

APNA 360E ed APNA370 HORIBA

Luminescenza chimica combinata con tecnica di modulazione Crossflow (Esame d'idoneità dell'Agenzia Federale per l'Ambiente (UBA) No. 24/96)

Limite di rivelabilità: NO: 0,3 ppb
NO_x: 0,9 ppb

PM10:

FH62IR, ESM Eberline Instruments GmbH

Radiometria con procedimento di due radiazioni compensate (Assorbimento radiazione β)
(Esame d'idoneità TÜV Baviera No. 24012676)

Limite di rivelabilità: 3 µg/m³ con media ogni mezz'ora all'incirca
0,5 µg/m³ con media ogni 24 ore all'incirca

Direzione e velocità di vento:

Tipo 263AA4, Kroneis Austria, Vienna

Anemometro combinato per misurare la velocità e la direzione del vento (anemometro optoelettronico e potenziometro per misurare la direzione)

Risoluzione:

Stella a coppette: 0,3 m/s
Banderuola: 0,5 m/s con 30° di spostamento

Precisione: secondo lo standard austriaco ÖNORM M9490

migliore di ±0,5 m/s per velocità di vento minori ai 5 m/s

± 10% del valore di misurazione sopra i 5 m/s

Direzione: ± 2 gradi

3.2. Metodo di misurazione delle polveri in ricaduta (Bergerhoff)

La misurazione delle particelle in ricaduta è effettuata secondo la direttiva VDI no. 4320 (VDI: Associazione degli Ingegneri Tedeschi), foglio 2 "Individuazione delle polveri in ricaduta con recipienti di raccolta vitrei o in plastica (metodo Bergerhoff)".

3.2.1. Probenahme

Die Probenahmeeinrichtung besteht aus einem Auffanggefäß aus Kunststoff mit einem definierten Querschnitt, einem Schutzkorb und einem Ständer. Der atmosphärische Stoffeintrag wird durch Exposition der Auffanggefäße über die vorgesehene Messdauer von 30 ± 2 Tagen erfasst.

Nach Beendigung der vorgeschriebenen Expositionsdauer werden die Auffanggefäße aus den Schutzkörben genommen, sofort dicht verschlossen und in Transportkisten verpackt (nach VDI 4320).

3.2.2. Verfahren zur Bestimmung des organischen Anteils im partikelförmigen Niederschlag

Nach dem Abwägen des Staubniederschlags auf der Analysenwaage Mettler AT 261 DeltaRange wird das Probengefäß (Abdampfschale Schott-Duran Durchmesser 95 mm) im Trockenschrank auf 200°C erhitzt. Anschließend erfolgt die Umschichtung der Gefäße in den auf 400°C vorgeheizten Muffelofen.

Nach einer Stunde bei 400°C im Muffelofen werden die Probengefäße unter Rücksichtnahme der Reihenfolge der Gläser in den Exsikkator gegeben. Dort kühlen sie zirka 1 Stunde aus. Anschließend werden die Gefäße in den klimatisierten Wägeraum gestellt.

Nach VDI 4320 werden sie dort stehen gelassen, bis sie die konstante Temperatur des Wägeraums erreicht haben (zirka 1 Stunde). Anschließend erfolgt die Auswaage wieder mit der Analysenwaage Mettler AT 261 DeltaRange und die Berechnung mittels eines EXCEL Datenblattes.

3.2.3. Verfahren zum sauren Aufschluss von partikelförmigem Niederschlag

Nach dem Abwägen des Staubniederschlags auf der Analysenwaage Mettler AT 261 DeltaRange wird das Probengefäß (Abdampfschale Schott-Duran Durchmesser 95 mm) mit 100 – 150 ml Aufschlussäure (Salzsäure Merck Nr. 319 und Salpetersäure Merck Nr. 452 im Verhältnis 1:1) befüllt.

3.2.1. Campionamento

L'attrezzatura per il campionamento è costituita da un recipiente di raccolta in plastica con un diametro definito e un cestello protettivo munito di asta. Lo input atmosferico è rilevato tramite l'esposizione dei recipienti di raccolta durante il periodo determinato che comprende 30 ± 2 giorni.

Concluso il periodo di esposizione prescritto, i recipienti di raccolta vengono recuperati dai cestelli protettivi, immediatamente chiusi ermeticamente e sistemati in un'apposita cassa di trasporto (secondo VDI 4320).

3.2.2. Metodo per l'individuazione della quota organica nelle particelle in ricaduta

Dopo la pesatura delle polveri in ricaduta sulla bilancia Mettler AT 261 DeltaRange il recipiente per campioni (ciotola per evaporazione Schott-Duran, diametro 95 mm) viene riscaldato a 200°C nella stufa per essiccazione. Di seguito i recipienti vengono trasferiti nel forno elettrico a muffola preriscaldato a 400°C .

Dopo un'ora nella muffola a 400°C i recipienti per campioni vengono spostati nell'essiccatore - sempre considerando l'ordine dei barattoli - per far scendere in un'altra ora la temperatura dei campioni. Di seguito i barattoli vengono trasferiti nella sala ad aria condizionata per la pesatura.

Secondo le direttive VDI 4320 rimangono in questa sala affinché non abbiano raggiunto la temperatura costante della sala (un'ora incirca) per misurare poi di nuovo il loro peso sulla bilancia Mettler AT 261 DeltaRange. Le calcolazioni vengono effettuate in un foglio di calcolo creato con EXCEL.

3.2.3. Metodo per la decomposizione acida delle particelle in ricaduta

Dopo la pesatura delle polveri in ricaduta sulla bilancia Mettler AT 261 DeltaRange nel recipiente per campioni (ciotola per evaporazione Schott-Duran, diametro 95 mm) vengono aggiunti 100 – 150 ml di reagente (acido cloridrico Merck No. 319 e acido nitrico Merck No. 452 in miscela 1:1).

Das befüllte Gefäß wird auf die Ceranfeld-Heizplatte gestellt und mit einem Uhrglas bedeckt. Anschließend erfolgt das Abdampfen der Säure bzw. dessen Reduktion auf < 50 ml. Nach dem Auskühlen wird die Lösung über ein Schwarzbandfilter (Schleicher & Schuell Nr. 589) abfiltriert und auf 50 ml aufgefüllt.

Questo recipiente viene posto sul piano di cottura in vetroceramica e coperto con un vetro sferico. Segue l'evaporazione dell'acido nonché la sua riduzione alla quantità di < 50ml. La soluzione fredda viene filtrata con filtro blackribbon (Schleicher&Schuell No. 589) e portata a volume di 50 ml con acqua bi-destillata.

Die Übergabe bzw. die Aufbewahrung der Lösung erfolgt in einem polyfluorierten Gefäß der Firma Nalgene.

La consegna ossia la conservazione della soluzione è effettuata in un recipiente rivestito di polifluoro della ditta Nalgene.

3.2.4. Bestimmung der Elementverteilung im Staubniederschlag

Die Übergabe der aufgeschlossenen Staubniederschlagsproben erfolgt intern an die „Schnittstelle Wasserlabor“. Dort werden die Proben mittels folgender Untersuchungsmethoden auf die Elementverteilung untersucht.

3.2.4. Individuazione della distribuzione degli elementi nelle polveri in ricaduta

La consegna dei campioni delle polveri in ricaduta decomposti è effettuata all'interfaccia interna, cioè al dipartimento laboratorio acqua, dove i campioni vengono esaminati riguardante la distribuzione degli elementi con i metodi seguenti.

Verfahrensanweisung Ordine di procedimento	Methode – Kurzbeschreibung Metodo – Descrizione compatta
UA_Z_AES1	Bestimmung von 21 Metallen und Metalloiden mittels induktiv gekoppelten Plasmas - Atomemissionsspektrometrie (Routine 1). Die Kalibrierung erfolgte in wässriger Matrix. Individuazione di 21 metalli e metalloidi tramite spettrofotometria di assorbimento atomico a plasma accoppiato induttivamente (Routine 1). La calibrazione è eseguita sulla matrice acquosa.

Tabelle 4: Untersuchungsmethoden zur Bestimmung der Elementverteilung

Tabella 4: Metodi analitici per l'individuazione della distribuzione degli elementi

4. DOKUMENTATION UND PRÄSENTATION DER MESSERGEBNISSE

4. DOCUMENTAZIONE E PRESENTAZIONE DEI RISULTATI DI RILEVAMENTO

4.1. Messergebnisse Immissionsmessungen

4.1. Risultati delle misurazioni delle immissioni

Die Messergebnisse zu den kontinuierlichen Immissionsmessungen sind der Beilage 1 – 96 (Monatsberichte der einzelnen Stationen von Jänner bis Dezember 2019) zu entnehmen.

I risultati delle misurazioni continue delle immissioni sono ricavabili dall'allegato 1 – 96 (Relazioni mensili delle stazioni singole da gennaio a dicembre 2019).

Die nachfolgende Tabelle zeigt die Datenverfügbarkeit der Immissionsmessungen für das Jahr 2019:

La tabella seguente indica la disponibilità dei dati delle misurazioni delle immissioni per l'anno 2019:

Messtandort Sito di misurazione	Datenverfügbarkeit NO ₂ Disponibilità dei dati NO ₂	Datenverfügbarkeit PM ₁₀ Disponibilità dei dati PM ₁₀
BBT1 Ibk - Frauenanger	98 %	97 %
BBT2 SteinachSiegreith	98 %	100 %
BBT3 Steinach Sachsen	95 %	99 %
BBT4 Ibk - Sillhöfe	93 %	96 %
BBT6 Ampass	95 %	99 %
BBT7 Tulfes	98 %	97 %

Tabelle 5: *Datenverfügbarkeit an den jeweiligen Messstandorten*

Tabella 5: *Disponibilità dei dati presso i relativi siti di misurazione*

4.2. Messergebnisse Staubniederschlagsmessungen

Die Messergebnisse der Staubniederschlagsmessungen (Bergerhoff) sind in Kapitel 5.3. dargestellt.

Zum Teil besteht die Möglichkeit, dass aufgrund verschiedener Vorkommnisse keine Messergebnisse der Staubniederschlagsmessungen erhoben werden können. Gründe für Ausfälle der Staubniederschlagsmessungen sind im Allgemeinen Beschädigungen am Auffanggefäß oder auch das Fehlen eines solchen. Des Weiteren können aufgrund von Witterungseinflüssen die Proben gefrieren oder stark verschmutzt sein.

Nachfolgend eine Auflistung dieser Ausfälle bezogen auf die jeweiligen Messstandorte:

Messtandort/Sito di misurazione	Ausfälle (Datum)/Interruzioni (data)
----	----

Tabelle 6: *Zeitraum der Ausfälle der Staubniederschlagsmessungen an den jeweiligen Messstandorten*

4.2. Risultati delle misurazioni riguardanti le misurazioni delle polveri in ricaduta

I risultati delle misurazioni delle polveri in ricaduta (metodo Bergerhoff) sono ricavabili dal capitolo 5.3.

È probabile che a causa di vari episodi la realizzazione delle misurazioni delle particelle in ricaduta sia impossibile. Cause per le interruzioni delle misurazioni delle polveri in ricaduta sono generalmente danni ai recipienti di raccolta o la loro mancanza totale. Inoltre i campioni possono essere congelati o inquinati fortemente a causa di condizioni meteorologiche.

La tabella seguente elenca tali interruzioni presso i siti di misurazione indicati:

Tabella 6: *Periodo delle interruzioni delle misurazioni delle particelle in ricaduta presso i rispettivi siti di misurazione*

5. DISKUSSION DER MESSERGEBNISSE

5.1. Stickoxide

Die nachfolgende Tabelle zeigt die Monatsmittelwerte an NO₂ der jeweiligen Messstationen im Jahr

5. DISCUSSIONE DEI RISULTATI DI RILEVAMENTO

5.1. Ossidi d'azoto

La tabella seguente indica i valori medi mensili di NO₂rilevati presso i relativi siti di misurazione durante

2019.

l'anno 2019.

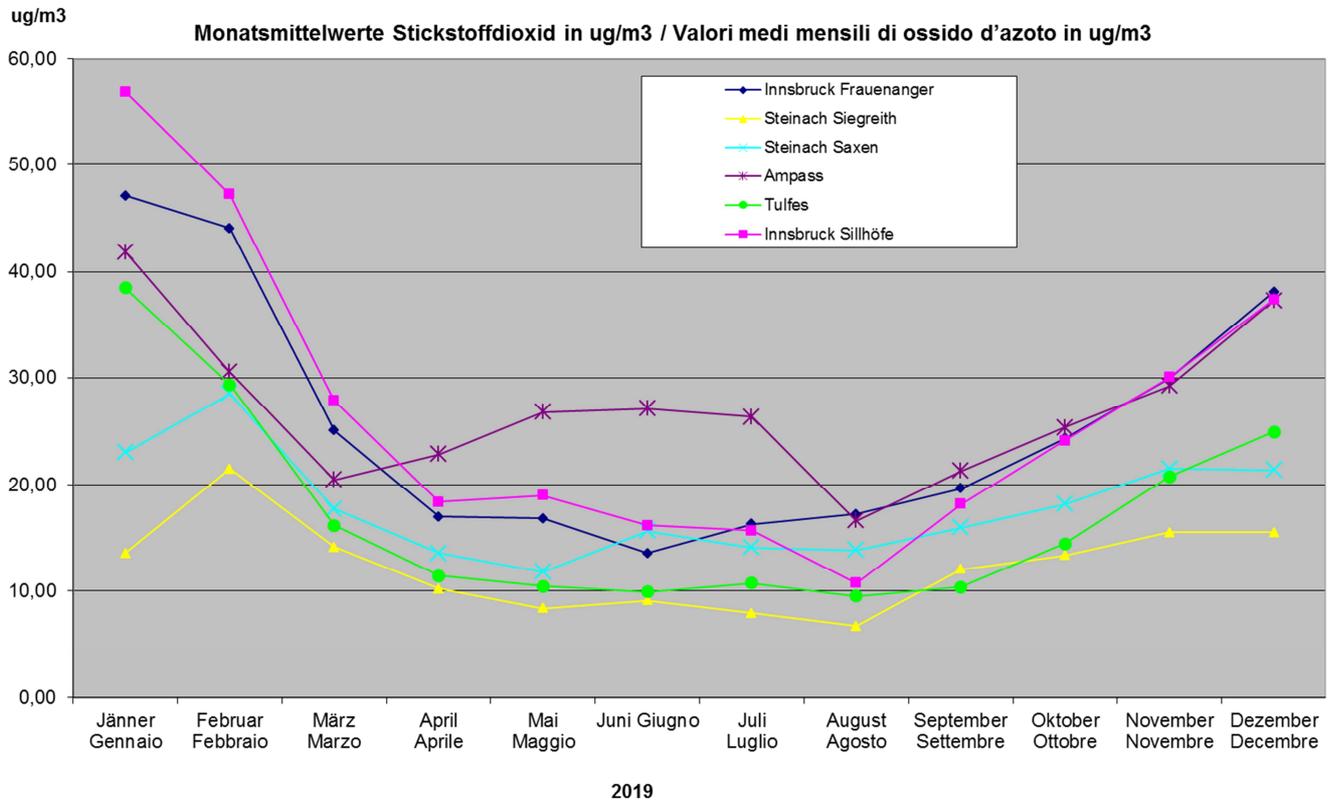


Abbildung 9: Darstellung Konzentrationsverläufe der Monatsmittelwerte NO₂ 2019

Illustrazione 9: Sviluppo delle medie mensili delle concentrazioni NO₂ dell'anno 2019

Nach wie vor weisen die städtischen Immissionsmessstellen in Innsbruck und die autobahnahe Messstelle in Ampass die höchste Gesamtbelastung sowohl für NO als auch für NO₂ auf. Die Werte der ländlich situierten Messstellen in Steinach sowie der autobahnnahen Messstelle in Tulfes sind deutlich niedriger als die vorher genannte Gruppe.

I siti urbani di misurazione delle immissioni a Innsbruck e quello situato in vicinanza dell'autostrada ad Ampass presentano ancora il più alto carico complessivo di NO nonché di NO₂. I valori registrati presso i siti di misurazione situati in campagna a Steinach e presso quello situato in vicinanza dell'autostrada a Tulfes risultano nettamente più bassi di quelli rilevati presso i siti succitati.

Die höchsten Monatsmittelwerte wurden, im ersten Quartal bei der Station Innsbruck Sillhöfe gemessen. Danach steigt die Station in Ampass bis Juli mit Abstand an die Spitze der Verläufe und anschließend, gemeinsam mit den beiden städtischen Messstellen in Innsbruck, ab Herbst sehr ähnliche Mittelwerten, das Jahr zu beenden.

I valori medi mensili più alti sono stati misurati nel primo trimestre presso la stazione di Innsbruck Sillhöfe. Successivamente la stazione di Ampass ha registrato fino a luglio un netto aumento fino a raggiungere la cima dei decorsi d'immissione. Infine, insieme con entrambe le stazioni di misurazione urbane di Innsbruck, ha terminato l'anno con valori medi molto simili a partire dall'autunno.

Grundsätzlich zeigt die grafische Darstellung der Monatsmittelwerte ähnliche jahreszeitliche Trends an allen Messstellen abgesehen von der Messstelle in Ampass.

La rappresentazione grafica dei valori medi mensili mostra fondamentalmente trend stagionali che sono simili presso tutte le stazioni di misurazione ad eccezione della stazione di misurazione di Ampass.

Im Vergleich zum Vorjahr zeigt sich, bis auf die Messstellen in Steinach am Brenner (Saxen und Siegreith), an allen Messstellen wiederum ein Absinken der Werte.

Rispetto all'anno precedente si nota che, ad eccezione delle stazioni di misurazione di Steinach am Brenner (Saxen e Siegreith), vi è stato un calo generale dei valori presso tutte le stazioni di misurazione.

Die nachfolgende Tabelle zeigt die Jahresmittelwerte NO₂ der jeweiligen Messstationen aus dem Jahr 2019:

La tabella seguente indica le medie annuali NO₂ rilevate presso le relative stazioni di misurazione durante l'anno 2019:

Jahresmittelwerte 2019 [$\mu\text{g}/\text{m}^3$] Valori medi annuali 2019 [$\mu\text{g}/\text{m}^3$]			
BBT1 Ibk-Frauenanger	25,6	BBT4 Ibk-Sillhöfe	25,4
BBT2 SteinachSiegreith	12,2	BBT6 Ampass	26,7
BBT3 Steinach Saxen	17,9	BBT7 Tulfes	17,1

Tabelle 7: Jahresmittelwerte NO₂

Tabella 7: Valori medi annuali NO₂

Der NO₂ **JMW-Grenzwert** gemäß **IG-Luft** liegt bei **30 $\mu\text{g}/\text{m}^3$** . Dieser JMW-Grenzwert wurde an keiner Messstelle überschritten.

Secondo la **legge sulla protezione dalle immissioni-Aria** il **valore limite MA** per NO₂ è stato sancito con **30 $\mu\text{g}/\text{m}^3$** . Questo valore limite MA non è stato superato presso nessun sito di misurazione.

Der NO₂ **HMW-Grenzwert** von **200 $\mu\text{g}/\text{m}^3$** wurde im Messjahr 2019 an keiner Messstelle überschritten.

Il valore **limite MM** di NO₂ - sancito con **200 $\mu\text{g}/\text{m}^3$** - durante l'anno in esame 2019 non è stato superato presso nessun sito di misurazione.

5.2. Staubkonzentration (PM₁₀)

Die nachfolgend als Staub in $\mu\text{g}/\text{m}^3$ (korr.) oder PM10(korr.) angegebenen Werte sind Werte, die aus kontinuierlichen Messungen unter Verwendung von PM10-Probenahmeköpfen erhoben und anschließend mit dem sog. "Gerädefaktor" $[(c+1,43)/0,85]$ korrigiert wurden.

Die nachfolgende Tabelle zeigt die Monatsmittelwerte an PM₁₀ der jeweiligen Messstationen im Jahr 2019.

5.2. Concentrazione delle polveri (PM₁₀)

I valori adottati nel grafico seguente espressi nelle unità $\mu\text{g}/\text{m}^3$ (korr.) ossia PM10(korr.) sono valori rilevati da misurazioni continue tramite teste di campionamento PM10 e, di seguito, corretti con il cosiddetto "fattore dell'apparecchio" $[(c+1,43)/0,85]$.

La tabella seguente indica i valori medi mensili PM₁₀ rilevati presso le relative stazioni di misurazione nell'anno 2019.

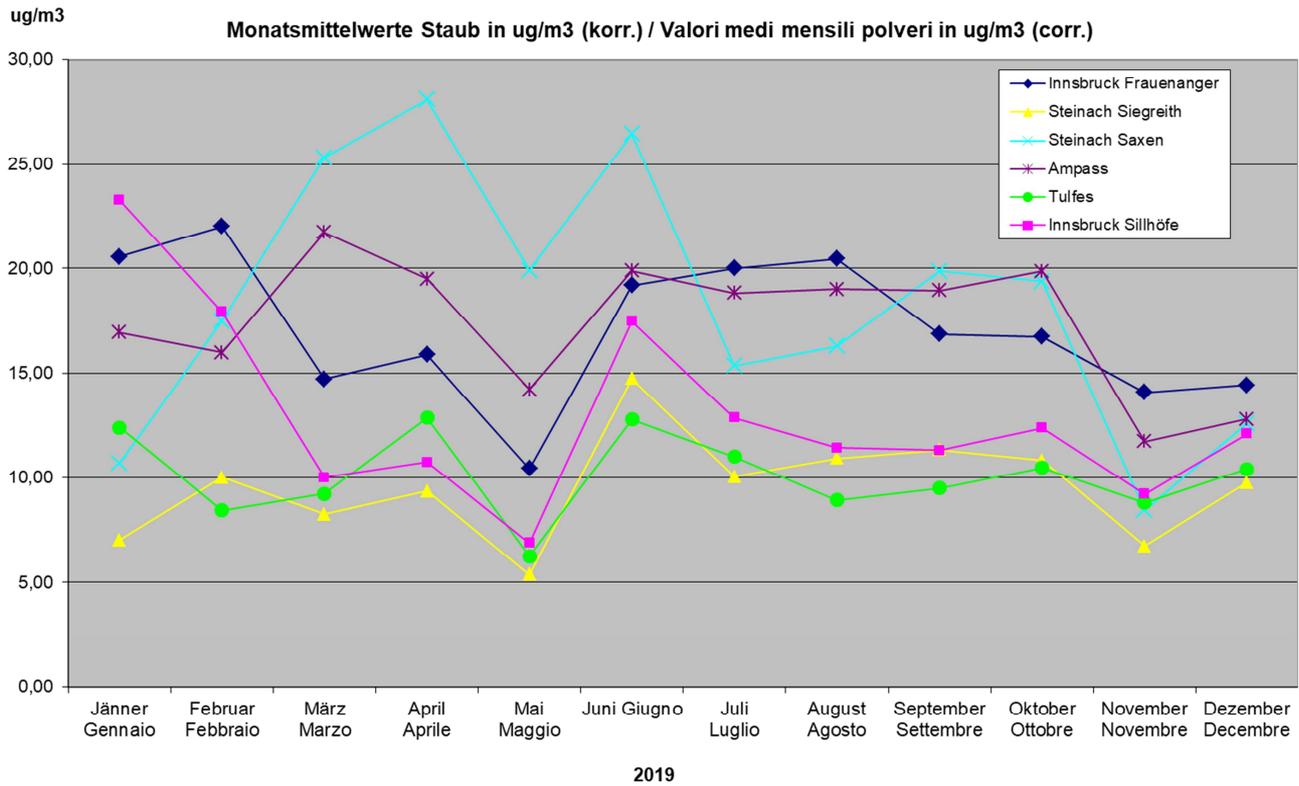


Abbildung 10: Darstellung Konzentrationsverläufe der Monatsmittelwerte PM₁₀ im Jahr 2018 unter Berücksichtigung des Standortfaktors

Illustrazione 10: Sviluppo delle medie mensili della concentrazione PM₁₀ nell'anno 2018 (con il fattore di sito applicato)

Die Messstelle Ampass, der bisherige Spitzenreiter, wird von der Messstelle in Steinach Saxen abgelöst. Dies ist auf die Wiederaufnahme der Bauarbeiten zurückzuführen. Zu Jahresbeginn und Jahresende rückt die Messstelle Innsbruck Frauenanger, wie in den Jahren zuvor, an die Spitze.

La stazione di misurazione Ampass, sinora capolista, è stata superata dalla stazione di misurazione di Steinach Saxen. Ciò va ricondotto alla ripresa dei lavori di costruzione. All'inizio e alla fine dell'anno la stazione di misurazione di Innsbruck Frauenanger è tornata in vetta alla classifica, come già accaduto anni addietro.

Die Messstelle in Steinach Siegreith sowie die Messstelle in Tulfes zeigen wie in den Jahren zuvor die niedrigsten PM₁₀ Monatsmittelwerte.

La stazione di misurazione di Steinach Siegreith e la stazione di misurazione di Tulfes mostrano, come già accaduto in passato, i valori medi mensili di PM₁₀ più bassi.

Die nachfolgende Tabelle zeigt die Jahresmittelwerte PM₁₀ der jeweiligen Messstationen aus dem Jahr 2019:

La tabella seguente indica i valori medi annuali PM₁₀ rilevati presso le relative stazioni di misurazione nell'anno 2019.

Jahresmittelwerte 2019 [µg/m ³] Rohdaten / Korrigierte Daten Valori medi annuali 2019 [µg/m ³] dati grezzi / Dati corretti			
BBT1 Ibk-Frauenanger	11,7 / 15,4	BBT4 Ibk-Sillhöfe	11,8 / 15,5
BBT2 Steinach Siegreith	9,0 / 12,3	BBT6 Ampass	15,6 / 20,1
BBT3 Steinach Saxen	18,0 / 22,9	BBT7 Tulfes	9,6 / 13,0

Tabelle 8: Jahresmittelwerte PM₁₀

Tabella 8: Valori medi annuali PM₁₀

Auch hier kommt es zu einem Anstieg der Messwerte im Vergleich zum Vorjahr bei den beiden Mess-

Anche in questo caso si registra un aumento dei valori di misurazione rispetto all'anno precedente per

Misurazioni delle immissioni
Cunicolo esplorativo

stellen in Steinach am Brenner, besonders markant an der Messstelle in Steinach Saxen. Alle anderen Messstellen der Messreihe zeigen ein Absinken zum Vorjahr.

Unter Berücksichtigung des Korrekturfaktors ($X_k = (X + 1,43)/0,85$) wird der **JMW-Grenzwert von 40 $\mu\text{g}/\text{m}^3$** für PM_{10} an keinen Messstandorten überschritten.

Im Messjahr 2019 kam es insgesamt zu neun Überschreitungen des PM_{10} -Werts $\geq 300 \mu\text{g}/\text{m}^3$ als HMW bei der Station Steinach Saxen im April, Mai und Oktober und einer dementsprechenden Alarmierung der Bauaufsicht und damit einhergehenden Auslösung der Sofortmaßnahmen.

Die nachfolgende Tabelle zeigt eine Auflistung der PM_{10} TMW Überschreitungen der einzelnen Immissionsmessstationen.

Tagesmittelwerte $\geq 50,5 \mu\text{g}/\text{m}^3$:

entrambe le stazioni di misurazione di Steinach am Brenner, particolarmente evidente presso la stazione di misurazione di Steinach Saxen. Tutte le altre stazioni di misurazione della linea di misurazione mostrano un calo rispetto all'anno passato.

Tenendo conto del fattore di correzione ($X_k = (X + 1,43)/0,85$) il **valore limite MA** sancito con **40 $\mu\text{g}/\text{m}^3$** per PM_{10} non viene superato presso nessun sito di misurazione.

Nell'anno in esame 2019 il valore di $\text{PM}_{10} \geq 300 \mu\text{g}/\text{m}^3$ come valore medio MM è stato superato per un totale di nove volte presso la stazione di Steinach Saxen ad aprile, maggio e ottobre. Le autorità di sorveglianza dei lavori di costruzione sono state allertate e sono state adottate misure immediate.

La tabella seguente elenca i superamenti dei valori MG PM_{10} rilevati presso le rispettive stazioni di misurazione delle immissioni:

Valori medi giornalieri $\text{PM}_{10} \geq 50,5 \mu\text{g}/\text{m}^3$:

Datum / Data	Frauenanger		Sillhöfe		Ampass		Tulfes		Steinach/Siegreith		Steinach/Saxen	
	PM10 Feinstaub Polveri sottili		PM10 Feinstaub Polveri sottili		PM10 Feinstaub Polveri sottili		PM10 Feinstaub Polveri sottili		PM10 Feinstaub Polveri sottili		PM10 Feinstaub Polveri sottili	
	Rohwert/ Valori grezzi	PM10(korr.) */corr.										
TMW MG	TMW MG	TMW MG	TMW MG	TMW MG	TMW MG	TMW MG	TMW	TMW MG	TMW MG	TMW MG	TMW MG	TMW MG
01.01.19	37,82	46,17			31,88	39,18	42,44	51,61	13,98	18,13		
28.02.19	17,47	22,24	17,67	22,47	14,52	18,76	11,61	15,34	16,75	21,39	43,11	52,40
04.03.19	8,86	12,11	10,64	14,20	17,26	21,99	11,65	15,39	8,77	12,00	53,70	64,86
06.03.19	12,77	16,71	12,64	16,56	17,24	21,97	12,03	15,83	6,71	9,57	78,12	93,58
13.03.19	6,69	9,55	6,45	9,27	11,07	14,71	6,12	8,88	7,10	10,04	63,24	76,08
21.03.19	14,07	18,23	14,07	18,24	30,17	37,18	9,82	13,24	12,34	16,20	61,06	73,52
22.03.19	13,58	17,66	12,44	16,32	28,76	35,51	12,46	16,34	9,16	12,46	62,63	75,36
01.04.19	18,30	23,21	16,08	20,59	30,99	38,14	16,48	21,07	11,14	14,79	41,45	50,45
15.04.19	13,19	17,20	14,46	18,70	26,74	33,14	14,39	18,61	9,23	12,54	48,17	58,36
16.04.19	5,00	7,57	6,55	9,39	13,90	18,03	6,07	8,82	2,68	4,83	57,00	68,74
17.04.19	9,37	12,70	11,11	14,75	21,32	26,77	10,52	14,05	8,72	11,94	51,02	61,71
18.04.19	12,49	16,37	12,07	15,88	17,69	22,49	11,24	14,91	10,59	14,14	76,34	91,50
23.04.19	11,03	14,66	7,97	11,05	11,98	15,78	13,98	18,13	7,18	10,13	68,00	81,68
24.04.19	10,71	14,28	5,92	8,64	11,92	15,71	8,89	12,14	4,21	6,64	54,57	65,89
25.04.19	10,70	14,27	8,70	11,92	15,84	20,31	8,53	11,72	6,16	8,93	52,88	63,89
02.05.19	9,38	12,72	10,16	13,63	17,71	22,52	9,98	13,42	10,02	13,47	119,16	141,88
08.05.19	8,10	11,21	9,17	12,47	12,81	16,76	8,87	12,12	7,46	10,46	81,29	97,31
04.06.19	9,81	13,22	8,60	11,80	14,03	18,19	9,15	12,45	9,15	12,45	42,21	51,34
06.06.19	16,01	20,52	15,50	19,91	17,61	22,40	15,94	20,43	16,09	20,62	42,61	51,81
11.06.19	15,25	19,62	17,94	22,79	16,98	21,66	13,27	17,30	26,28	32,60	54,04	65,26
12.06.19	18,02	22,89	16,79	21,44	20,94	26,32	15,71	20,17	26,42	32,77	50,85	61,51
13.06.19	11,78	15,54	12,25	16,09	15,28	19,66	9,46	12,81	12,25	16,09	41,71	50,75
26.06.19	35,61	43,57	34,81	42,63	37,31	45,57	33,25	40,79	34,17	41,88	47,35	57,39
27.06.19	35,54	43,50	36,84	45,02	44,25	53,74	35,12	43,00	32,37	39,76	43,64	53,03
22.10.19	20,13	25,37	19,59	24,73	26,37	32,71	17,68	22,49	21,51	26,99	49,59	60,02
Anzahl / Numero >50	0	0	0	0	0	1	0	1	0	0	15	24

Tabelle 9: *PM₁₀ TMW Überschreitungen*

Nach dem Immissionsschutzgesetz-Luft (IG-L) liegt der Grenzwert für den **PM₁₀-TMW bei 50 µg/m³**. Eine Überschreitung kommt erst ab 50,5 µg/m³ zustande, wobei **25 Überschreitungen** zulässig sind.

Unter Berücksichtigung der korrigierten PM₁₀ TMW (Korrekturfaktor: $X_k = (X + 1,43)/0,85$) ist die Überschreitungstoleranz an keinen Immissionsmessstationen überschritten worden.

5.3. Staubniederschlag

Der gesetzlich vorgegebene Grenzwert für den Staubniederschlag liegt nach Immissionsschutzgesetz-Luft bei 210 mg/(m²*d) bezogen auf den Jahresmittelwert, was in der hier verwendeten Dimension 0,21 g/(m²*d) entspricht.

Im Jahr 2019 wurde dieser Grenzwert bei keiner Station überschritten.

Tabella 9: *Superamento dei valori MG PM₁₀*

Secondo la legge sulla protezione dalle immissioni-Aria (IG-L) il **valore limite per MG PM₁₀** è sancito con **50 µg/m³**. Un superamento avviene se il valore tocca i 50,5 µg/m³. Per l'anno 2015 erano permessi **25 superamenti**.

Considerando i valori corretti (fattore di correzione: $X_k = (X + 1,43)/0,85$) MG PM₁₀ la tolleranza di superamento non è stata sorpassata presso nessuna stazione di misurazione delle immissioni.

5.3. Polveri in ricaduta

A norma della legge sulla protezione dalle immissioni-Aria il valore limite per polveri in ricaduta è di 210 mg/(m²*d) rispetto al valore medio annuale, che nella dimensione qui addotta corrisponde a 0,21 g/(m²*d).

Nell'anno 2019 questo valore limite non è stato superato presso nessuna stazione.

Messtandort Sito di misurazione	Staubniederschlag/Polveri in ricaduta JMW/MA [g/m ² /d]	* Daten- verfügbarkeit / Messperioden Disponibilità dei da- ti/Periodi di misura- zione
Grenzwert IG-Luft Valorelimite IG-L	0,210	-
Ahrnhof	0,109	100% / 13
Windmessenanlage Padaster Impianto di misurazione vento valle Padastertal	0,055	100% / 13
Ibk-Frauenanger	0,035	100% / 13
SteinachSiegreith	0,032	100% / 13
Wolf	0,350	100% / 13
Ibk-Sillschlucht	0,120	100% / 13
Unterberg	0,110	100% / 12
A12 Raststätte/Area servizio A12	0,137	100% / 13

* Datenverfügbarkeit bezogen auf das Gesamtjahr; Messperioden: Perioden in denen tatsächlich Messungen durchgeführt wurden, ungeachtet aller Ausfälle.

* Disponibilità dei dati rispetto all'intero anno; Periodi di misurazione: periodi, in cui sono state eseguite effettivamente le misurazioni, senza riguardo alle interruzioni.

Tabelle 10: *Vergleich der JMW mit den gesetzlich vorgeschriebenen Grenzwerten*

Tabella 10: *Valori MA contro i valori limite previsti dalla legge*

Die Messwerte des Staubniederschlags, Organischer Anteil, Ca und Mg des Staubniederschlags von allen Bergerhoffmessstellen sind jeweils in einem grafischen Jahresverlauf dargestellt (siehe Beilagen 97 - 104).

I valori di misurazione delle polveri in ricaduta, quota organica, Ca e Mg nella ricaduta di particelle rilevati presso i siti di misurazione secondo metodo Bergerhoff sono rappresentati nei relativi grafici che tracciano il decorso annuale (vedi allegati 96 – 104).

6. VERZEICHNISSE

6. ELENCHI

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6.6. Abkürzungsverzeichnis

TMW	Tagesmittelwert
HMW	Halbstundenmittelwert
MMW	Monatsmittelwert
JMW	Jahresmittelwert
PM10	Feinstaub < 10 µm Korndurchmesser
NO2	Stickstoffdioxid
NOx	Stickoxide
WiRi	Windrichtung
WiGe	Windgeschwindigkeit
LT	Umgebungstemperatur
Rel.F	Relative Luftfeuchte

6.6. Elenco delle abbreviazioni

MG	Valore medio giornaliero
MM	Valore medio ogni Mezz'ora
Mmens	Valore medio mensile
MA	Valore medio annuale
PM10	Polveri sottili < 10 µm diametro
NO2	Diossido d'azoto
NOx	Ossidi d'azoto
DV	Direzione del vento
VV	Velocità del vento
TA	Temperatura dell'ambiente
UArel	Umidità relativa dell'aria

6.7. Pläne und sonstige Unterlagen

6.7.5. Zugehörige Unterlagen

Tabellarische und grafische Darstellung der erhobenen Messwerte der einzelnen Messstellen im Jahr 2019 (siehe Beilagen 1 – 96)

Grafische Darstellung des Staubneiderschlags, Organischer Anteil, Ca und Mg der Bergerhoffmessstellen im Jahr 2019 (siehe Beilagen 97 – 104)

Tabellarische Auswertung der Tagesmittelwerte PM₁₀ im Jahr 2019(siehe Beilagen 105 – 105)

6.7. Elaborati grafici ed ulteriore documentazione

6.7.5. Documentazione attinente

Rappresentazione in forma di tabelle e grafici dei valori rilevati presso i singoli siti di misurazione nell'anno 2019 (vedi allegati 1 – 96)

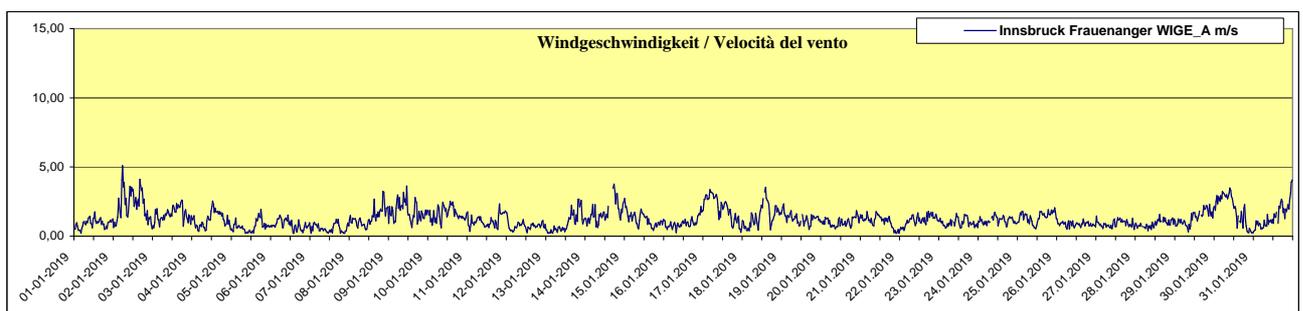
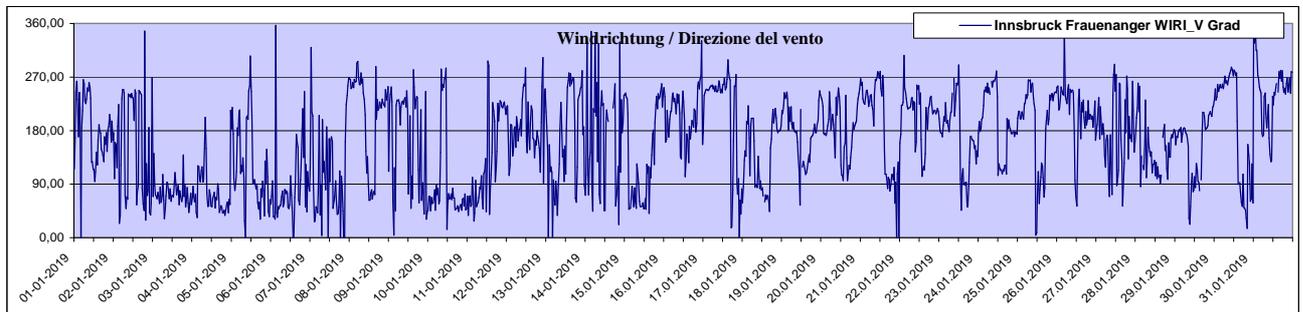
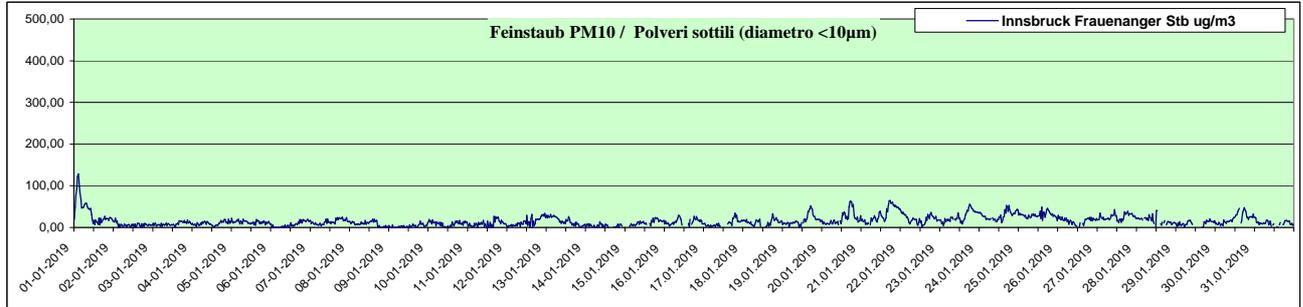
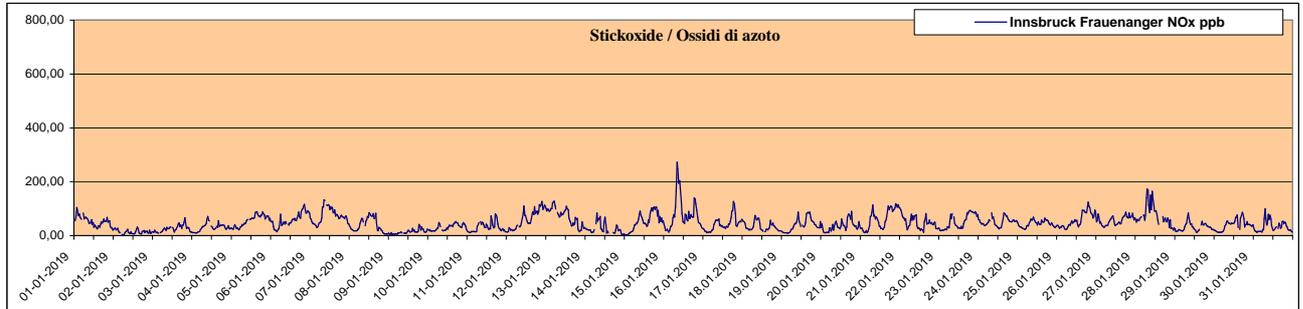
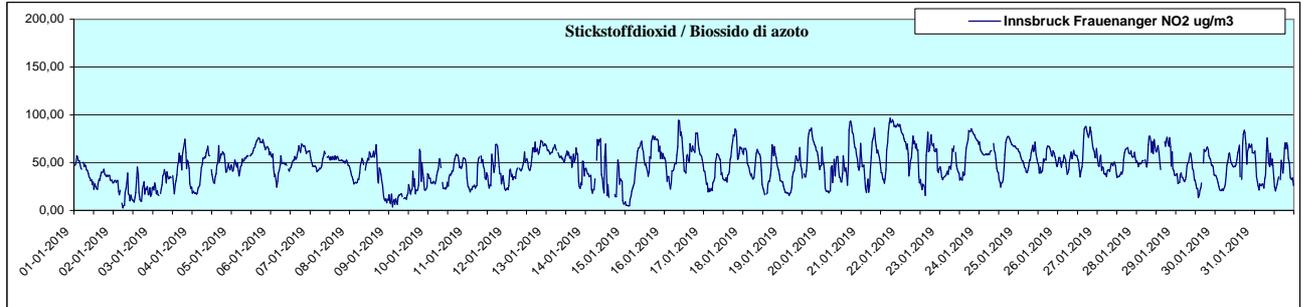
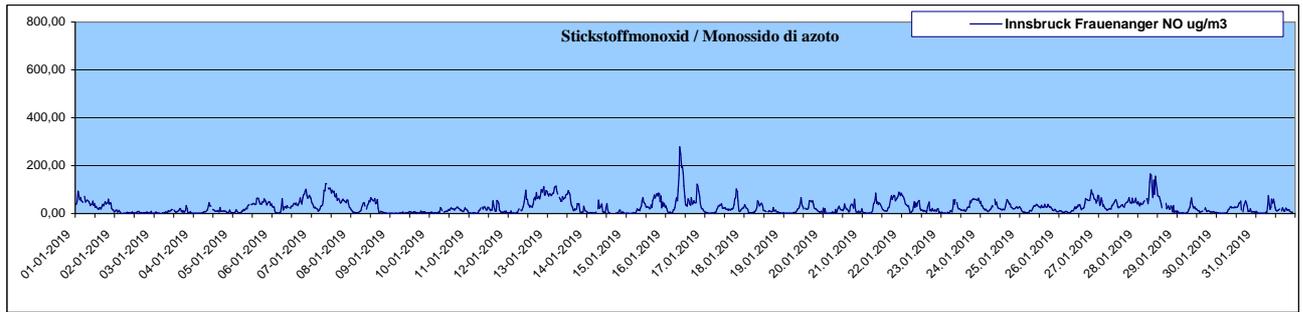
Rappresentazione grafica delle polveri in ricaduta, quota organica, Ca e Mg dei siti di misurazione (metodo Bergerhoff) rilevati nell'anno 2019 (vedi allegati 97 – 104)

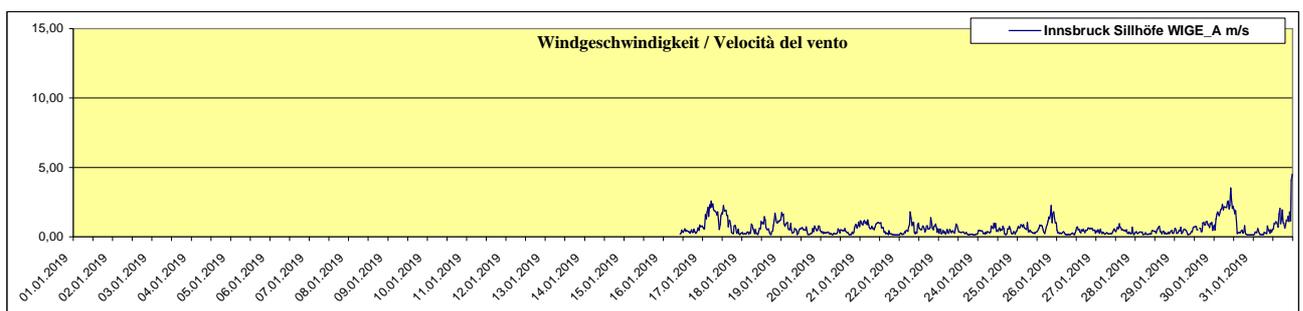
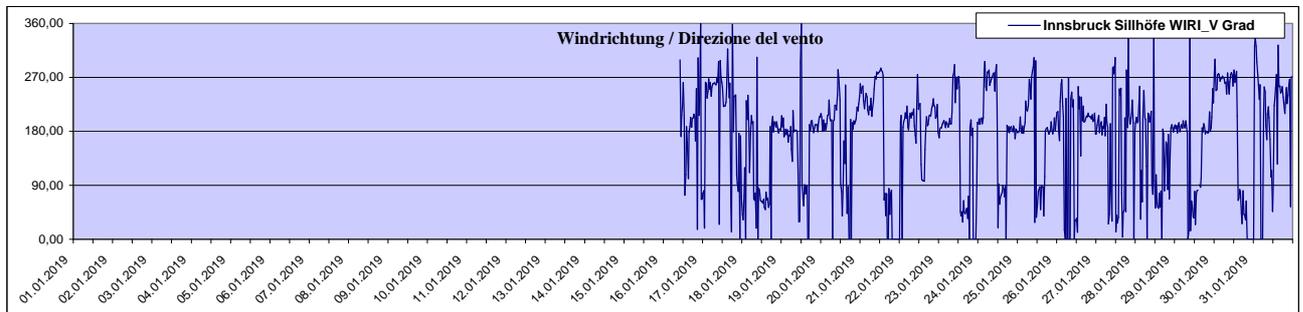
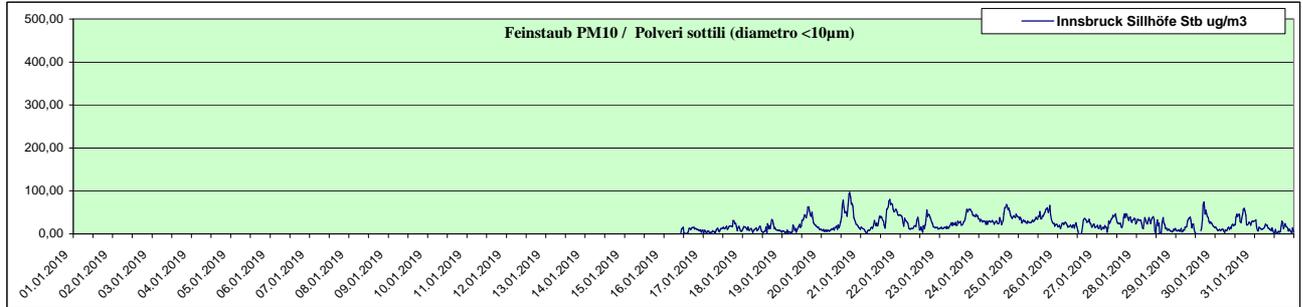
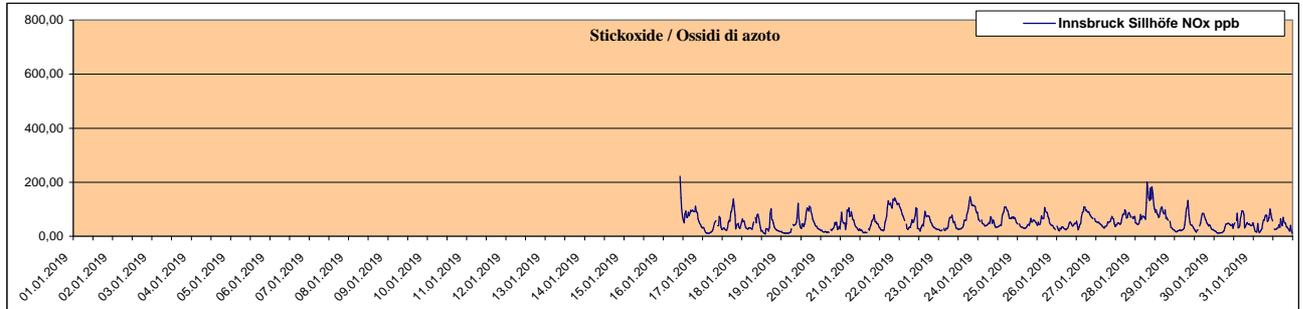
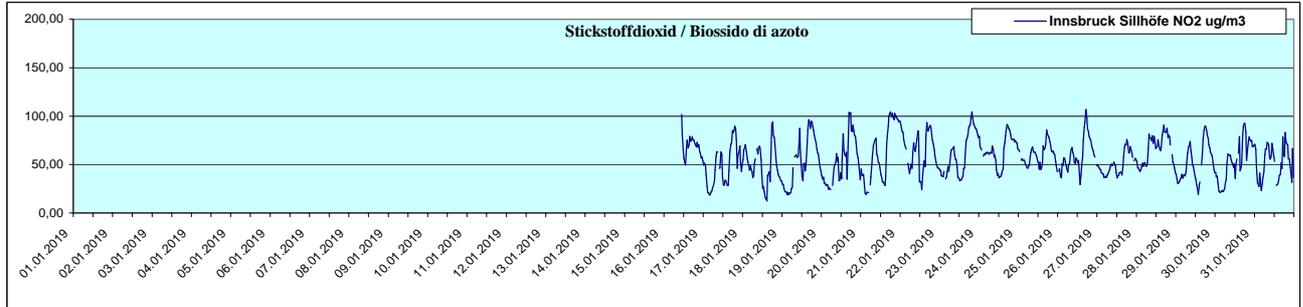
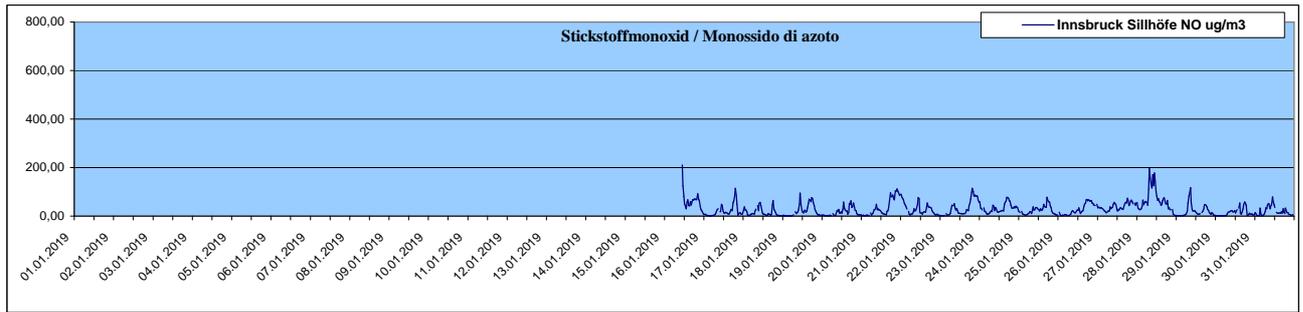
Analisi tabellare dei valori medi giornalieri PM₁₀ rilevati nell'anno 2019 (vedi allegati 105 – 105)

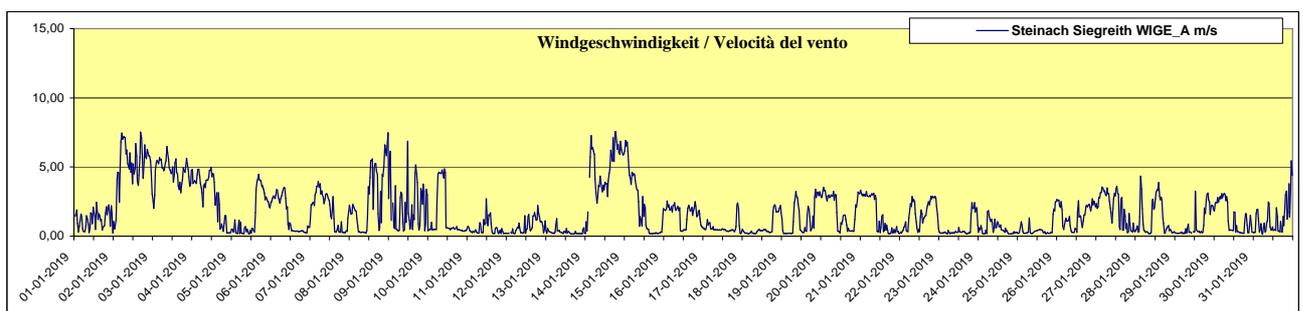
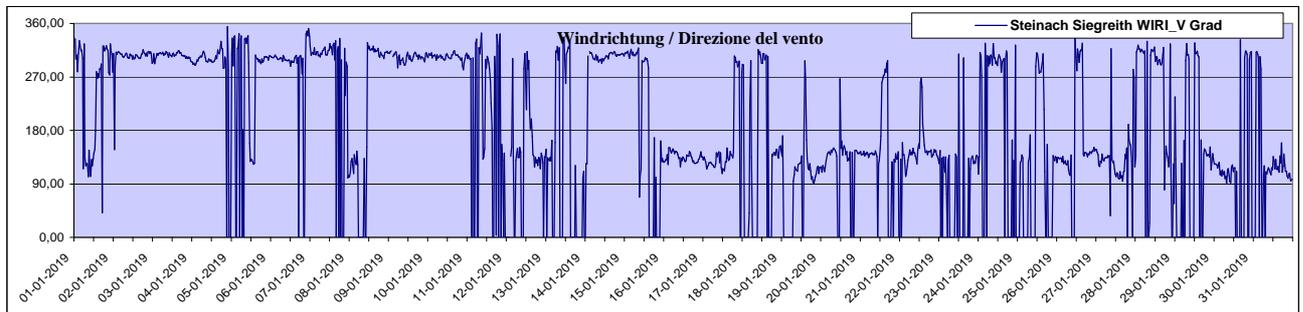
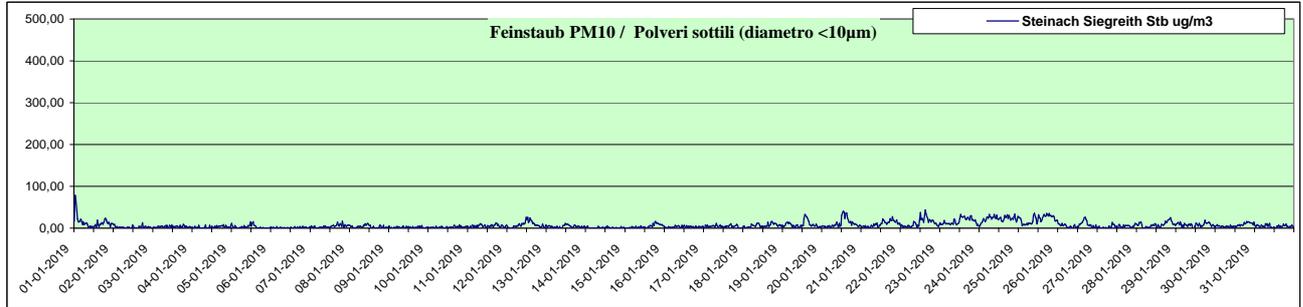
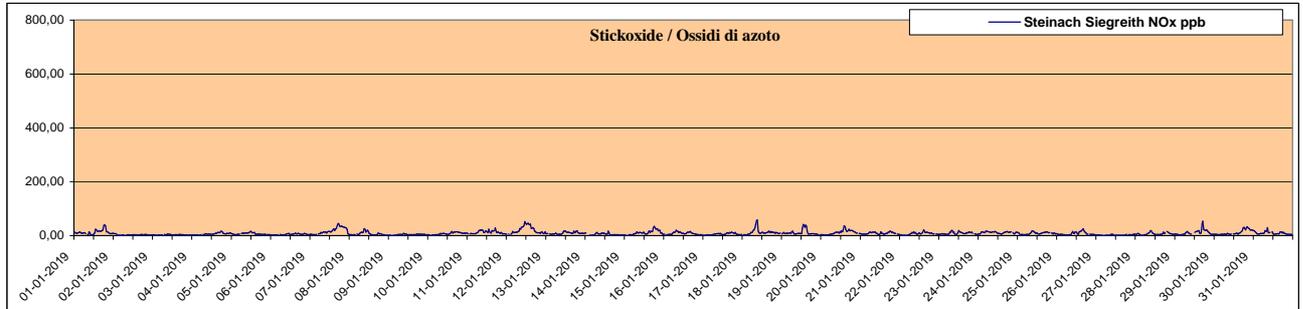
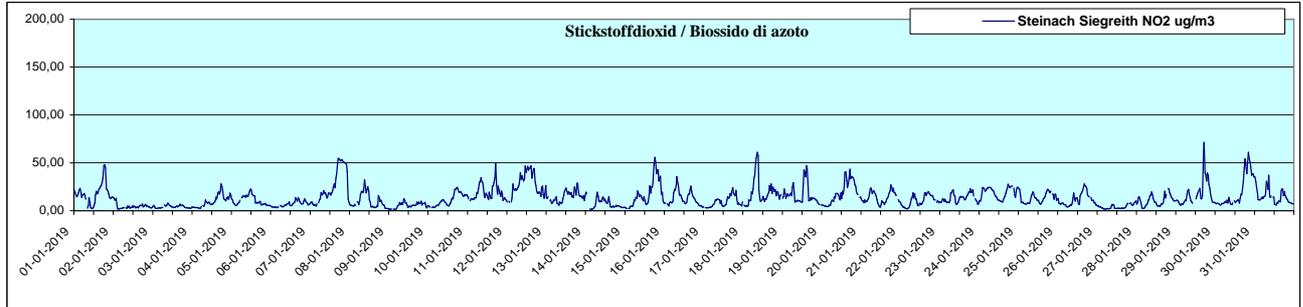
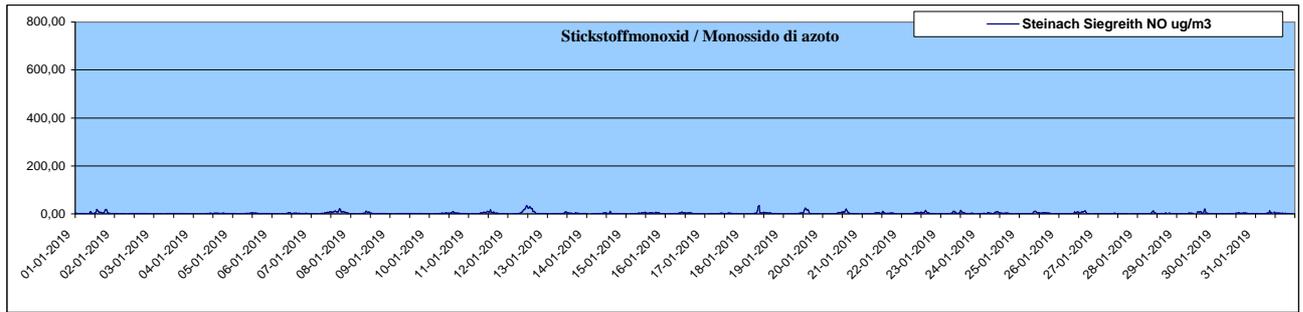
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	279,11	117,40	62,04	98,02	3		0	
Innsbruck Sillhöfe	210,70	29,11	64,50	106,66	1		0	
Steinach Siegreith	35,13	2,31	7,86	14,84	0		0	
Steinach Saxen	98,72	9,46	21,59	48,86	0		0	
Ampass	272,68	41,27	92,56	127,03	7		0	
Tulfes	203,75	14,74	44,09	75,49	0		0	

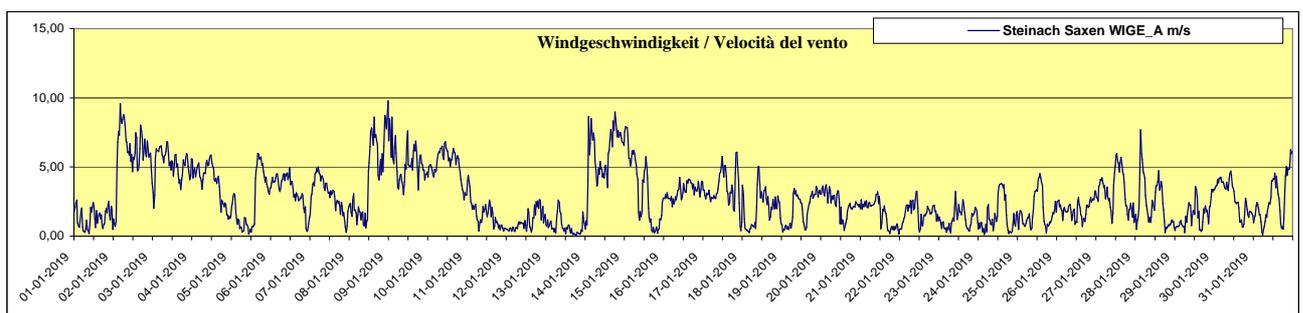
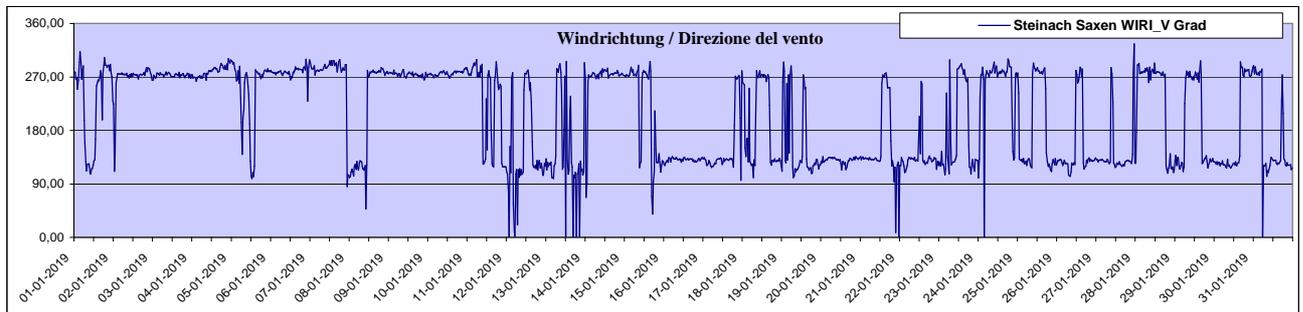
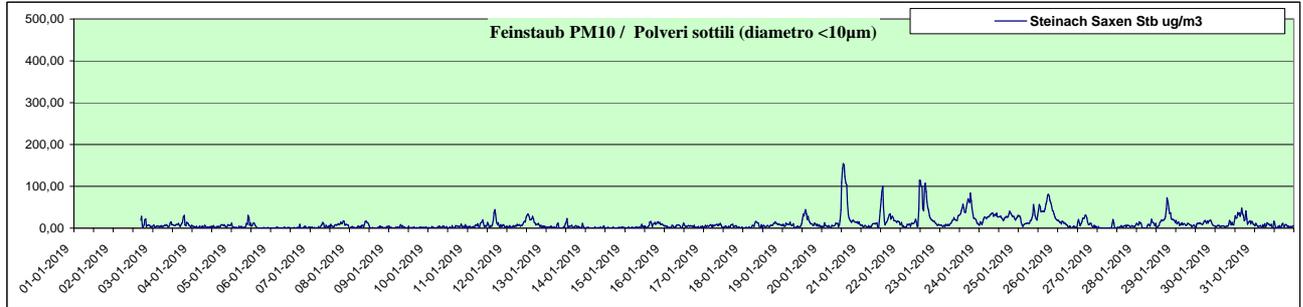
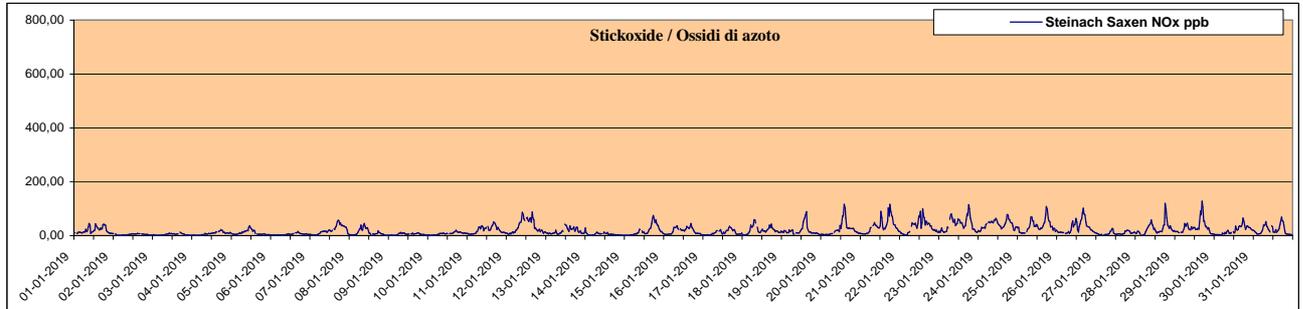
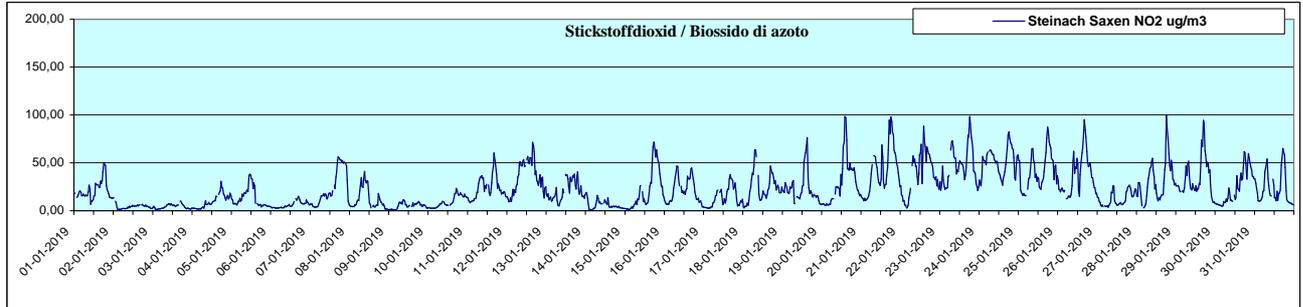
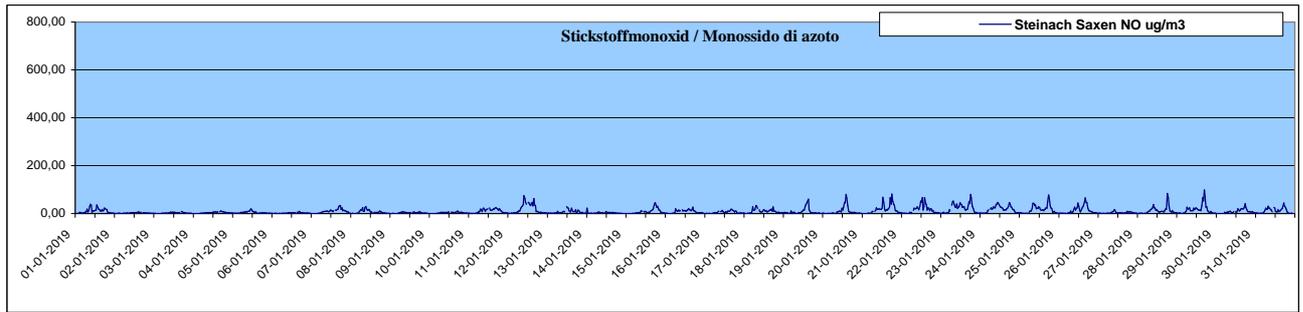
Stickstoffdioxid				Biossido di azoto				
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	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	96,49	47,02	61,89	83,87	0		0	
Innsbruck Sillhöfe	106,69	56,83	64,83	98,93	11		0	
Steinach Siegreith	71,43	13,55	27,81	47,35	0		0	
Steinach Saxen	100,03	23,01	51,33	75,10	1		0	
Ampass	92,65	41,88	54,70	71,80	0		0	
Tulfes	87,86	38,47	56,48	77,51	0		0	

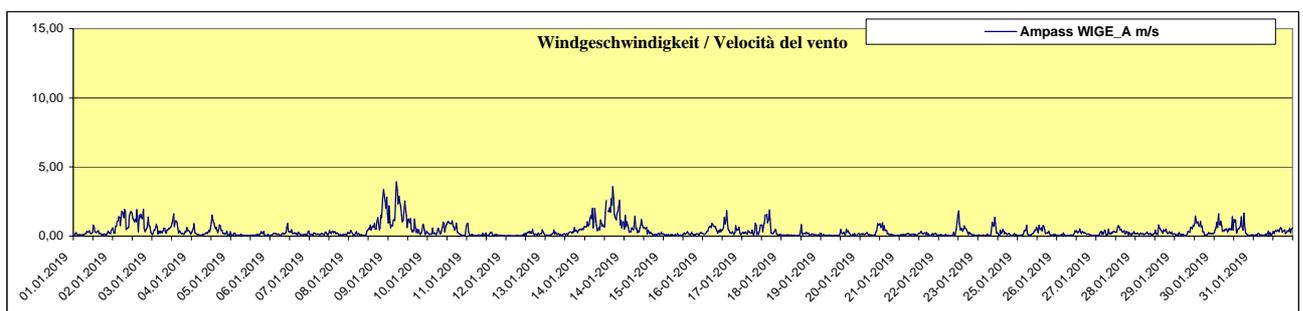
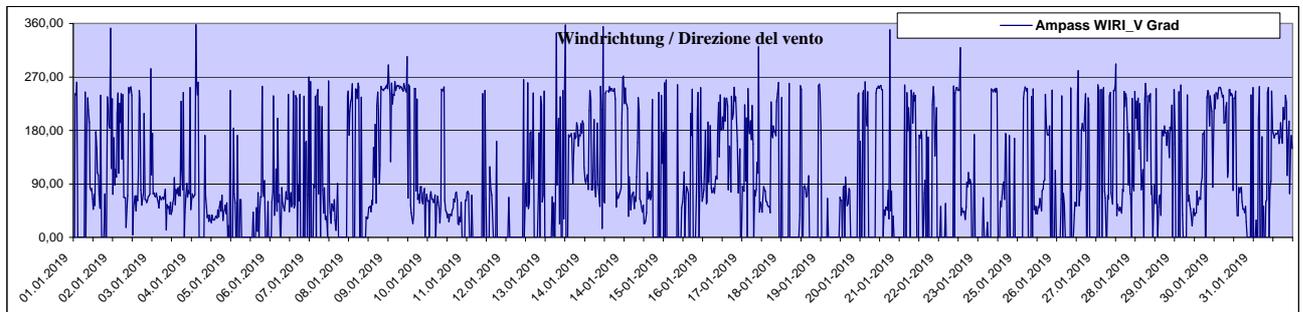
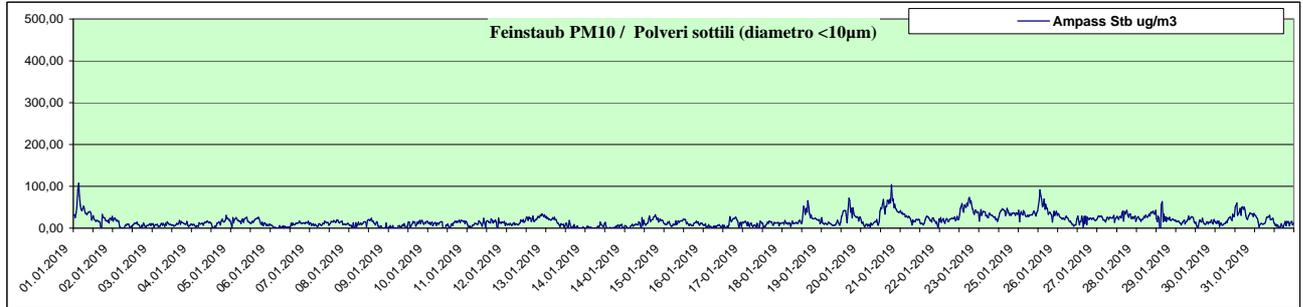
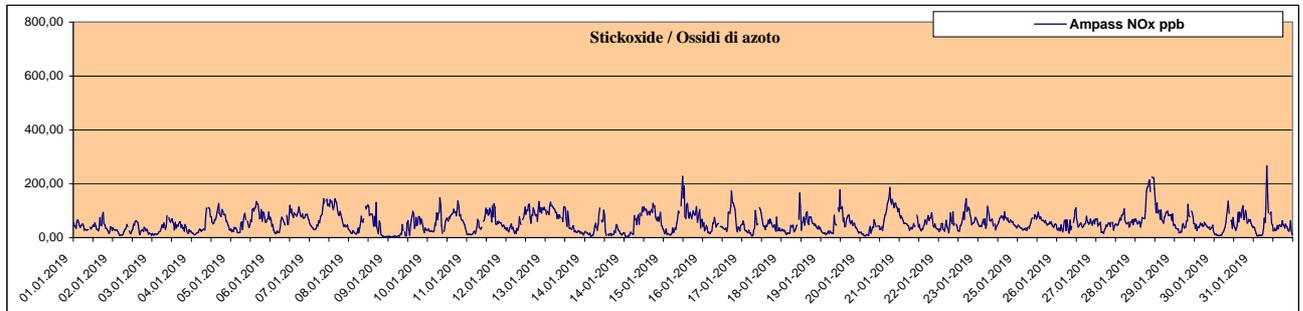
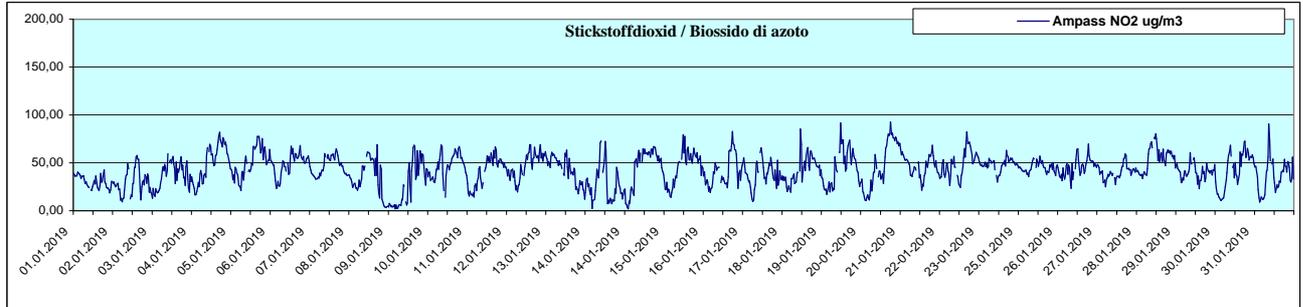
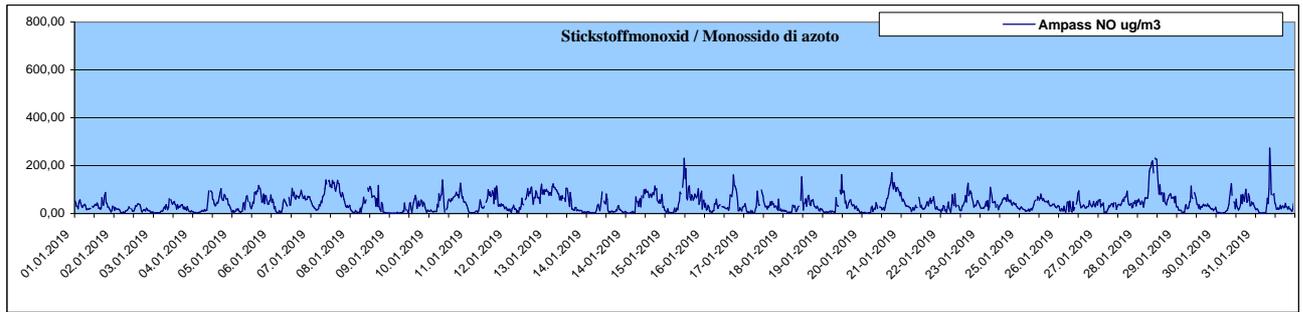
Feinstaub PM10				Polveri sottili (diametro <10µm)				
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	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	128,93	15,81	37,82	50,75	0		0	
Innsbruck Sillhöfe	96,28	23,26	35,94	66,98	0		0	
Steinach Siegreith	78,70	10,70	22,76	62,63	0		0	
Steinach Saxen	154,46	9,46	33,91	48,86	0		0	
Ampass	107,56	17,60	40,03	57,44	0		0	
Tulfes	138,62	12,40	42,44	47,76	0		0	

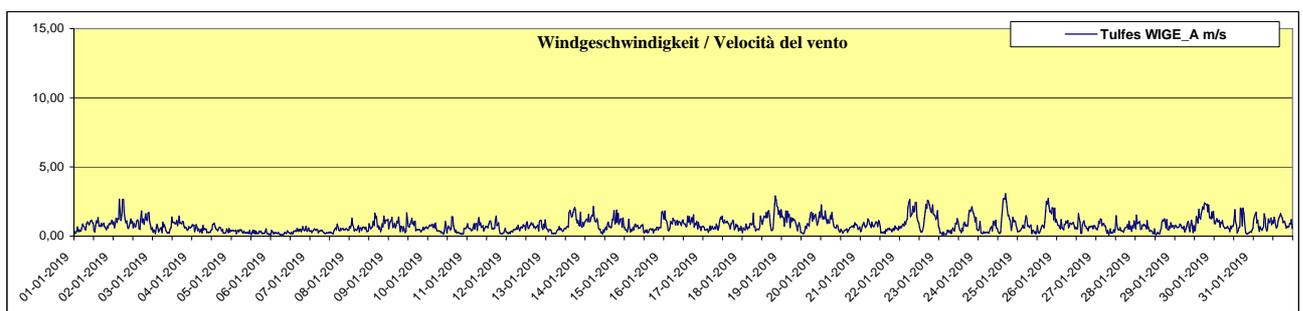
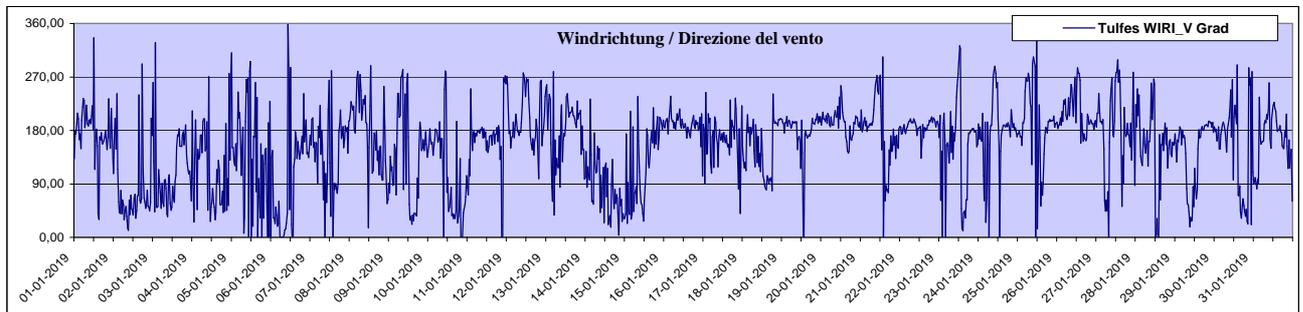
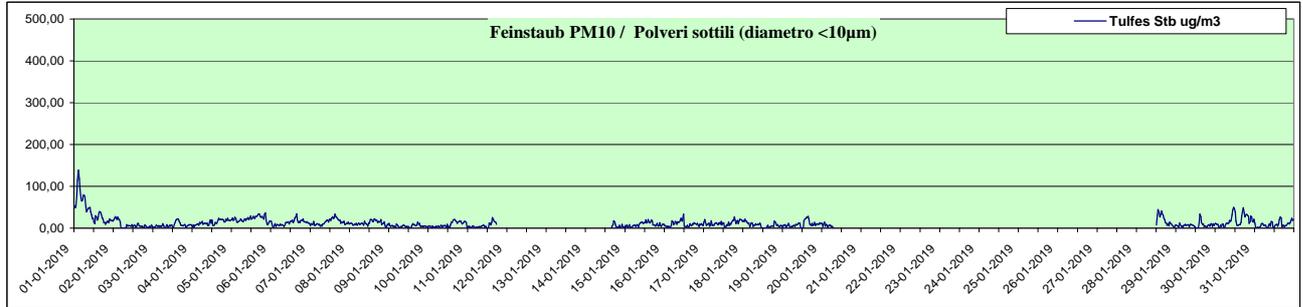
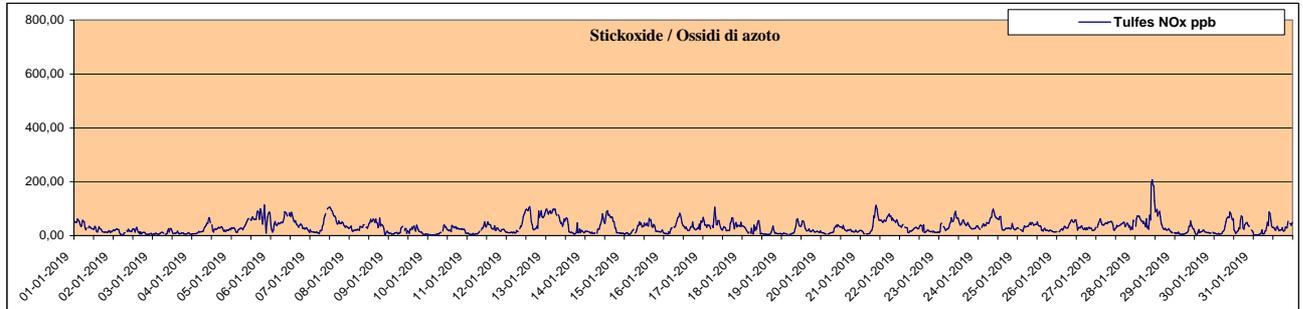
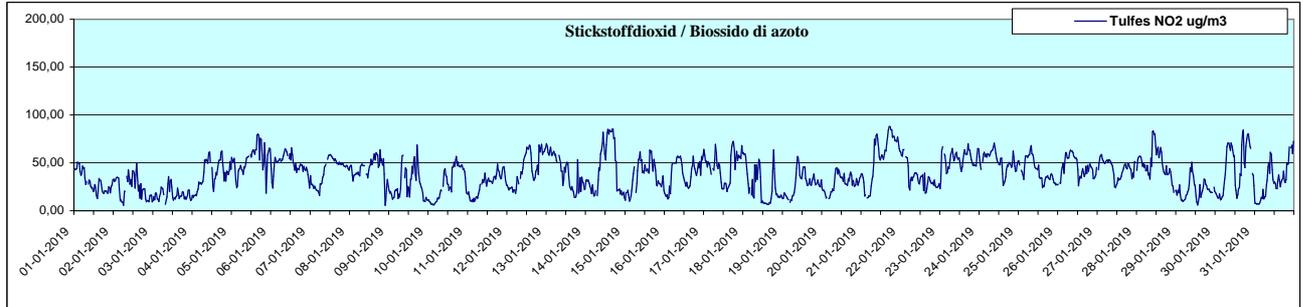
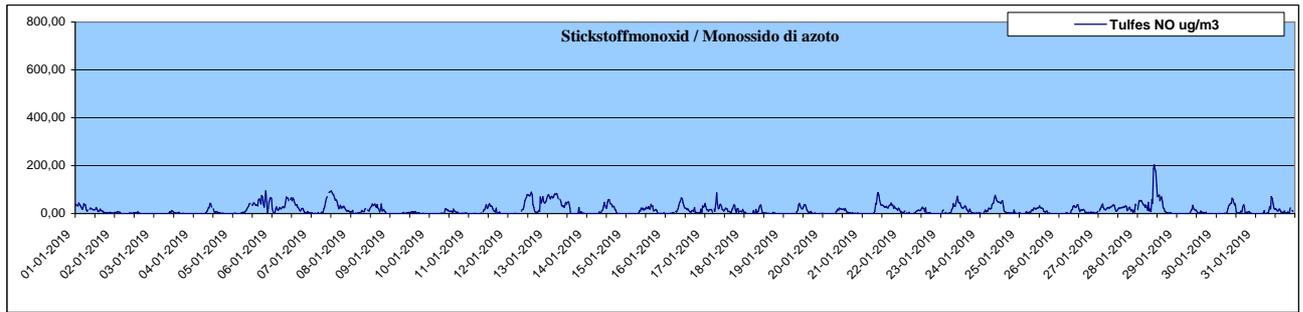




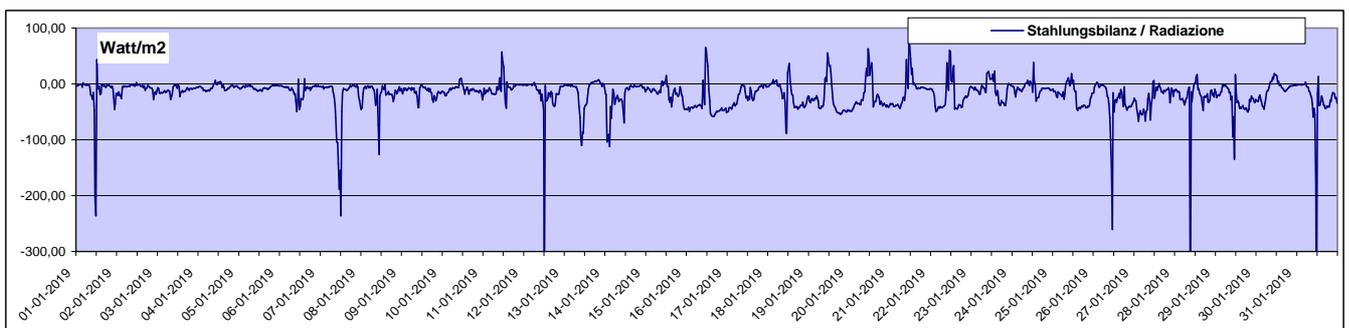
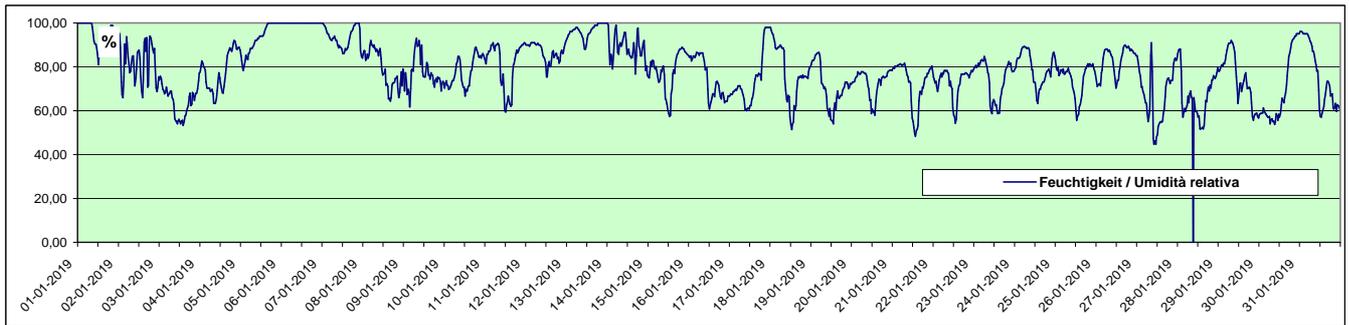
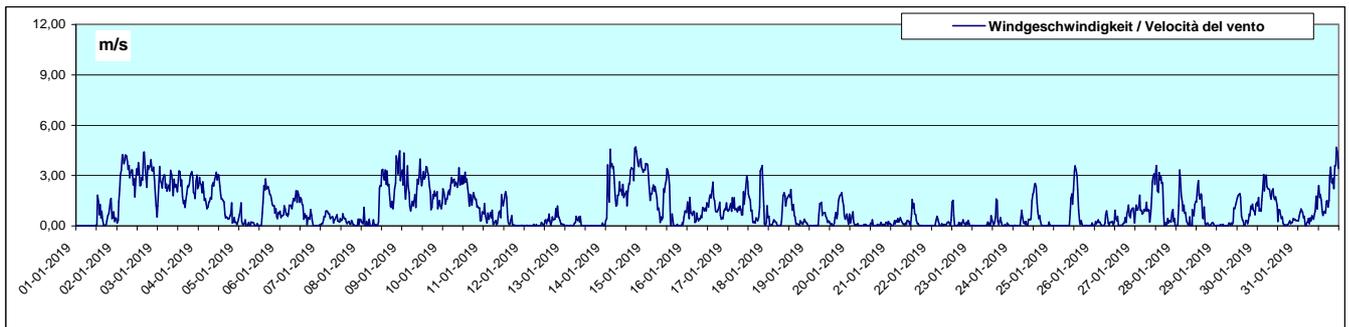
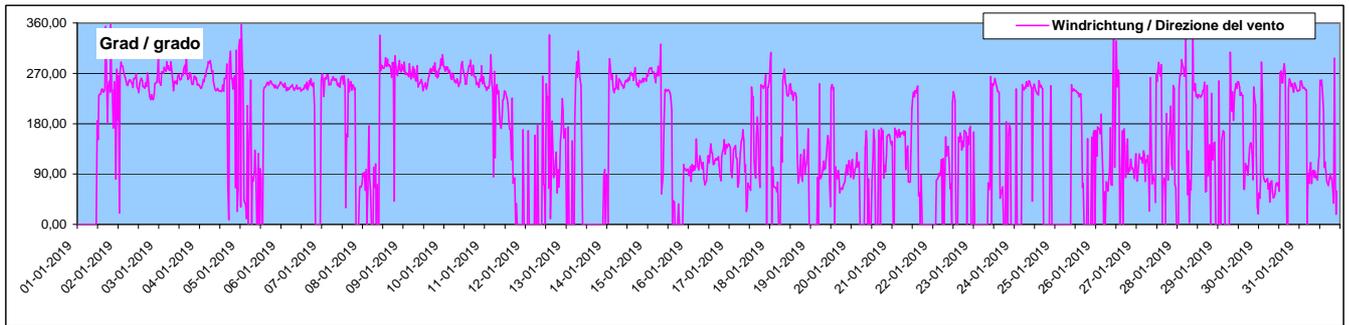








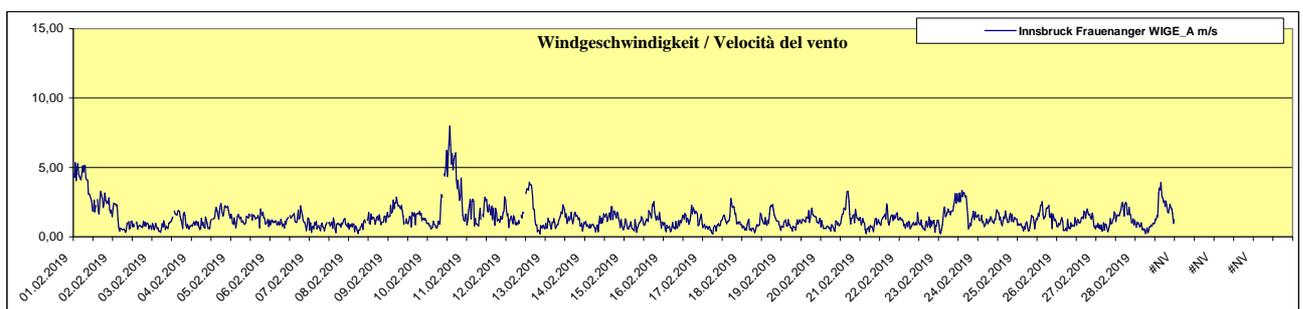
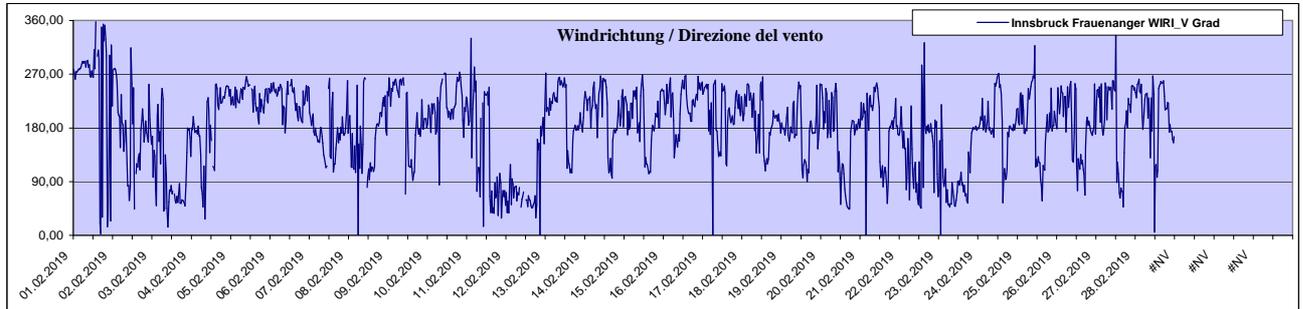
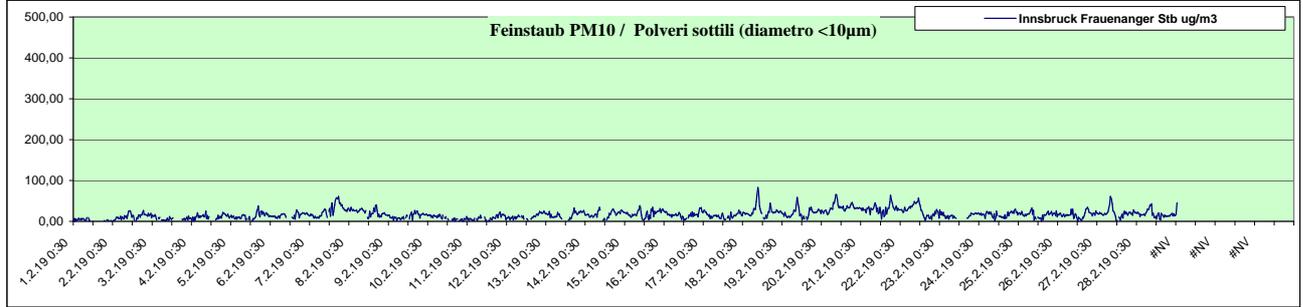
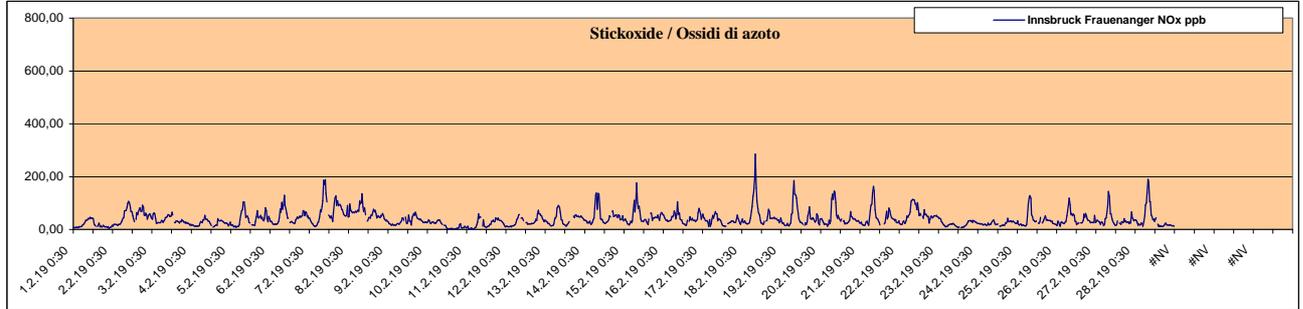
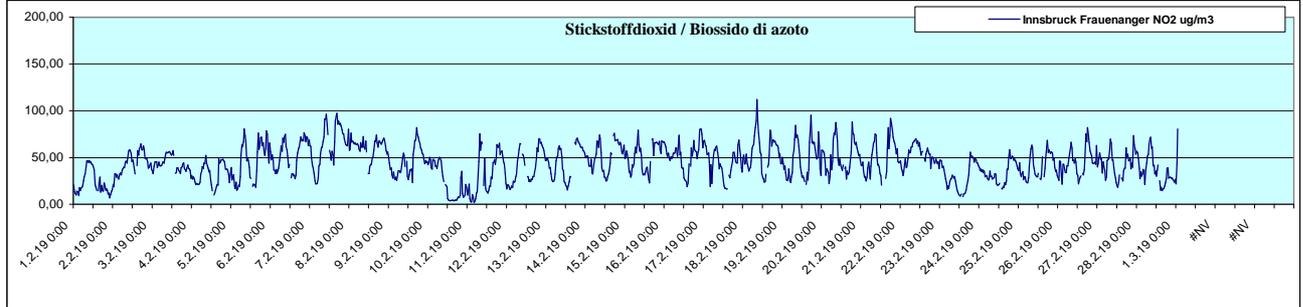
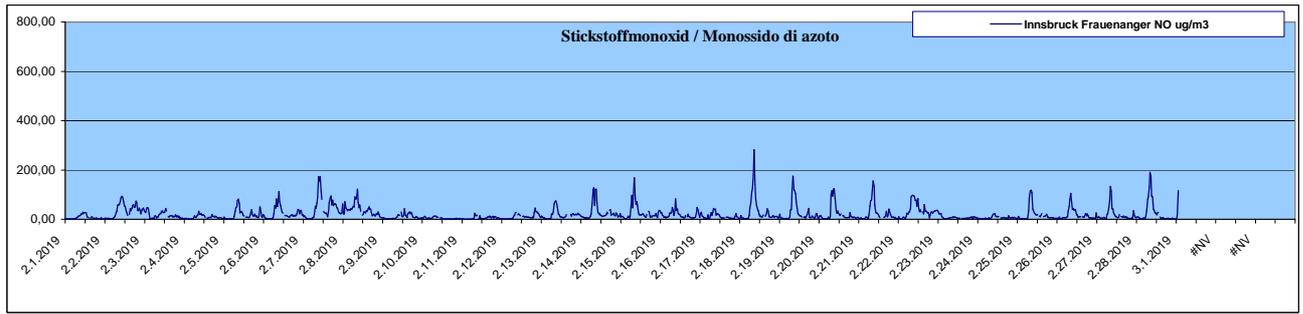
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Jänner 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal gennaio 2019

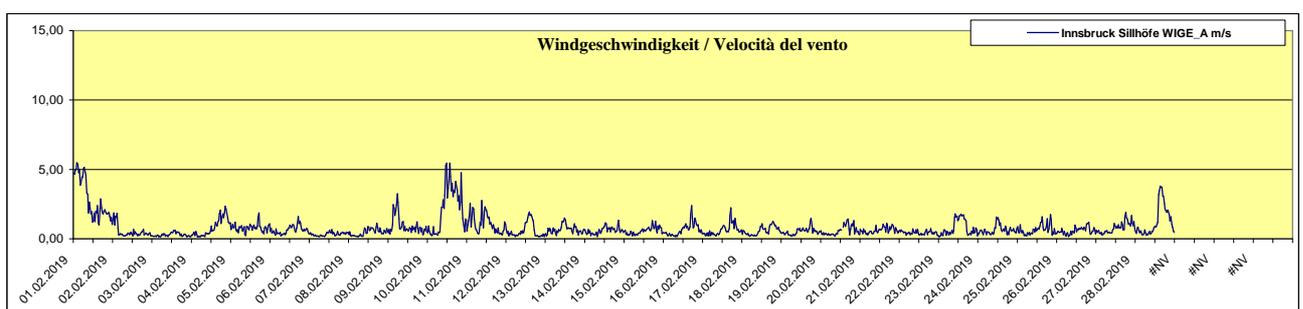
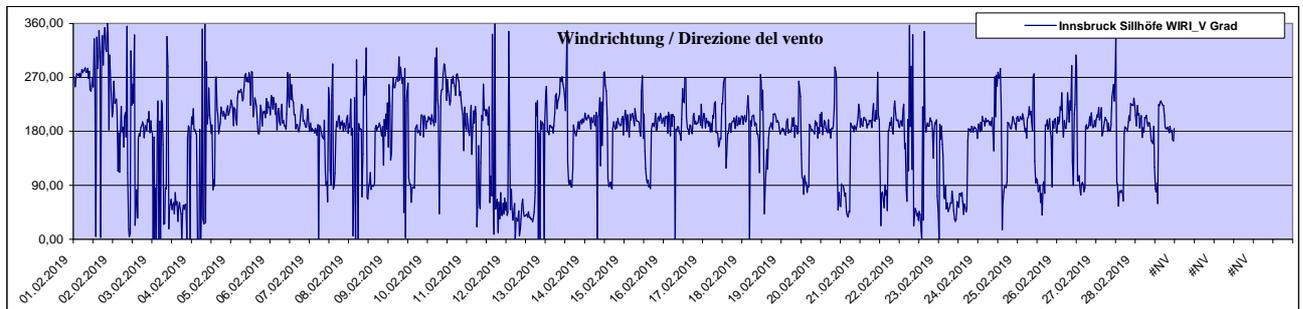
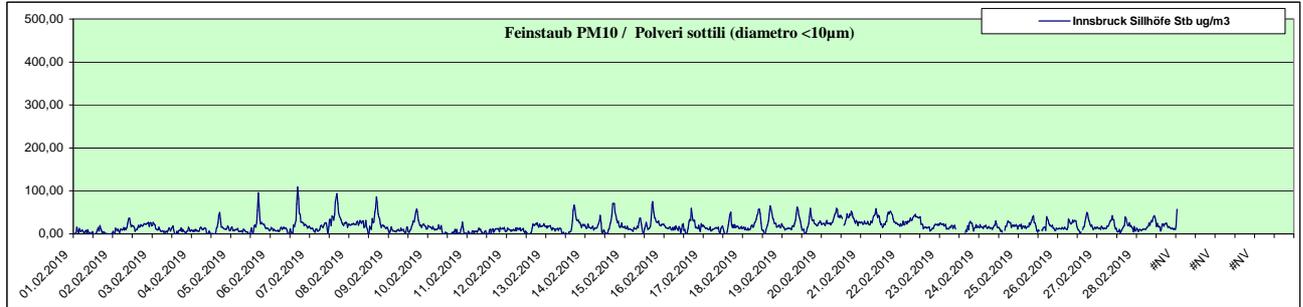
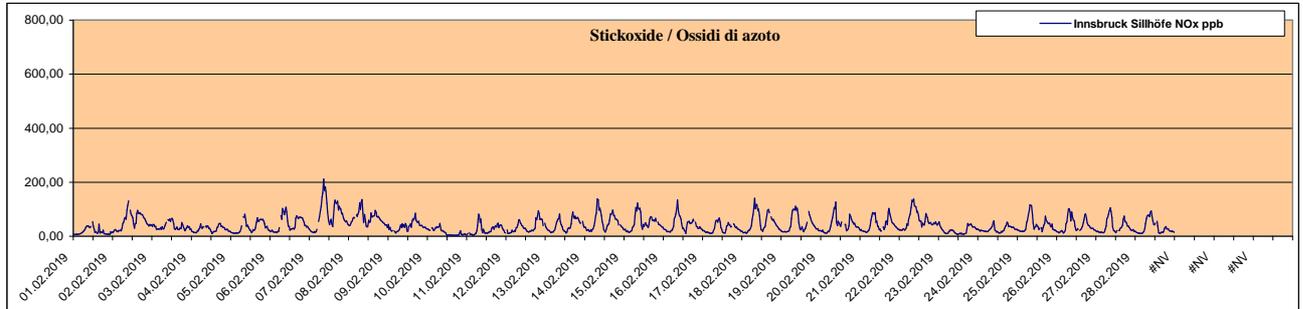
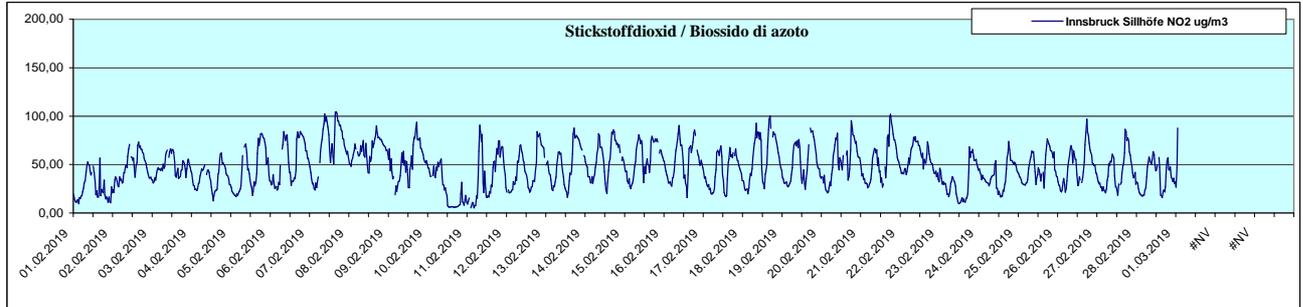
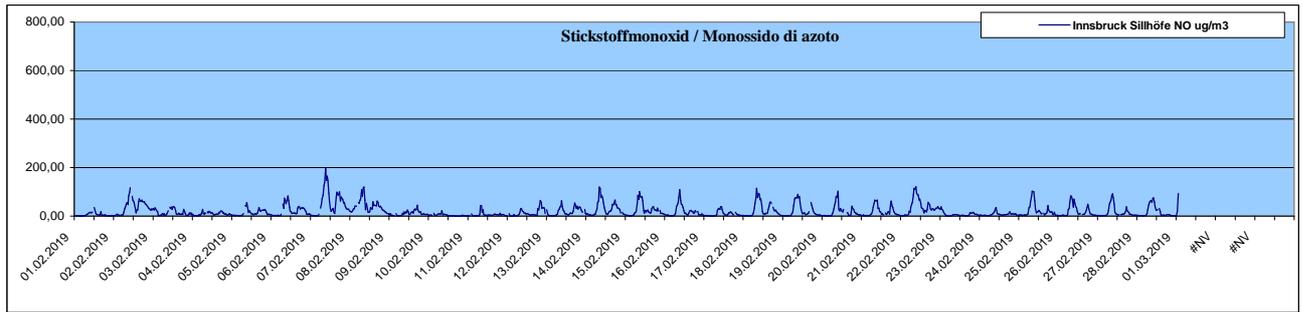


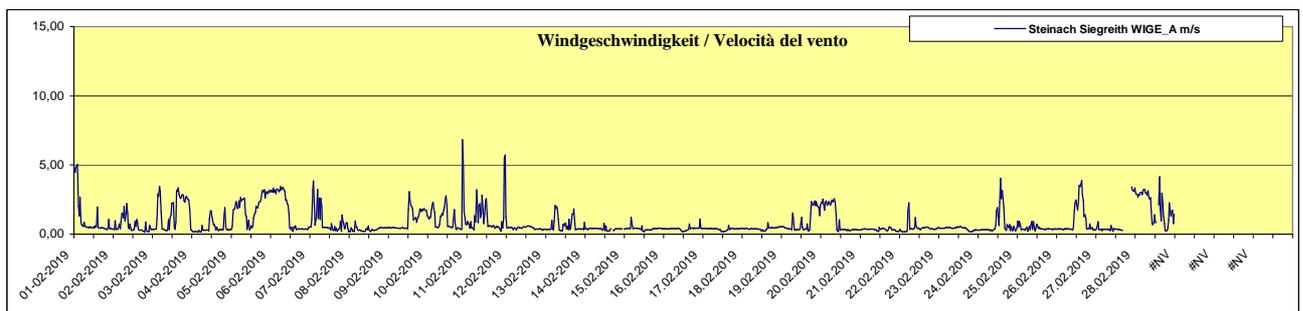
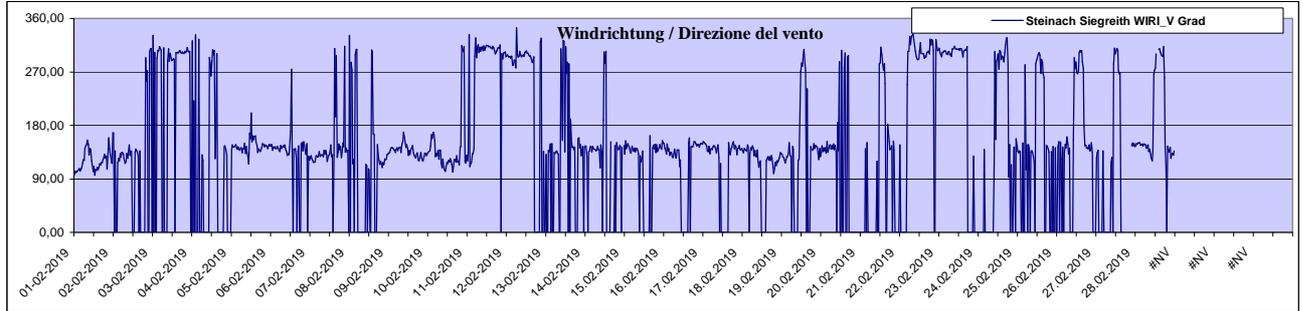
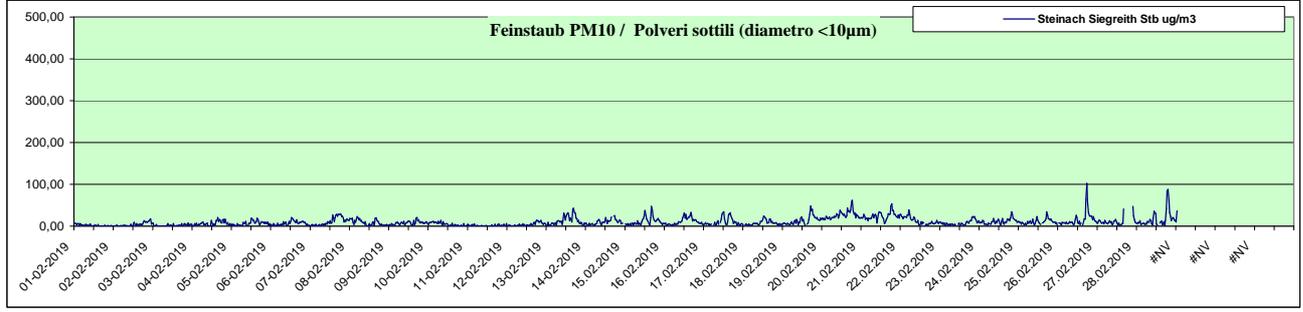
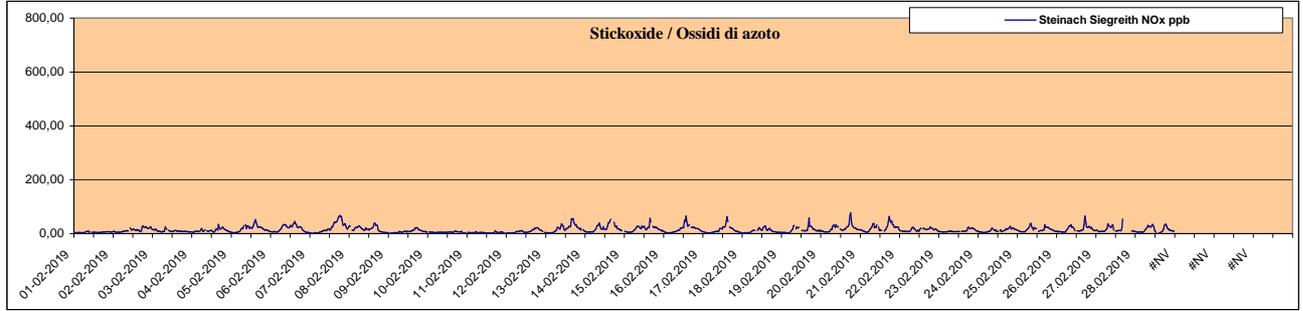
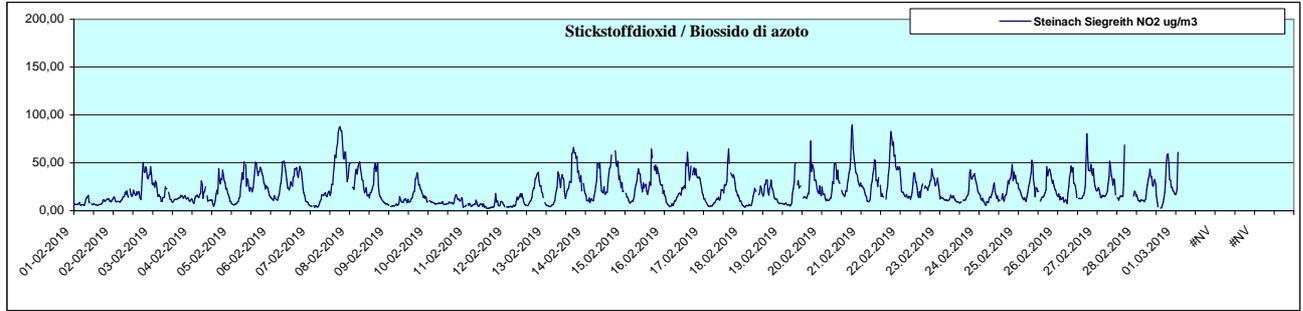
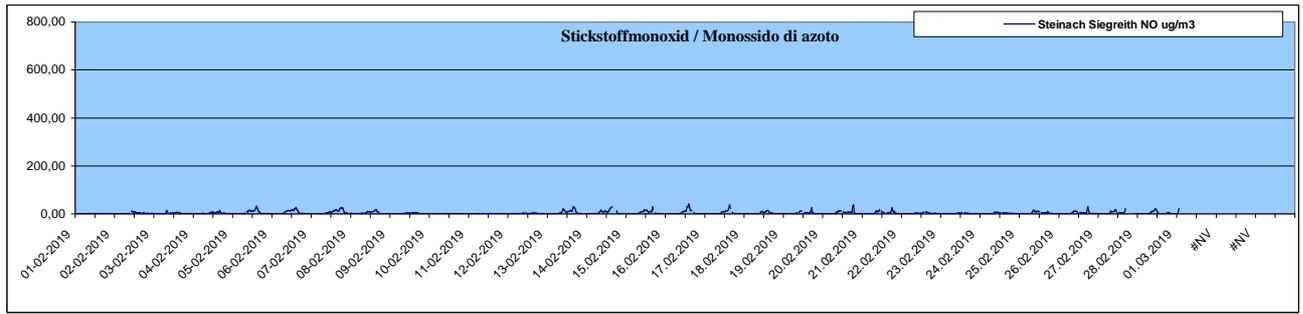
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	282,52	20,46	45,17	116,01	1		0	
Innsbruck Sillhöfe	198,25	19,61	54,26	93,19	0		0	
Steinach Siegreith	41,74	3,62	6,85	22,59	0		0	
Steinach Saxen	122,57	11,45	21,25	66,45	0		0	
Ampass	268,73	25,56	64,75	102,26	3		0	
Tulfes	113,12	9,72	19,74	58,31	0		0	

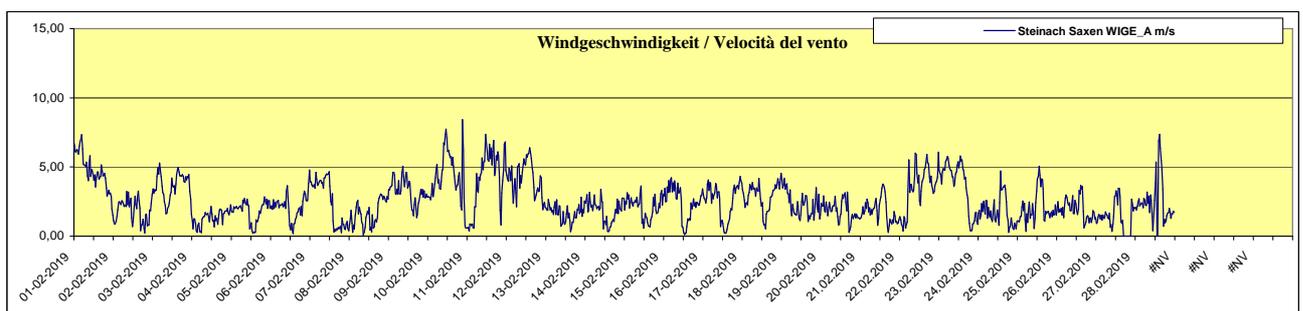
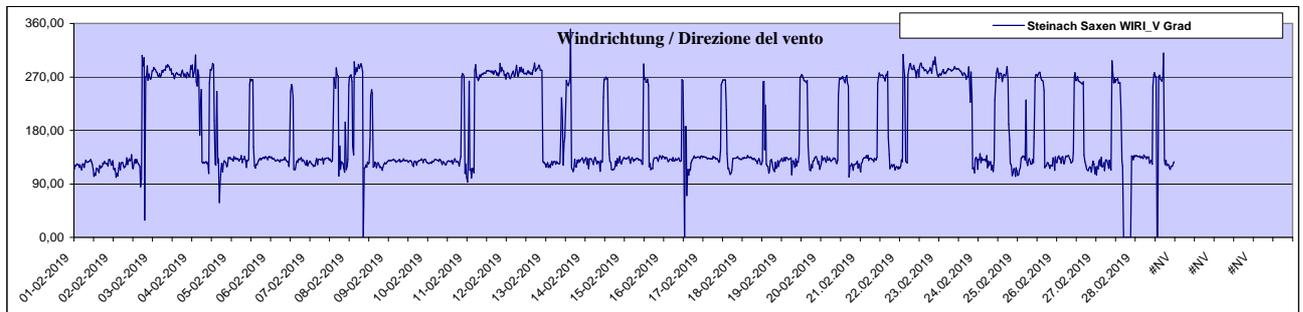
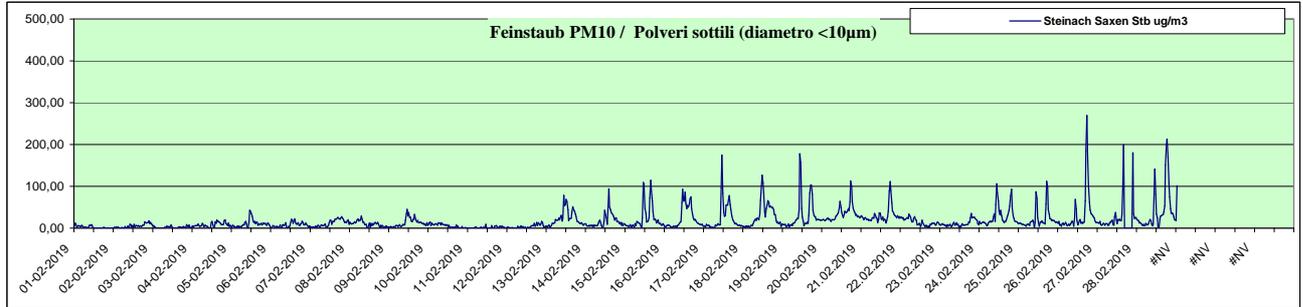
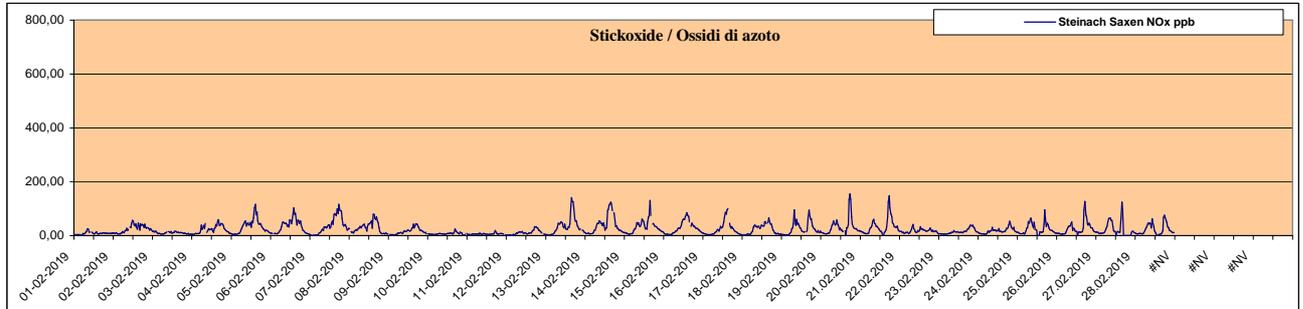
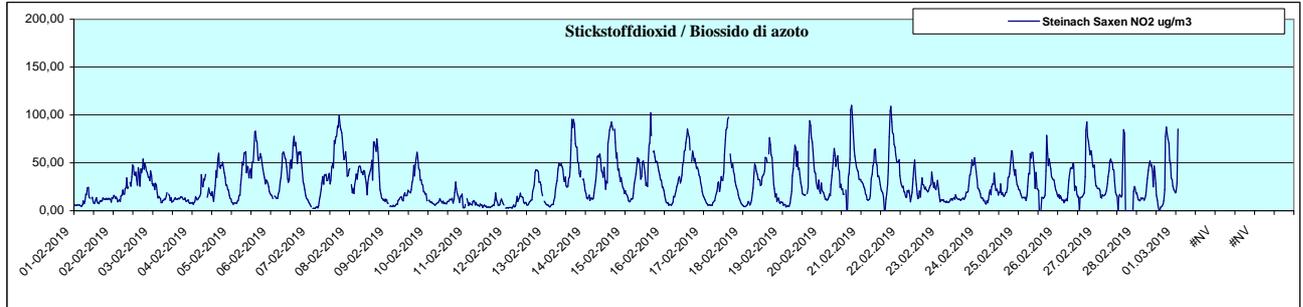
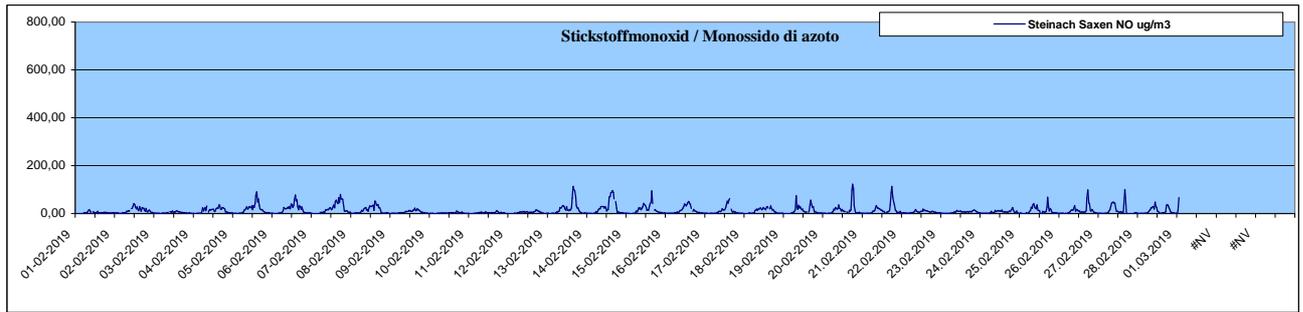
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	111,80	44,08	62,98	80,61	1		0	
Innsbruck Sillhöfe	104,49	47,22	67,91	87,68	6		0	
Steinach Siegreith	89,62	21,60	34,59	60,96	0		0	
Steinach Saxen	110,01	28,51	41,62	85,31	6		0	
Ampass	92,29	30,54	49,93	58,06	0		0	
Tulfes	67,32	29,55	44,46	63,63	0		0	

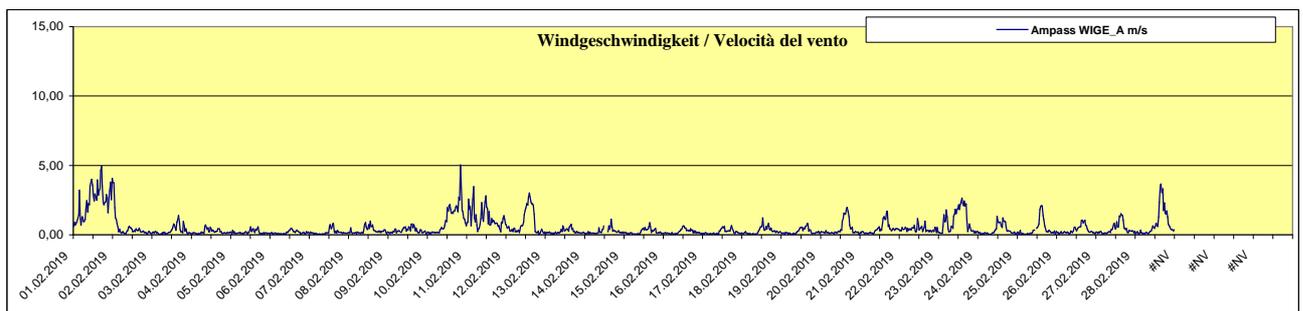
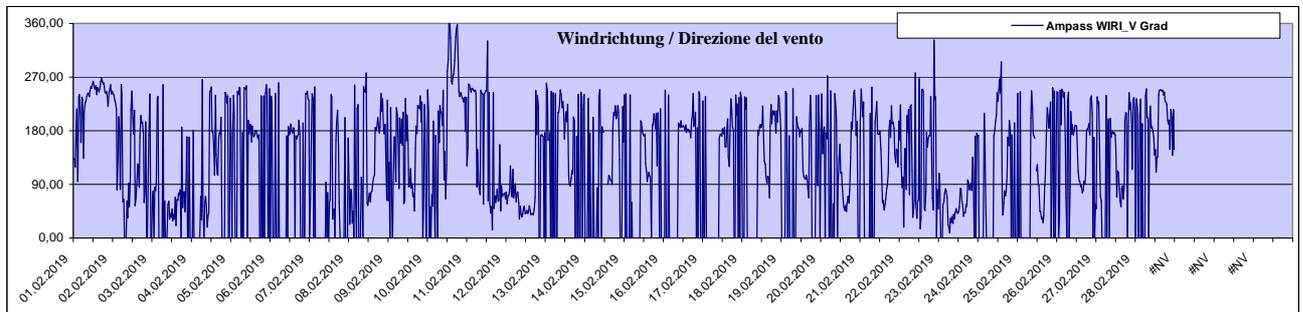
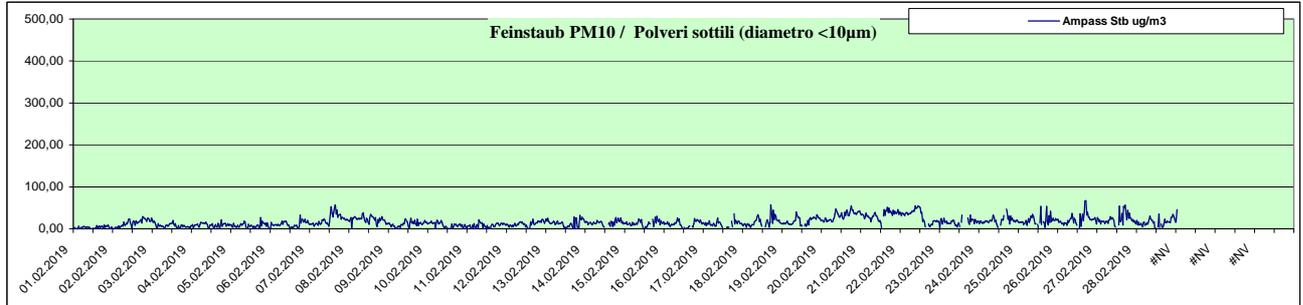
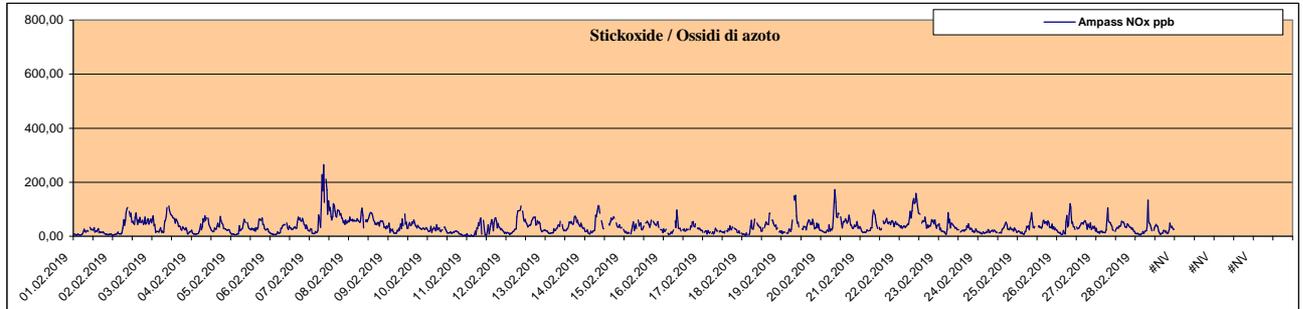
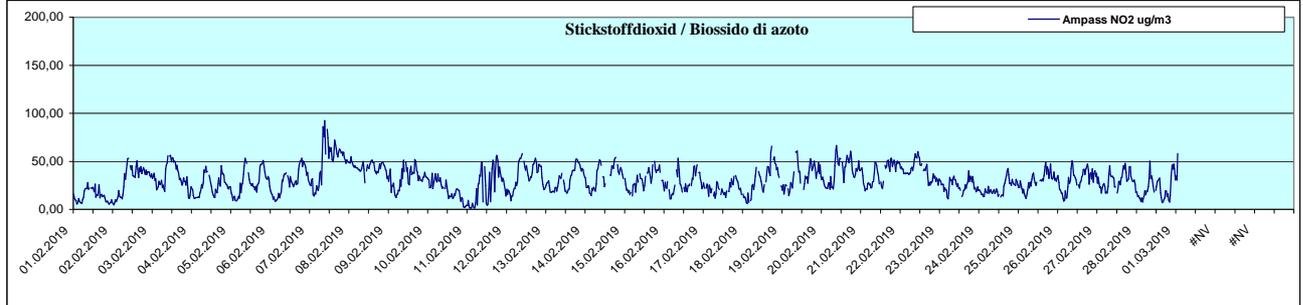
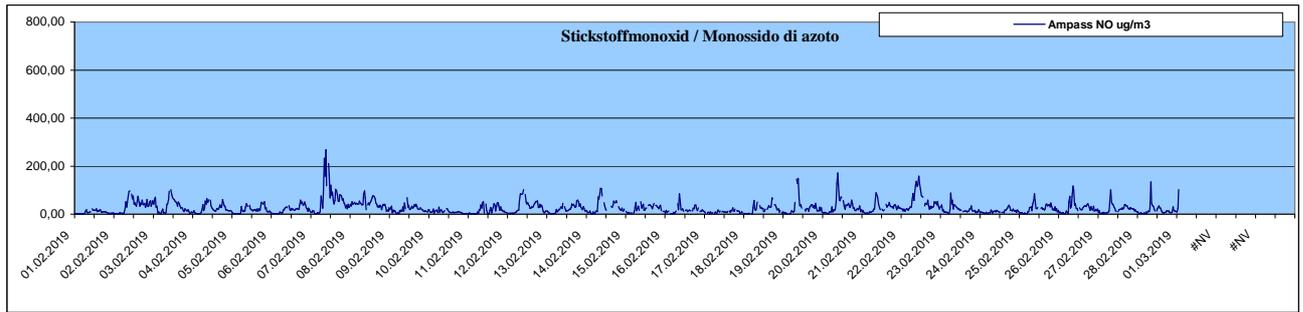
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	83,00	17,28	34,06	45,60	0		0	
Innsbruck Sillhöfe	109,11	17,92	33,39	57,34	0		0	
Steinach Siegreith	102,20	9,97	26,50	36,44	0		0	
Steinach Saxen	269,70	17,73	43,11	101,46	1		0	
Ampass	66,60	16,00	32,70	45,40	0		0	
Tulfes	193,33	8,43	24,67	31,07	0		0	

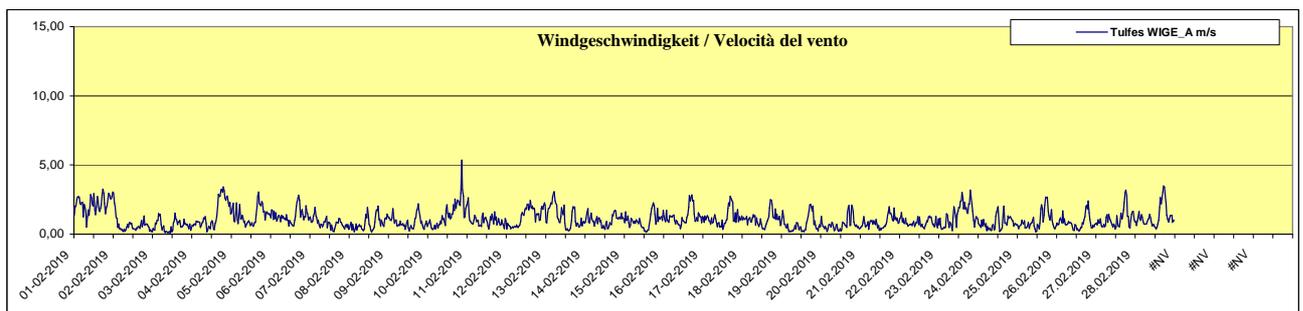
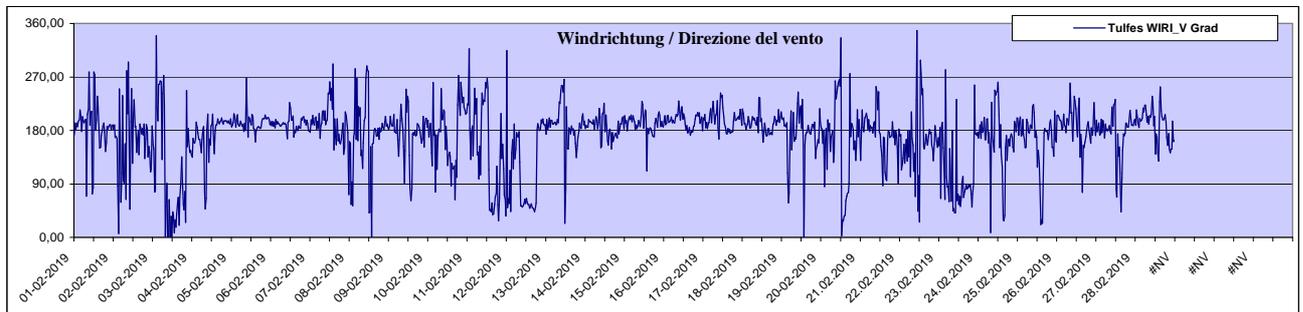
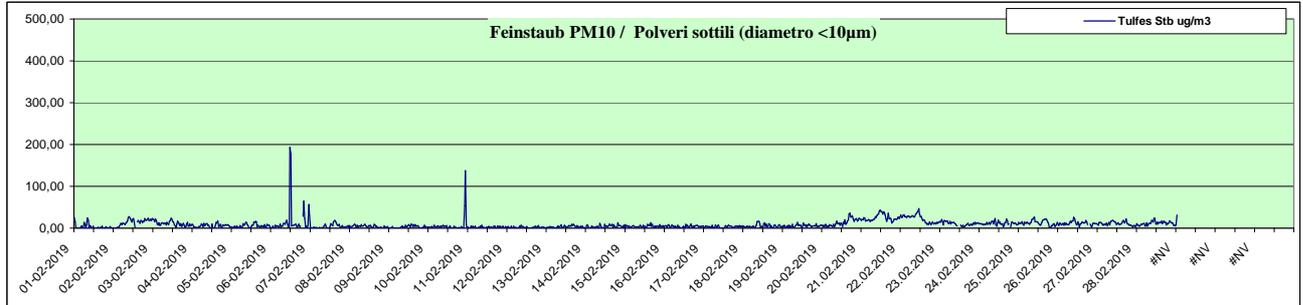
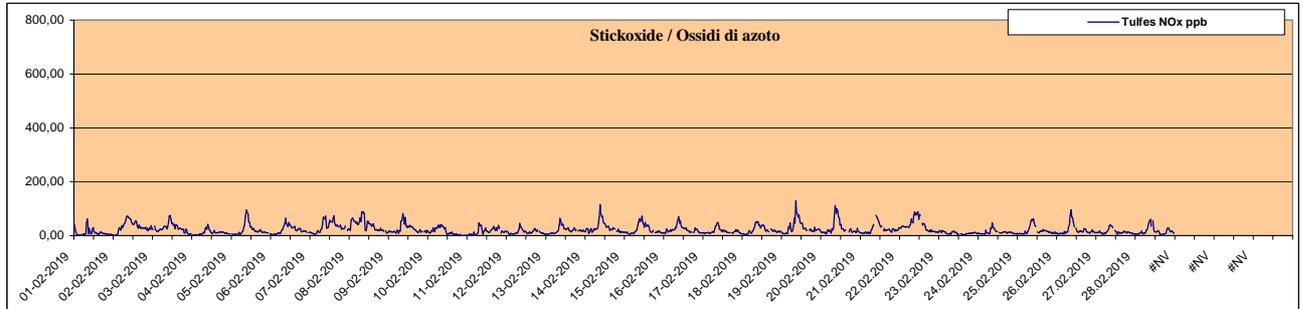
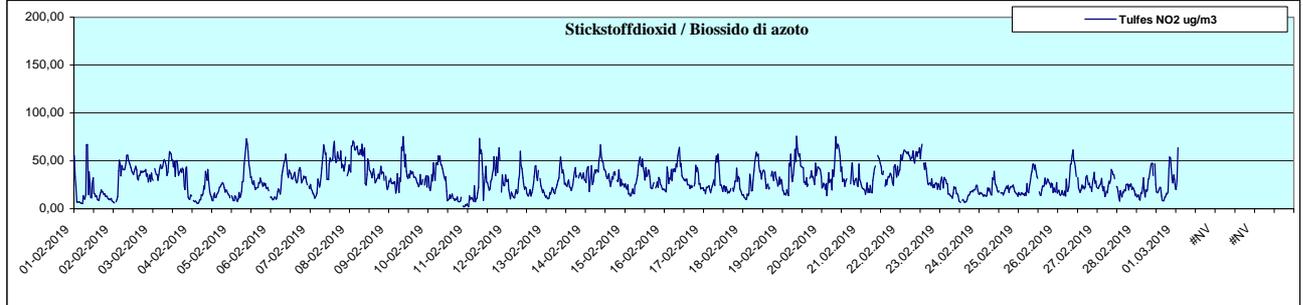
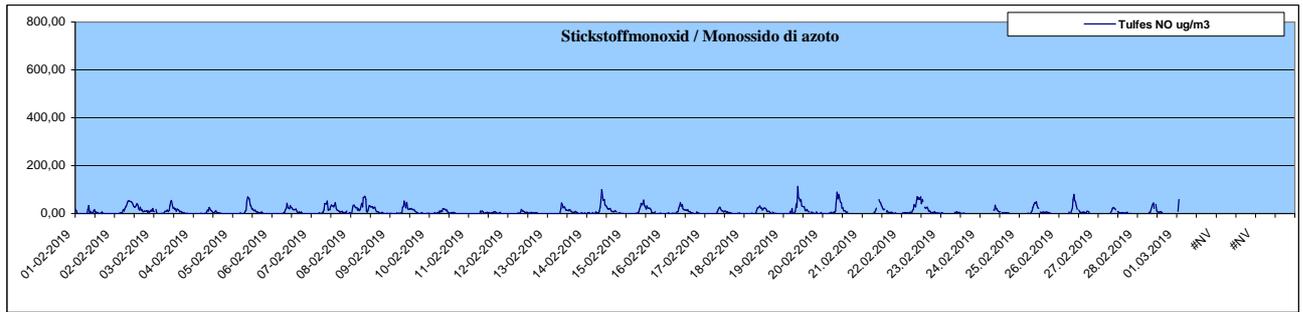




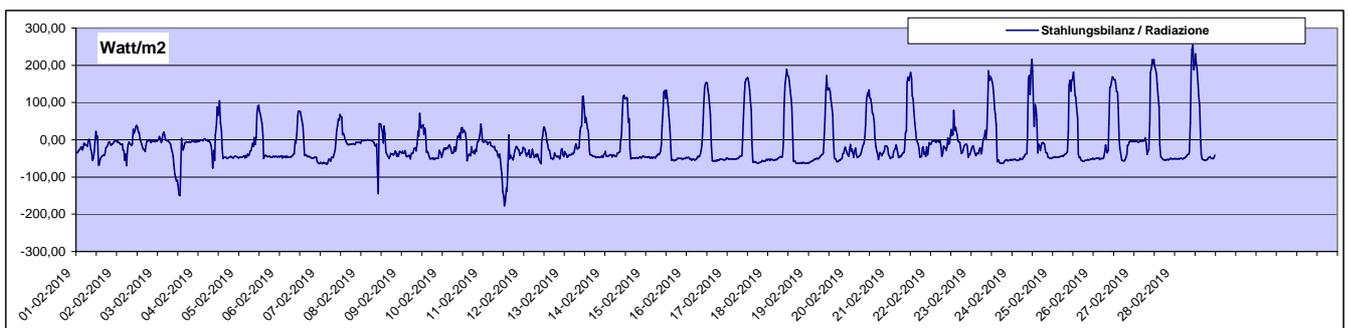
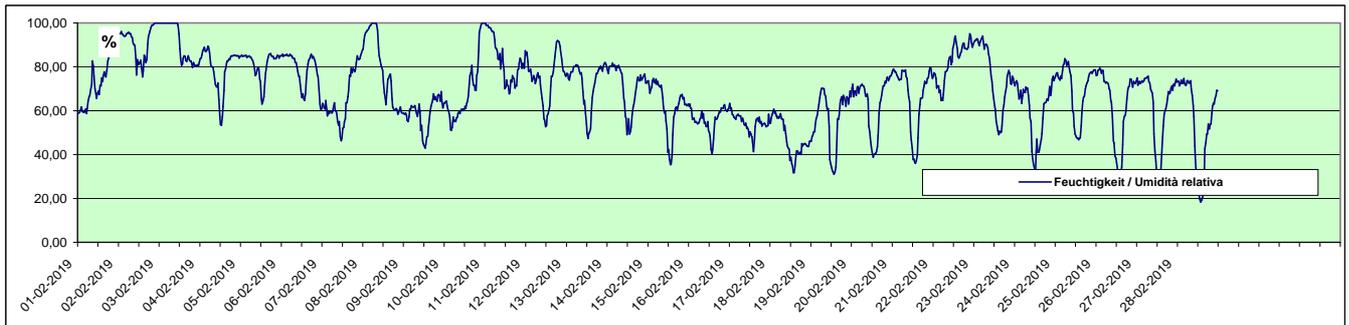
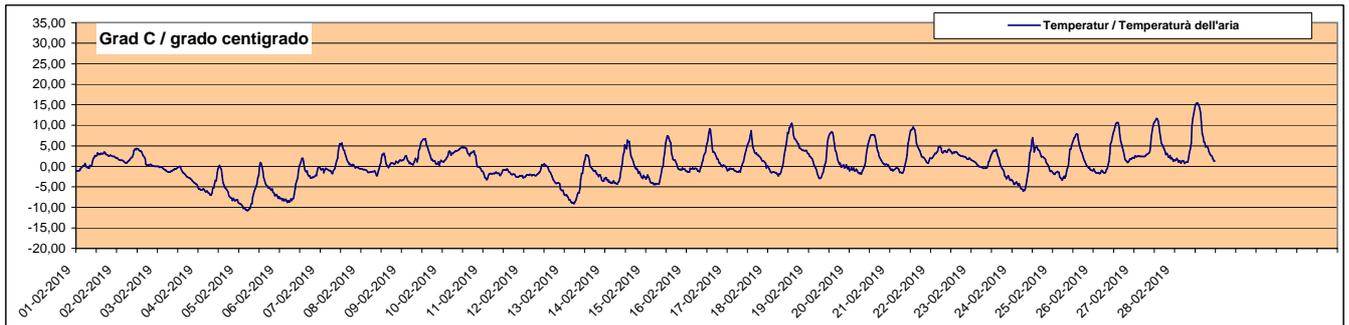
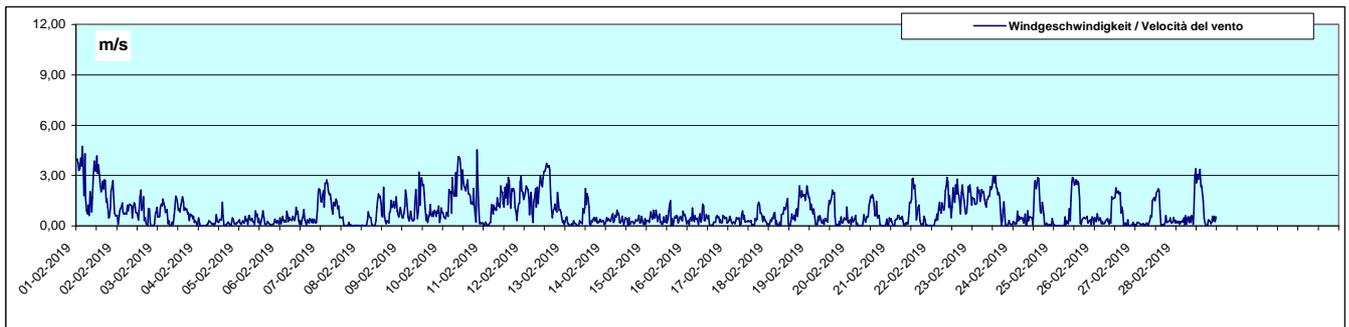
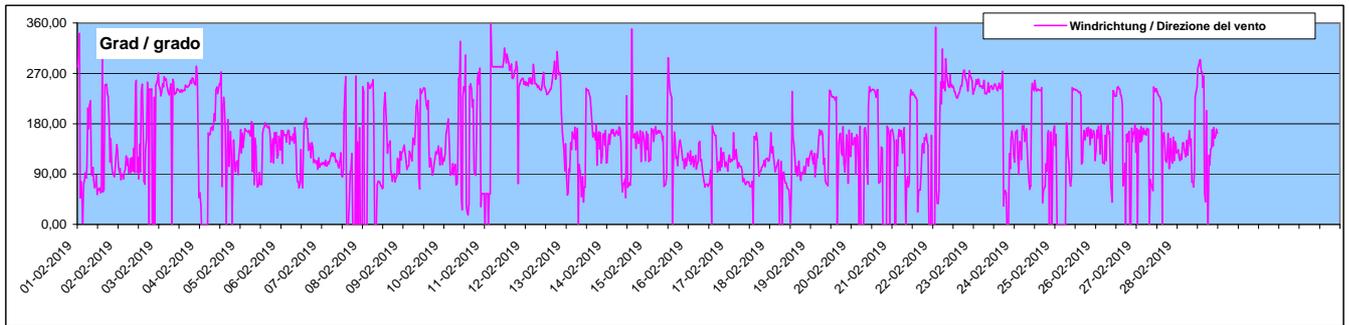








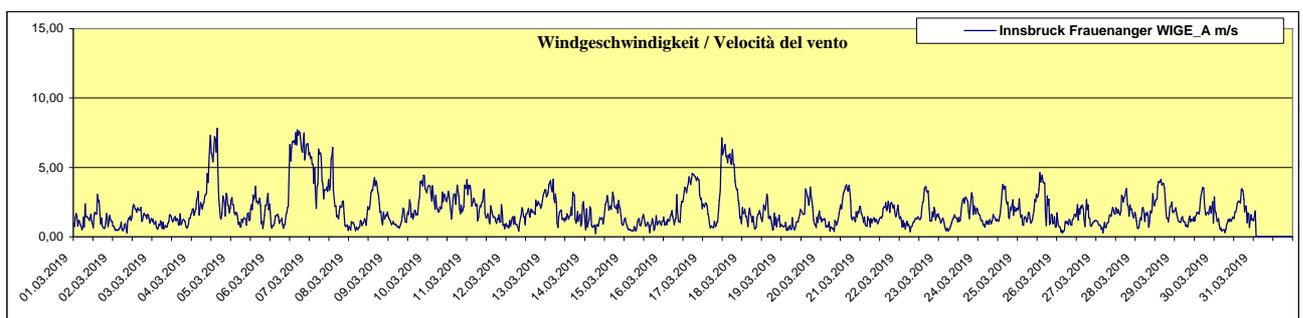
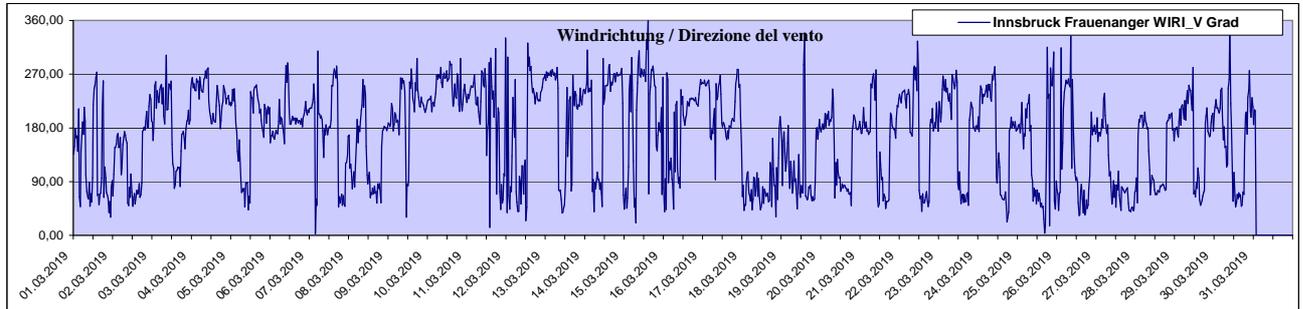
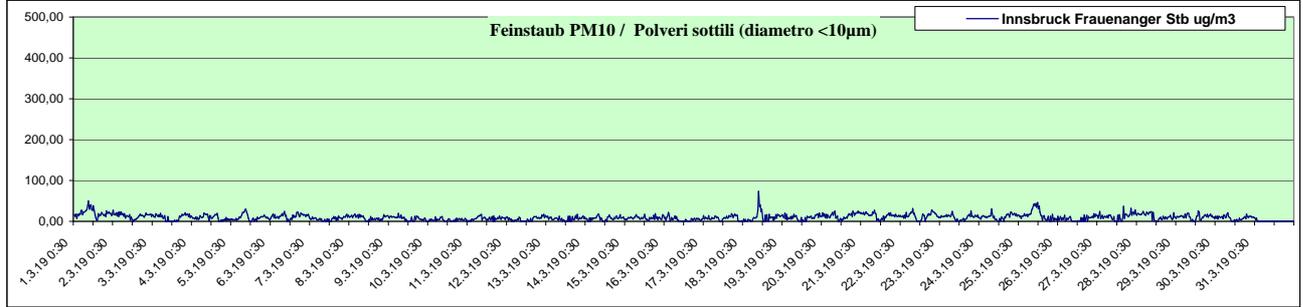
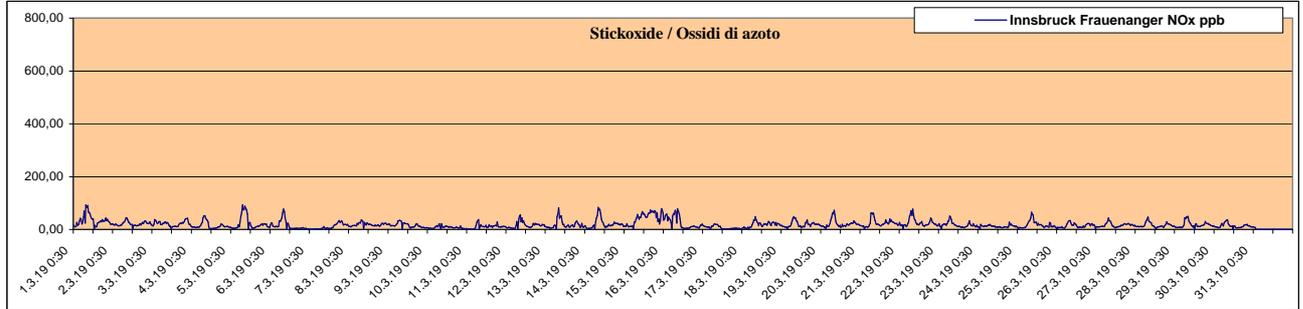
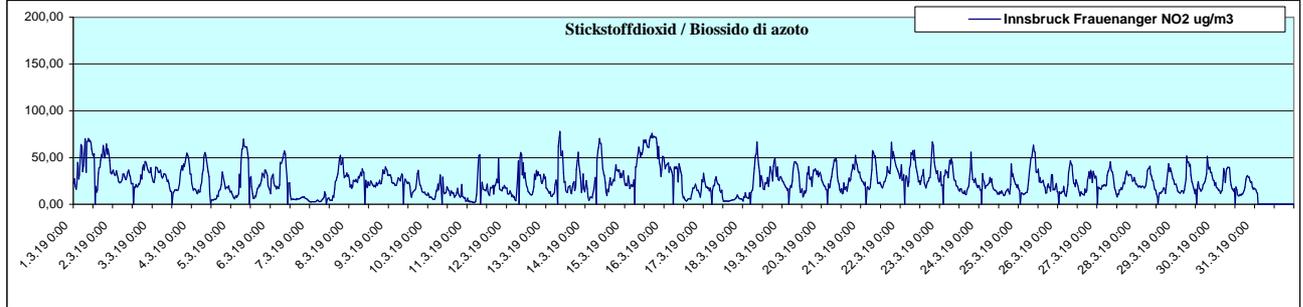
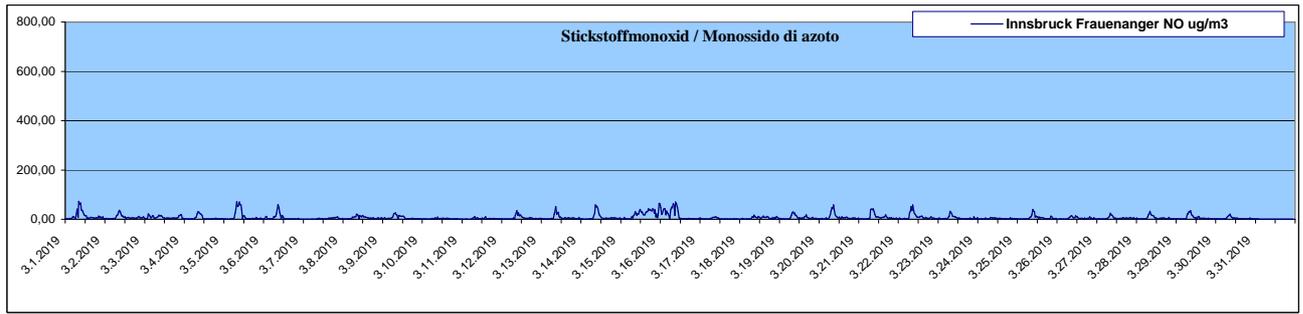
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Februar 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal febbraio 2019

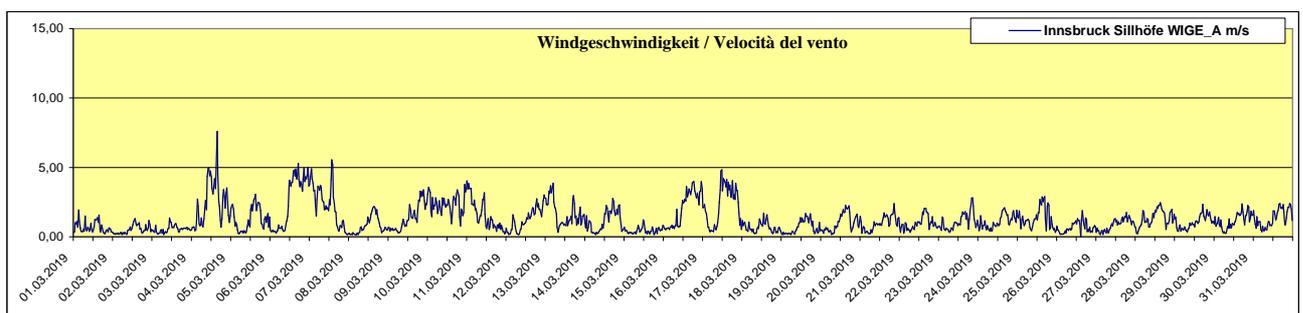
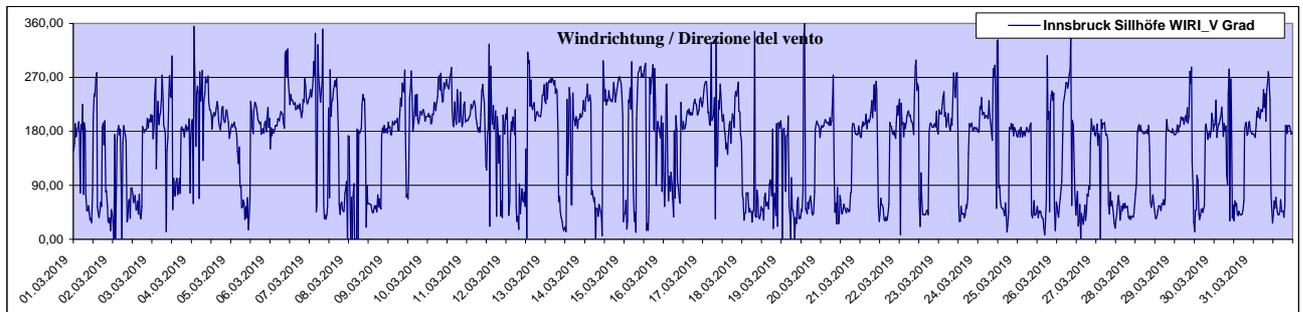
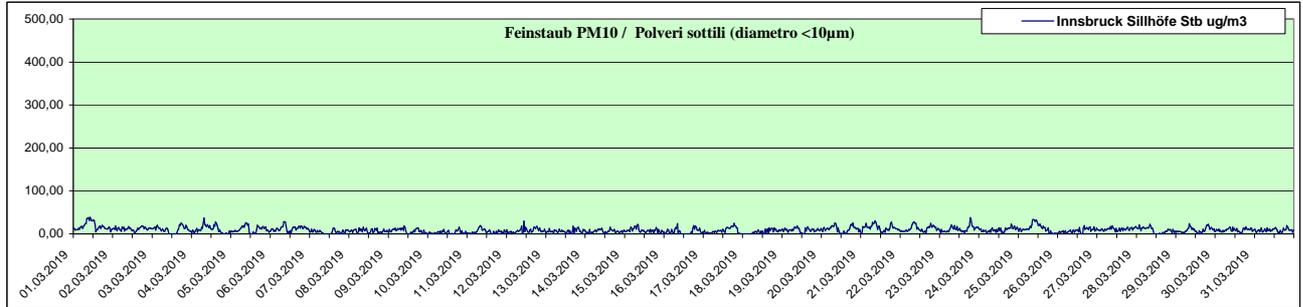
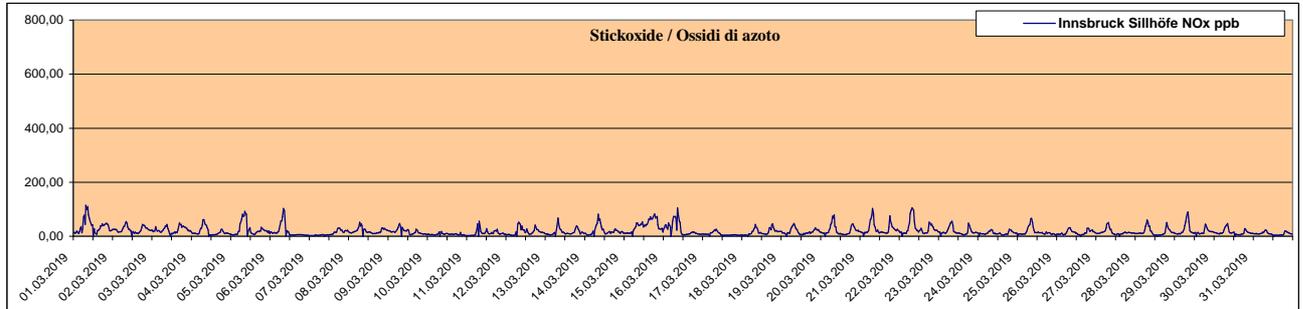
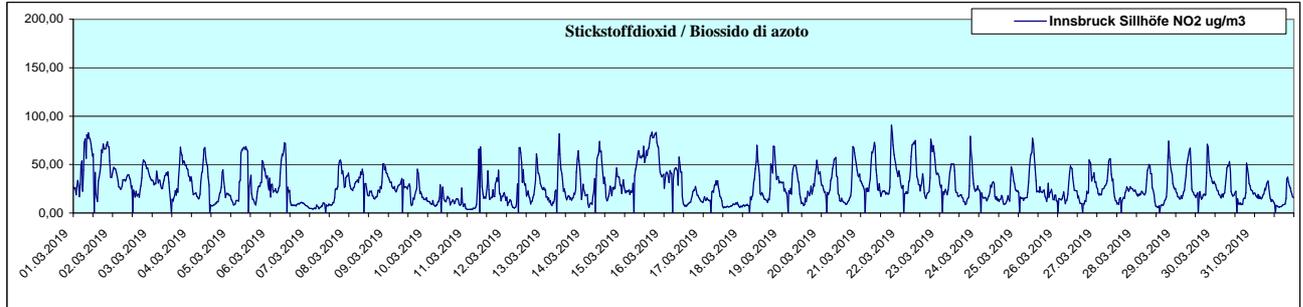
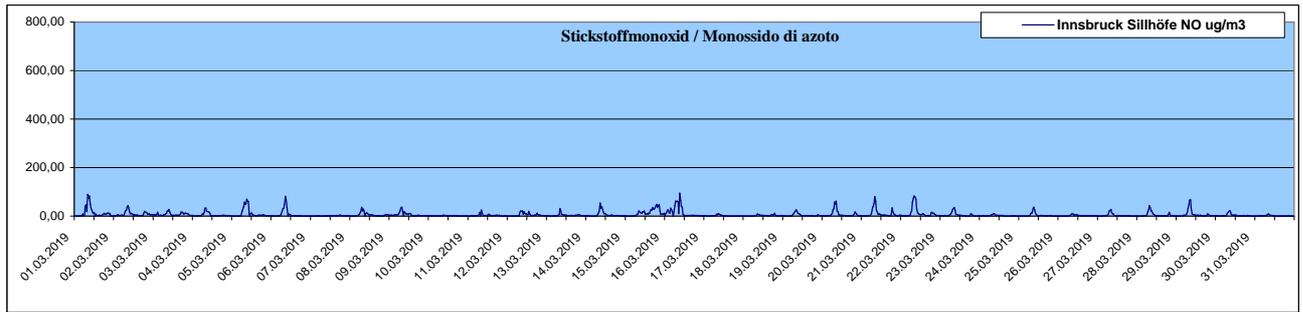


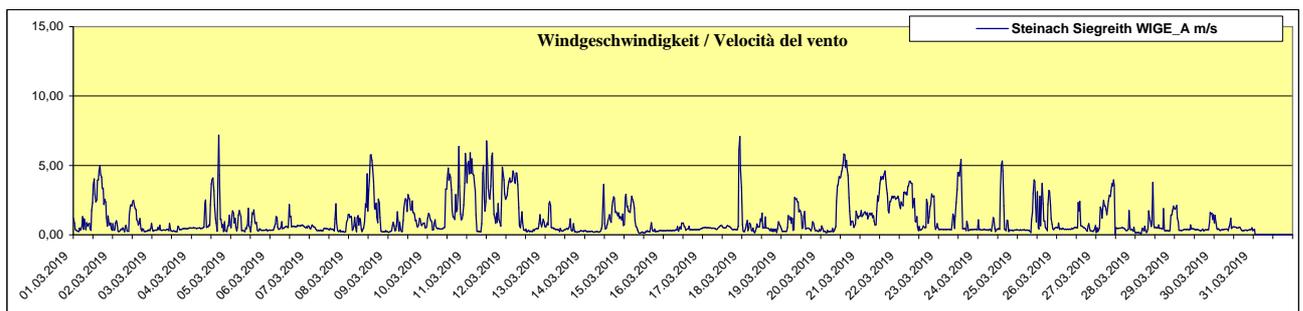
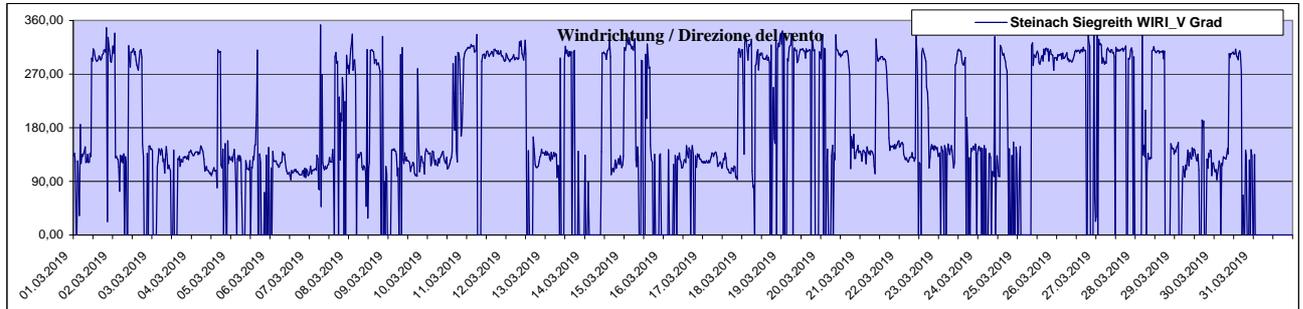
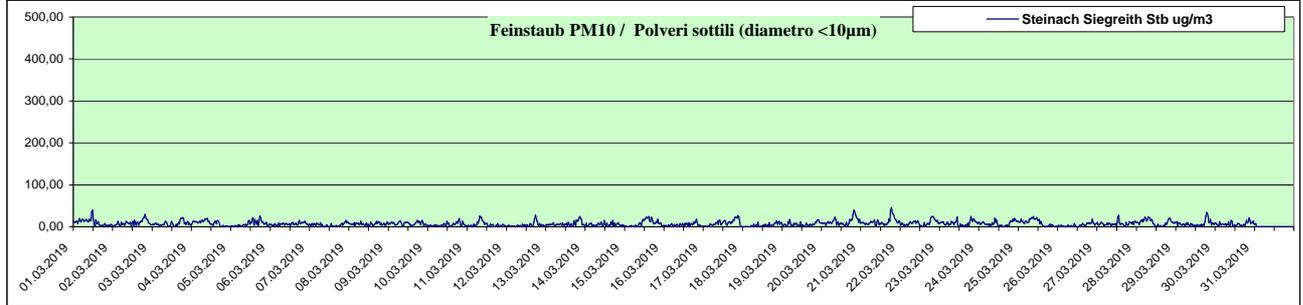
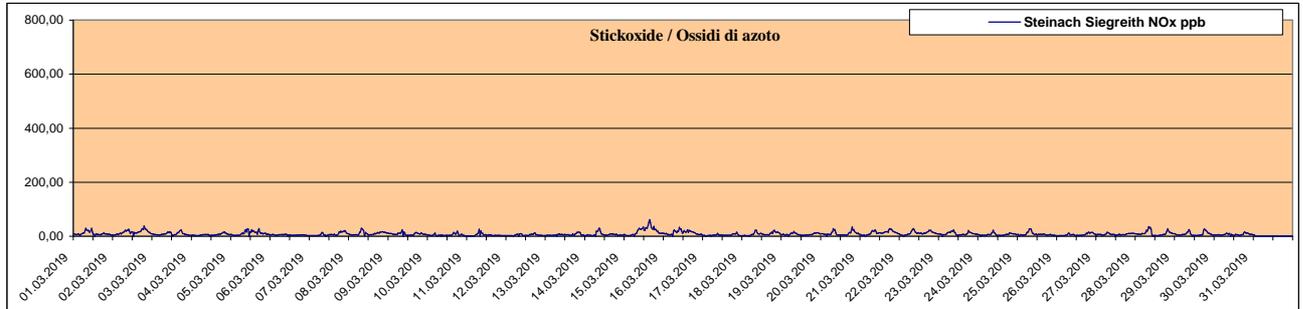
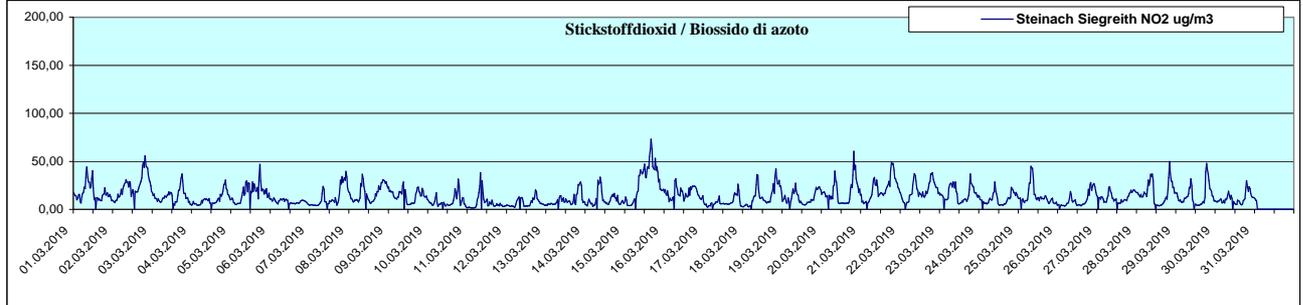
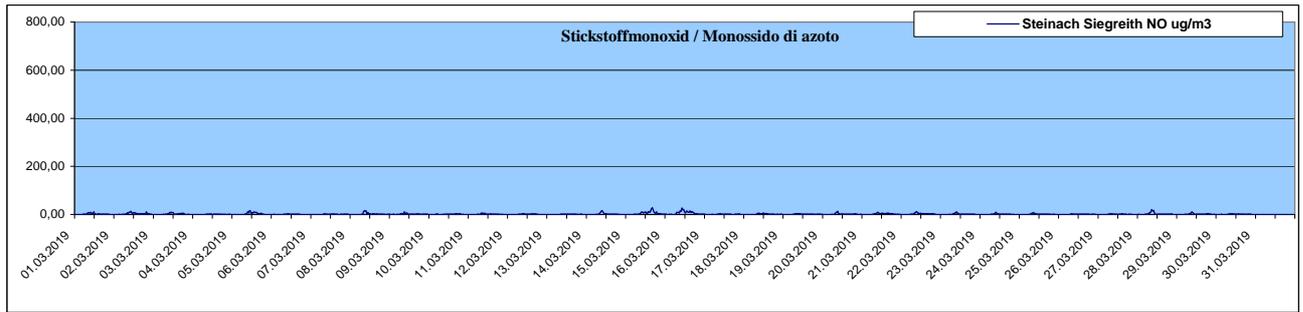
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	72,16	7,37	22,31	46,09	0		0	
Innsbruck Sillhöfe	94,27	6,24	16,81	49,16	0		0	
Steinach Siegreith	28,44	1,92	6,37	11,96	0		0	
Steinach Saxen	91,51	7,83	23,48	42,06	0		0	
Ampass	169,81	15,01	35,44	75,73	0		0	
Tulfes	151,11	3,76	15,67	36,75	0		0	

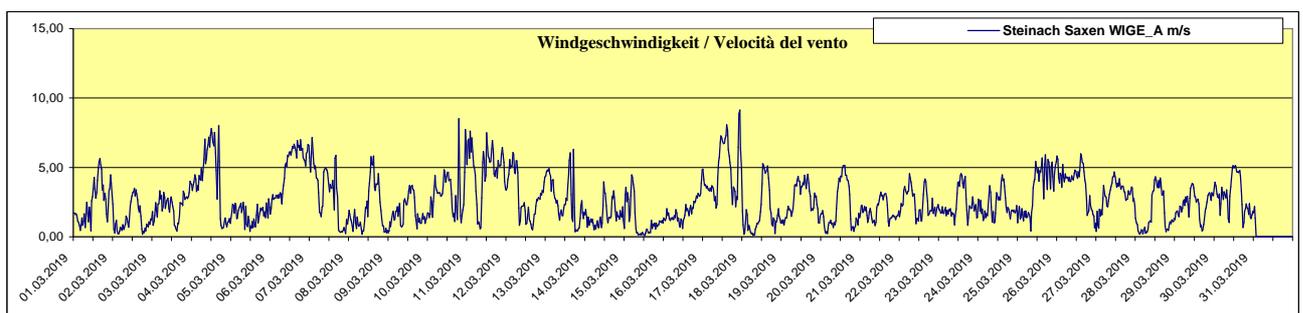
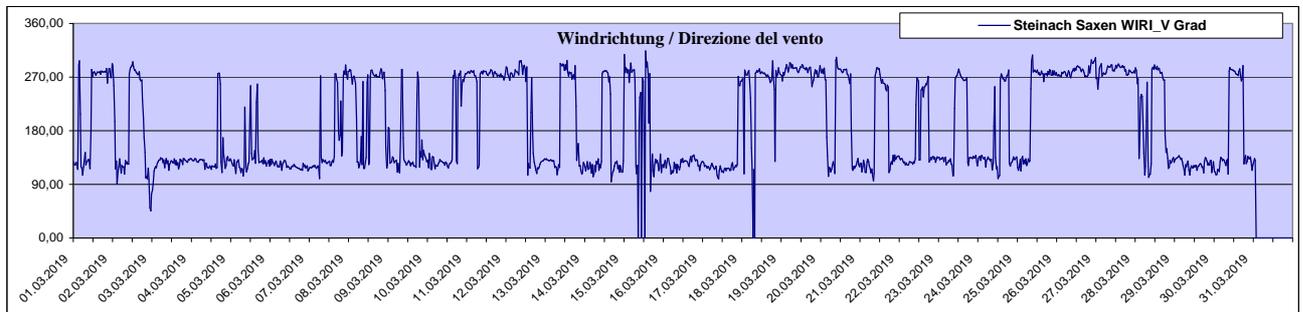
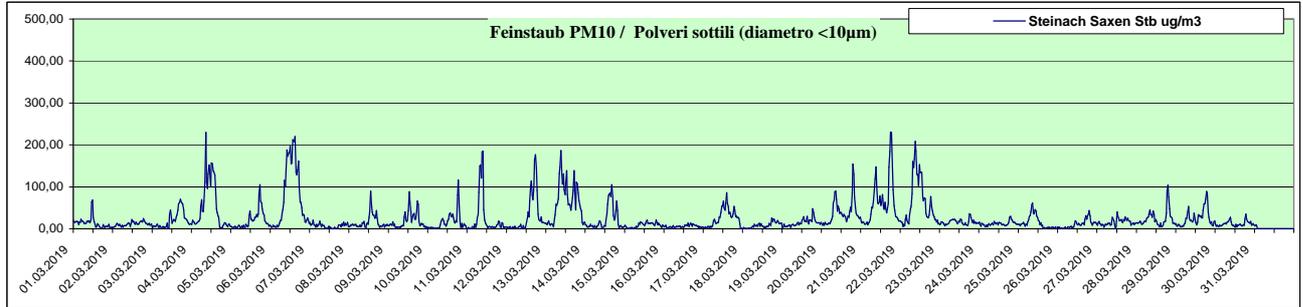
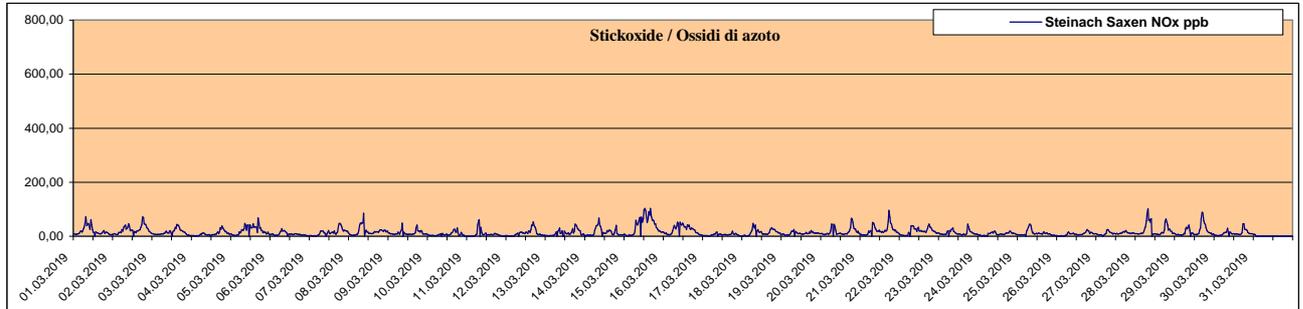
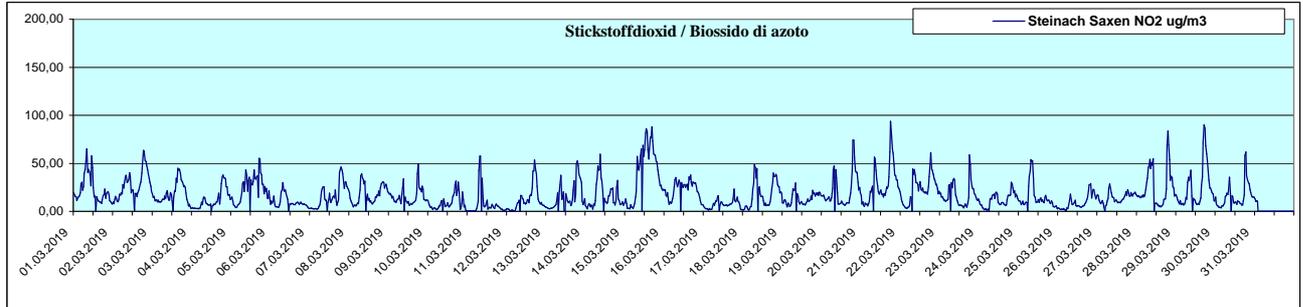
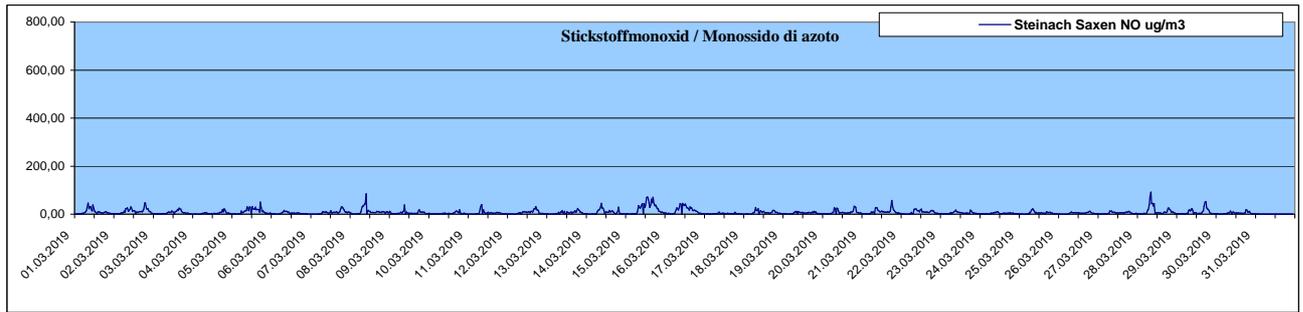
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	77,94	25,28	49,68	65,44	0		0	
Innsbruck Sillhöfe	90,64	27,82	52,45	71,99	0		0	
Steinach Siegreith	73,05	14,24	29,36	42,77	0		0	
Steinach Saxen	93,59	17,83	40,31	61,67	0		0	
Ampass	65,66	20,69	39,86	48,34	0		0	
Tulfes	78,33	16,15	43,73	54,03	0		0	

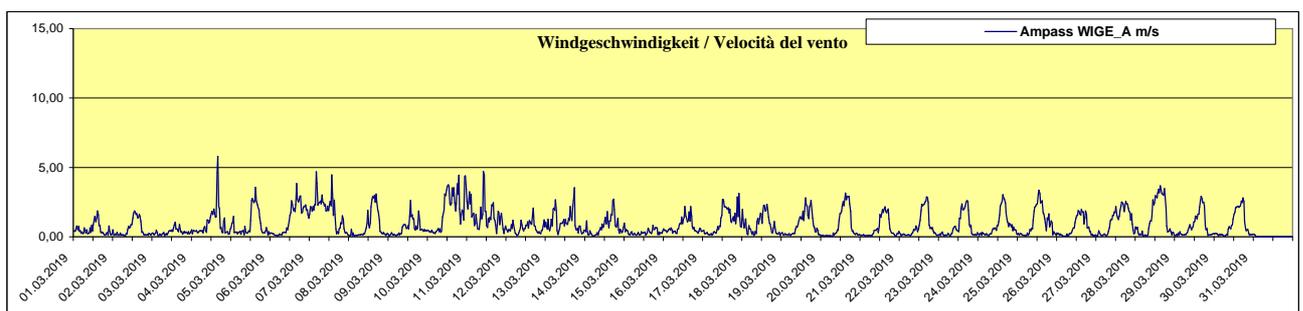
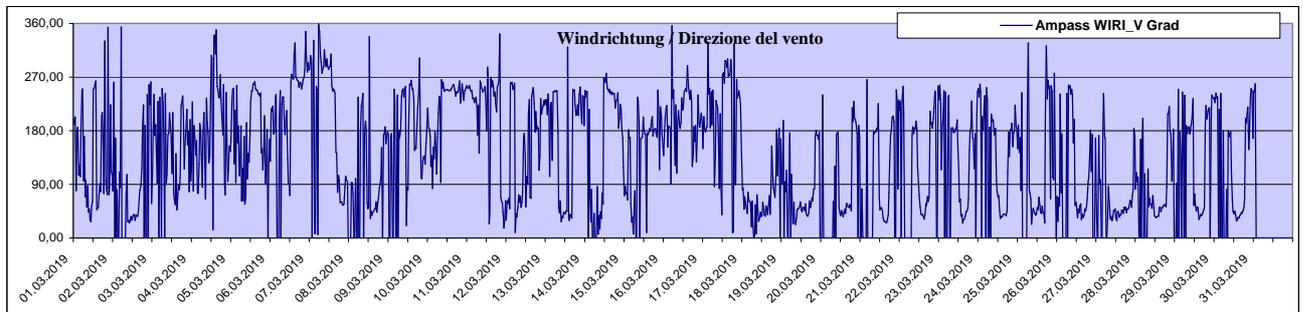
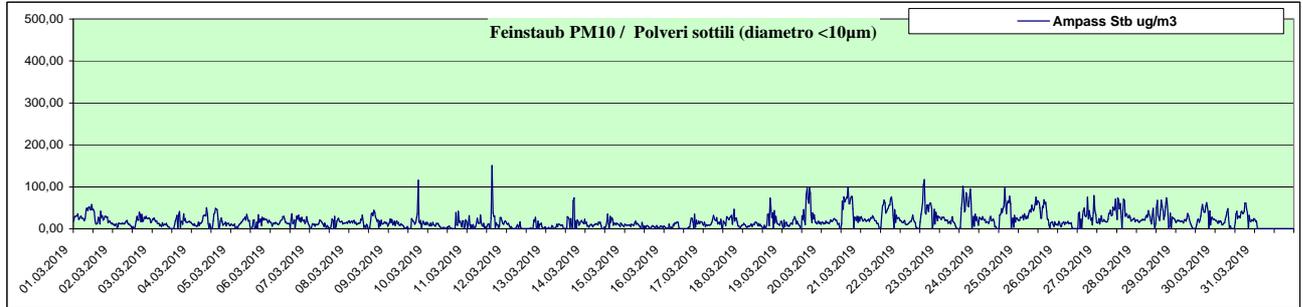
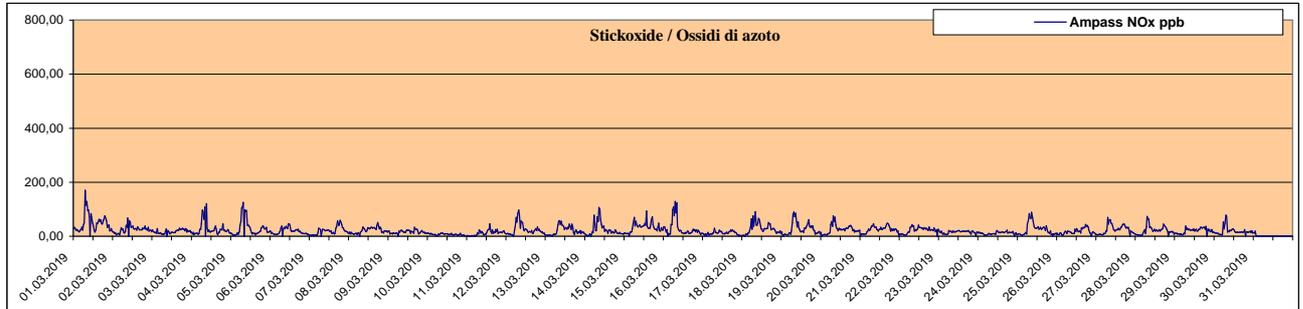
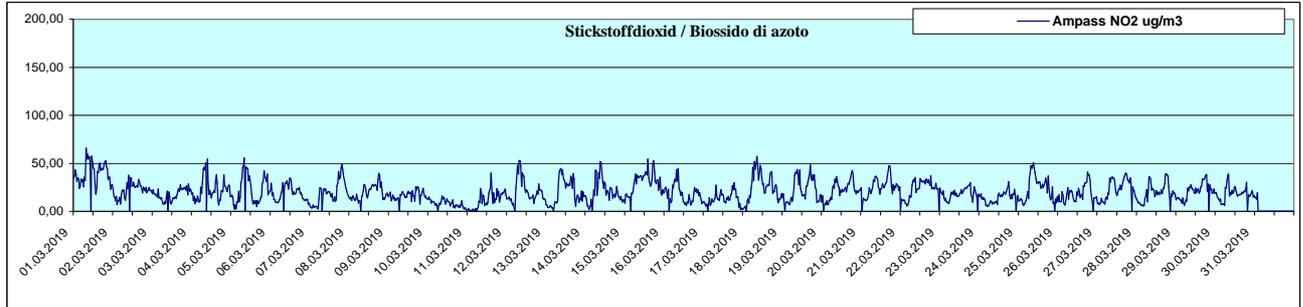
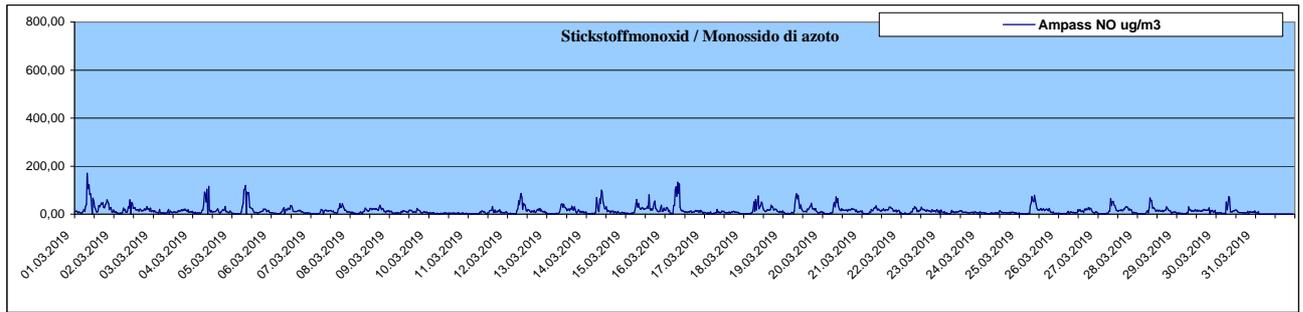
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	73,40	11,16	20,85	28,80	0		0	
Innsbruck Sillhöfe	38,30	10,00	18,03	26,60	0		0	
Steinach Siegreith	46,00	8,25	12,75	23,90	0		0	
Steinach Saxen	230,30	25,72	78,12	152,60	0		0	
Ampass	150,60	21,56	34,55	74,00	0		0	
Tulfes	43,20	9,22	15,83	25,80	0		0	

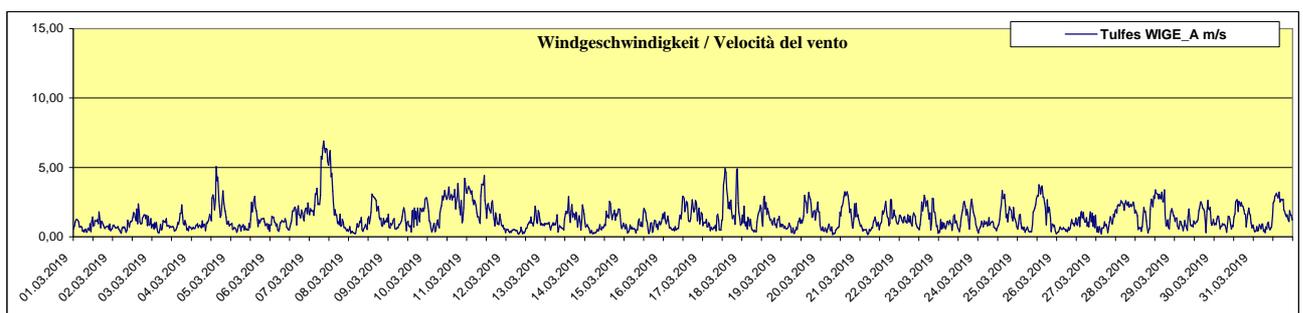
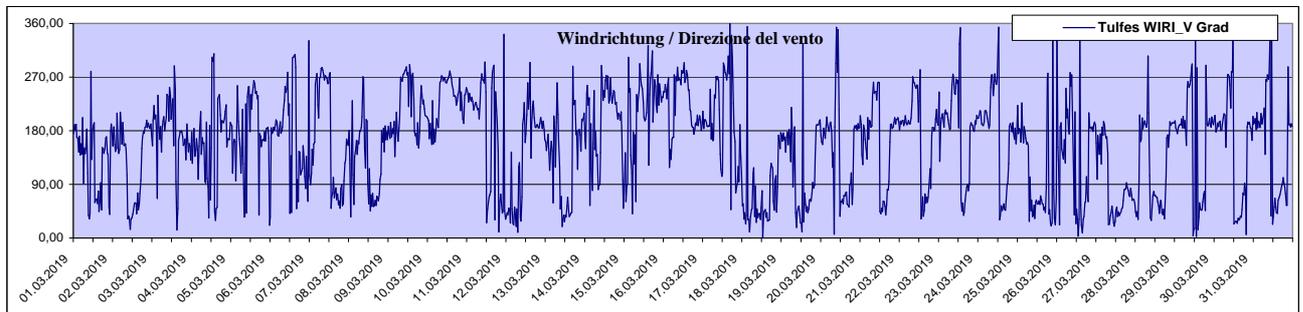
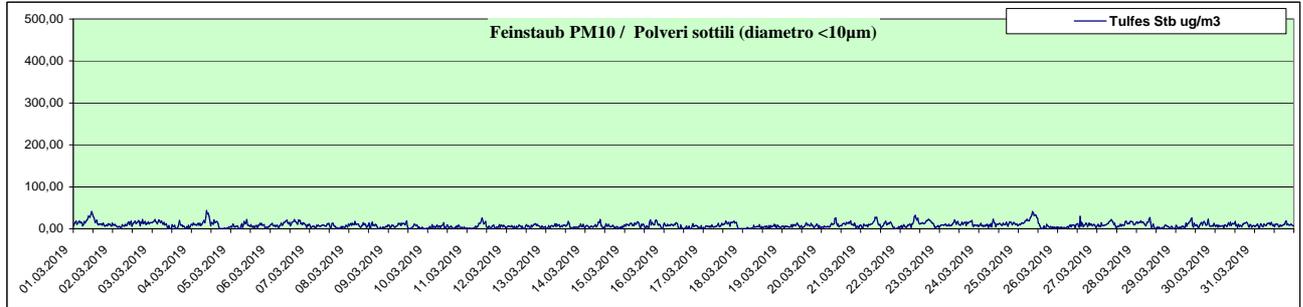
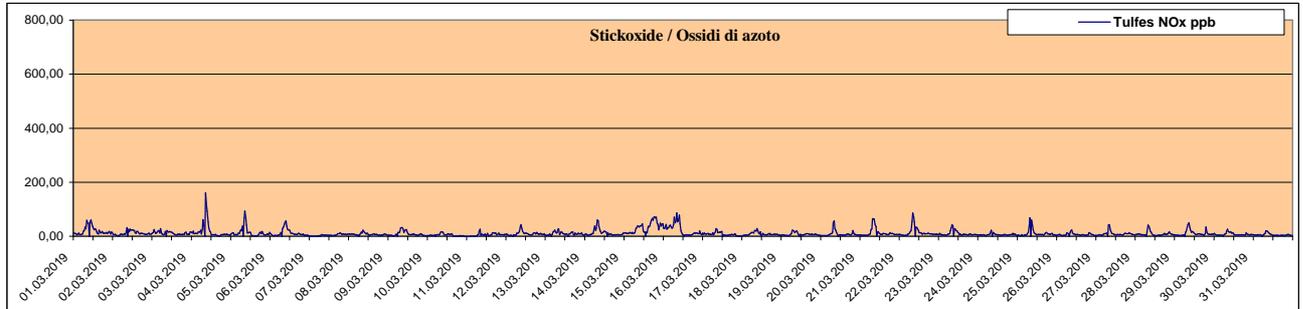
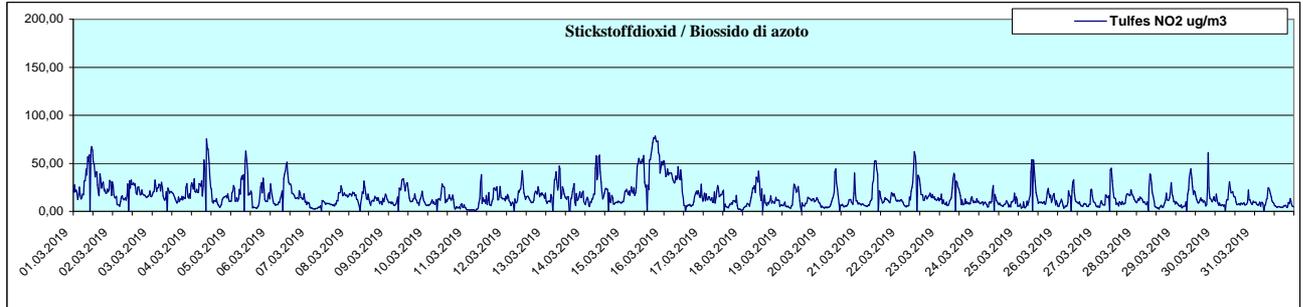
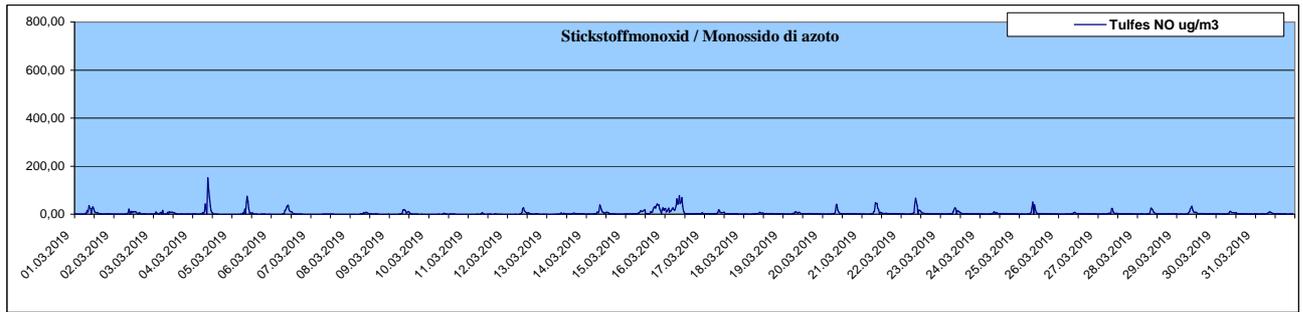




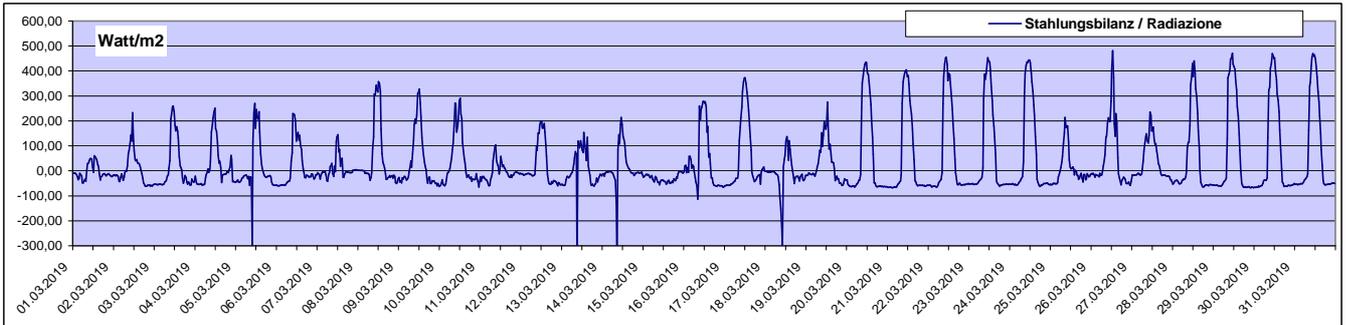
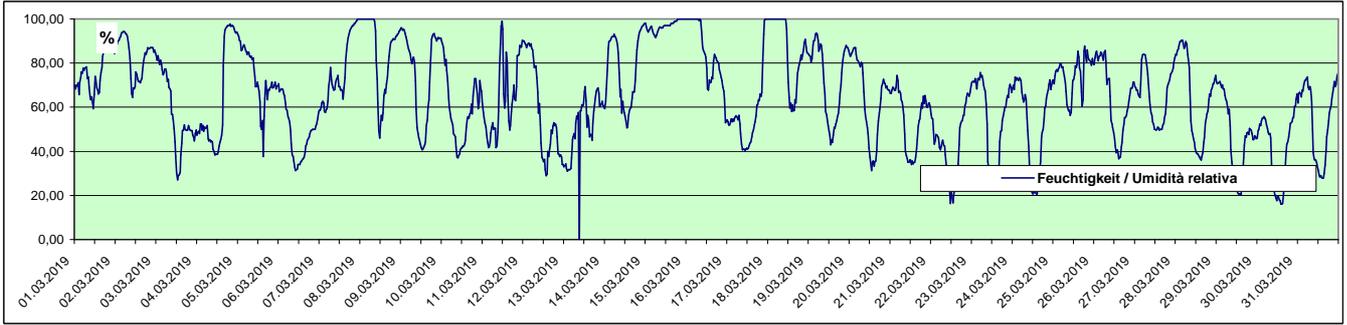
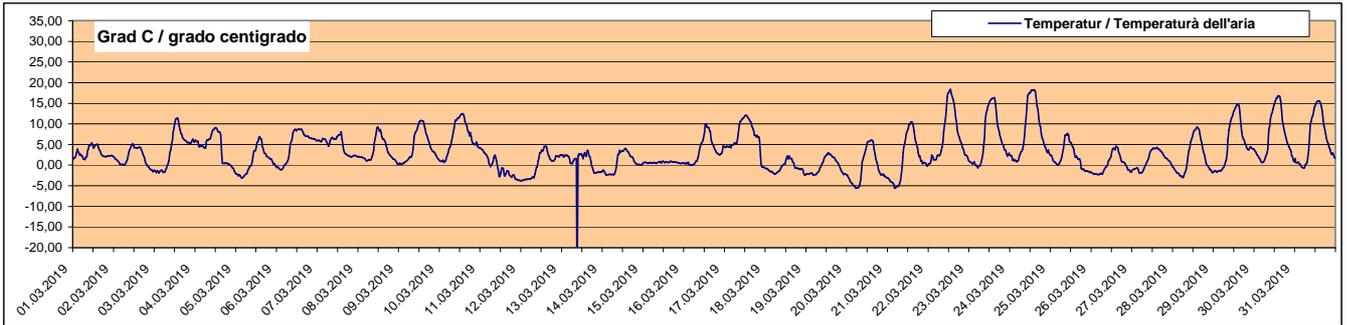
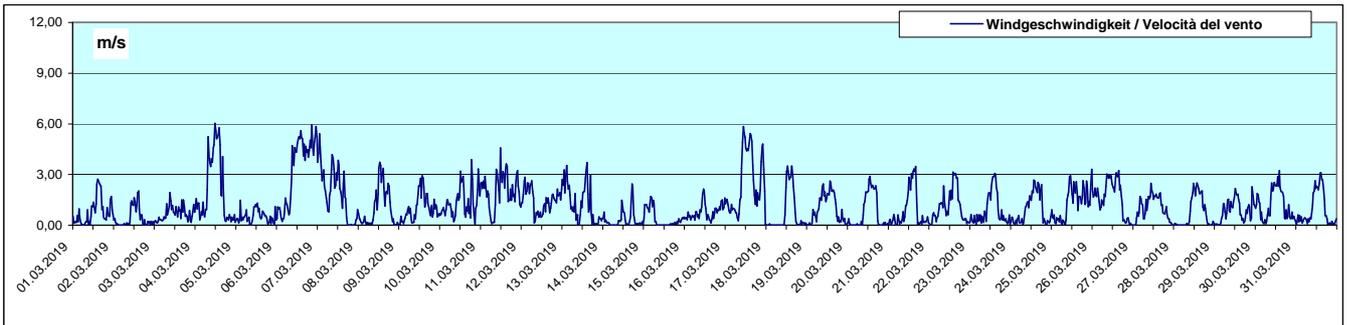
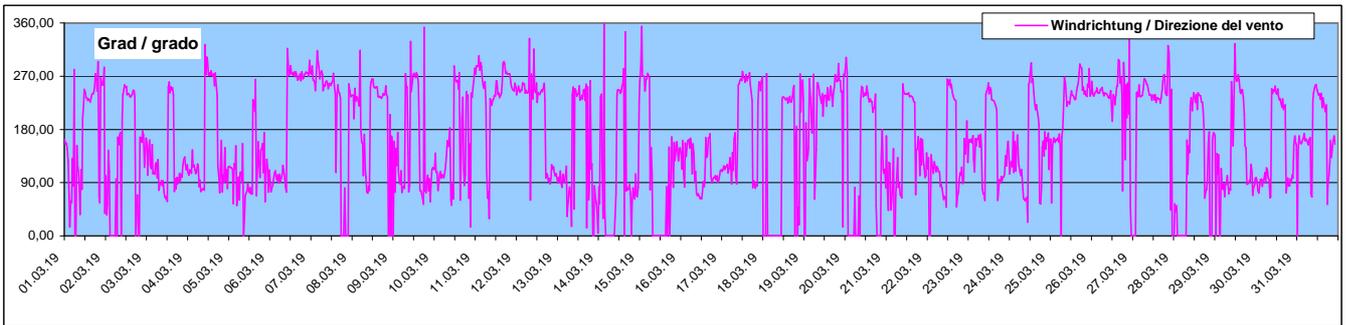








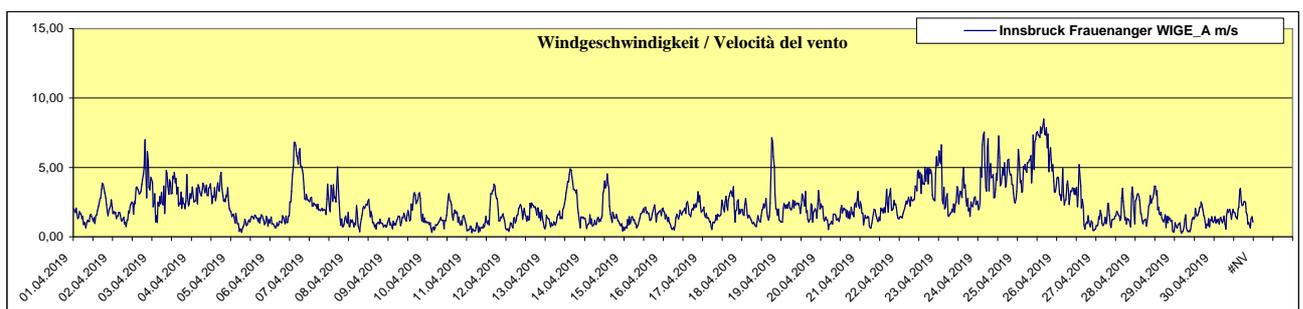
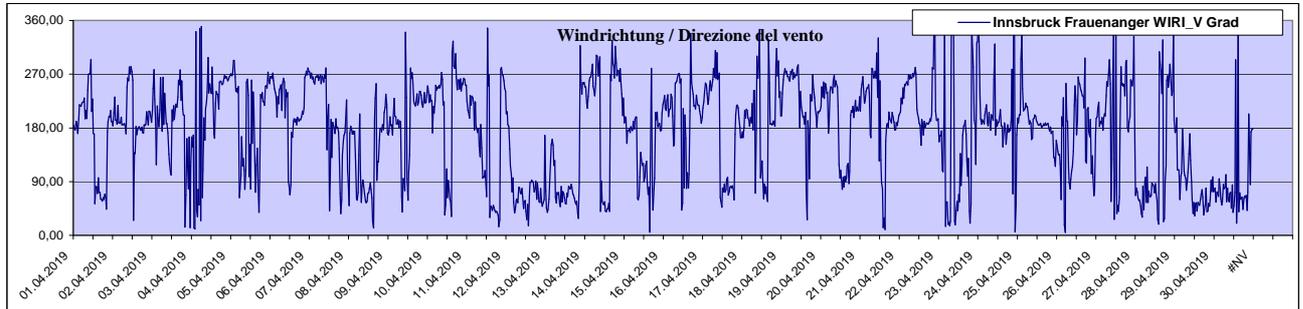
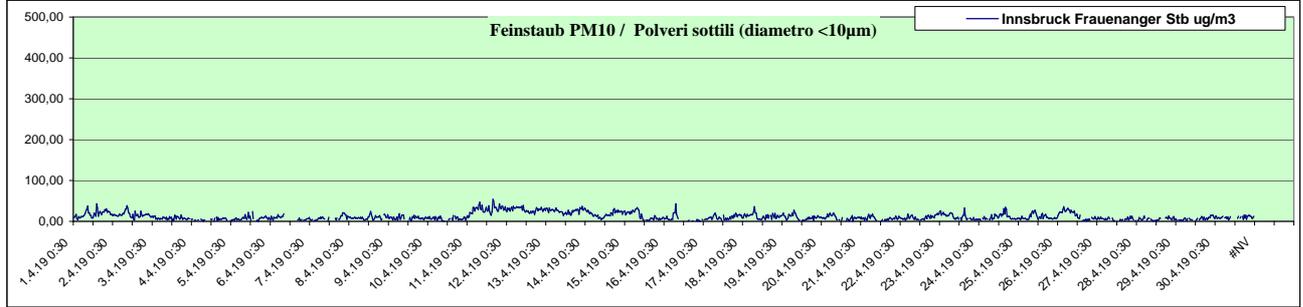
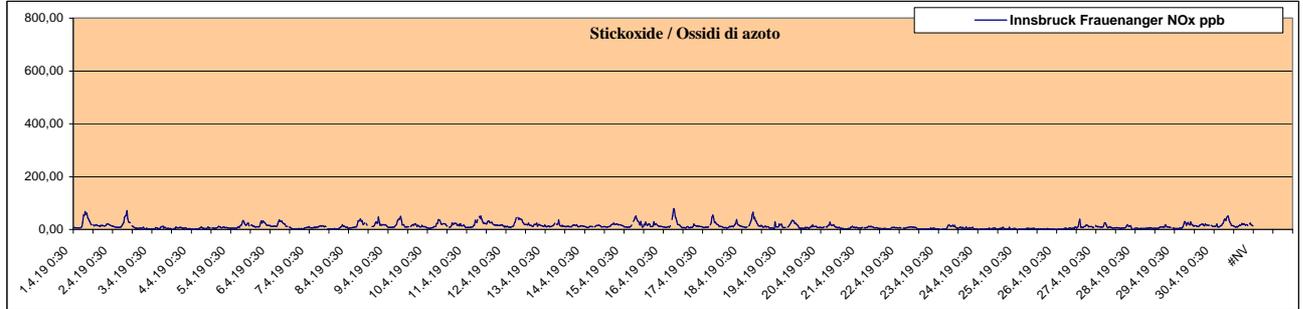
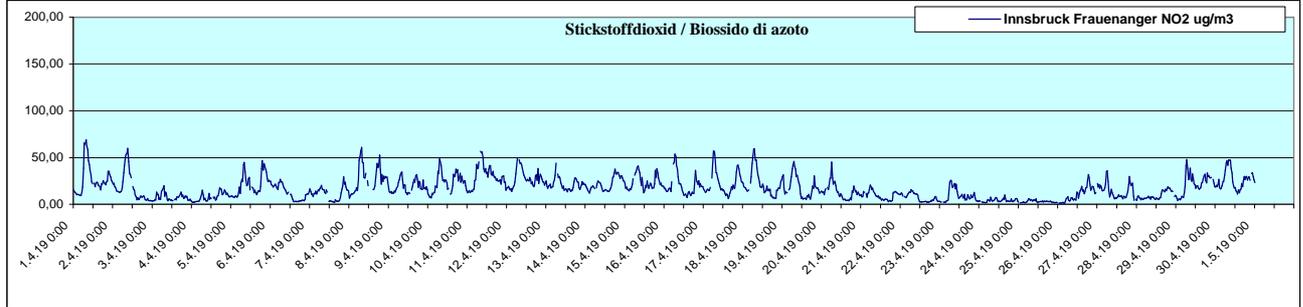
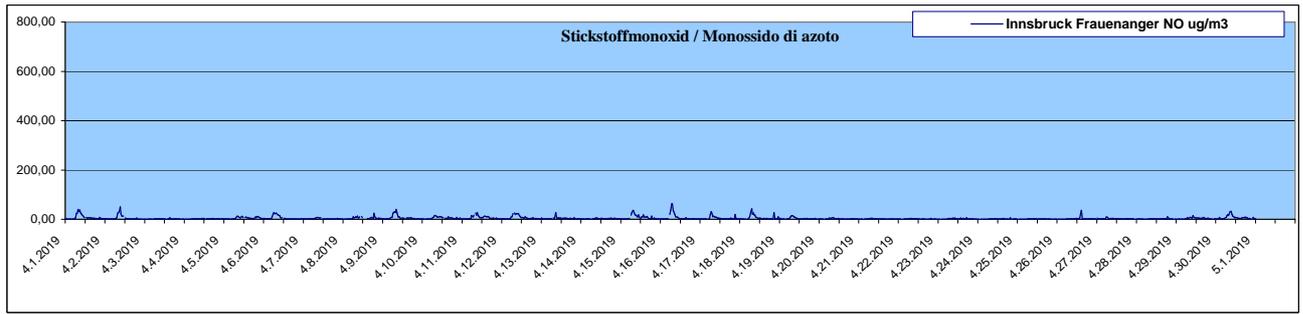
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal März 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal marzo 2019

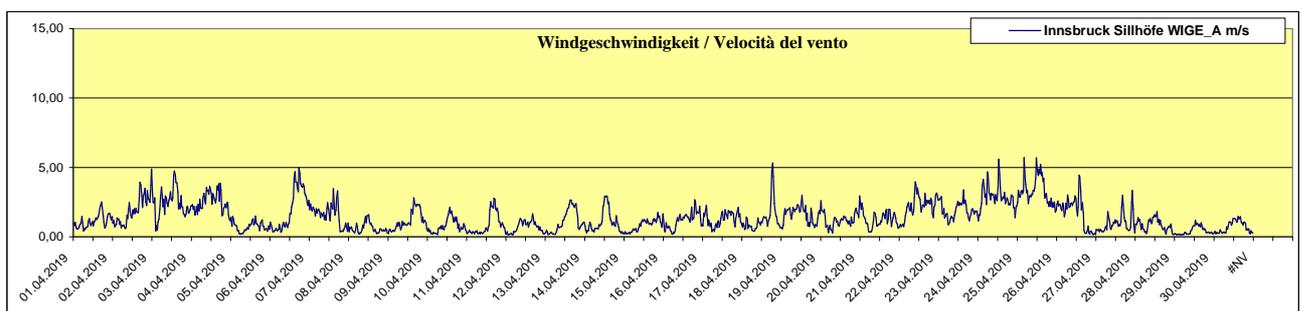
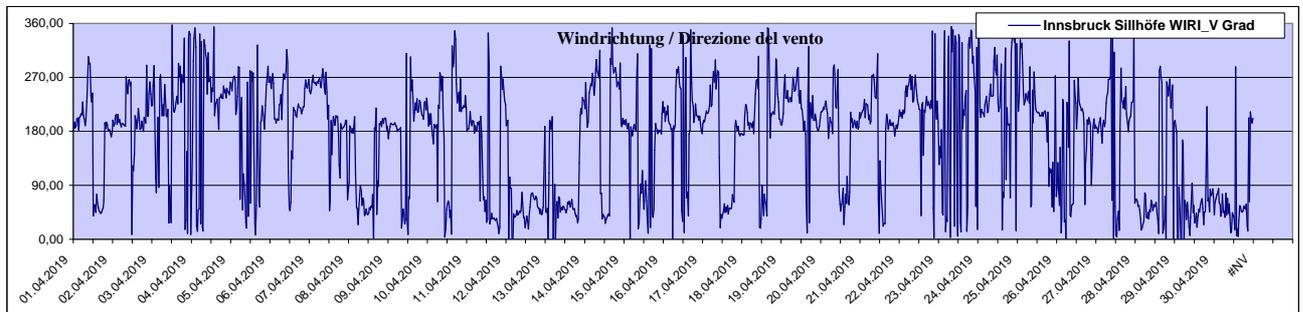
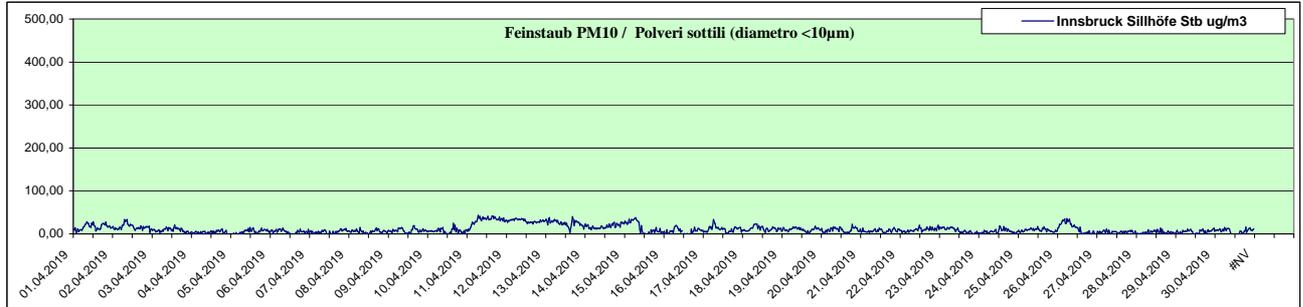
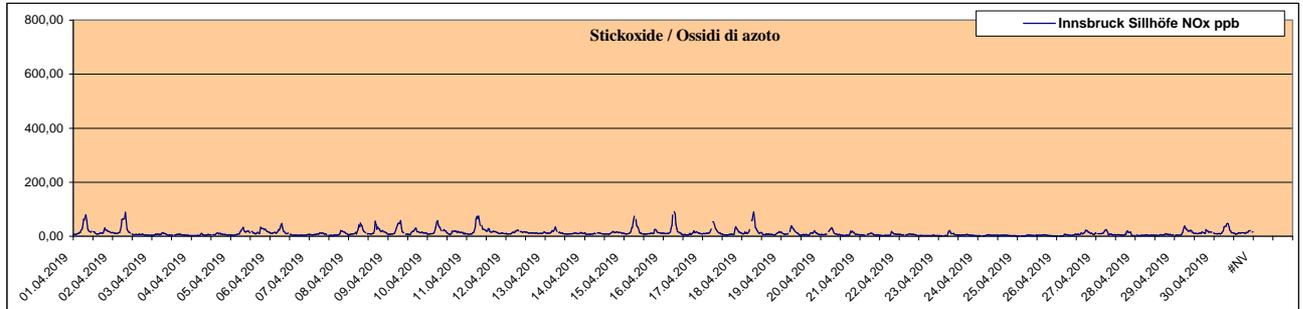
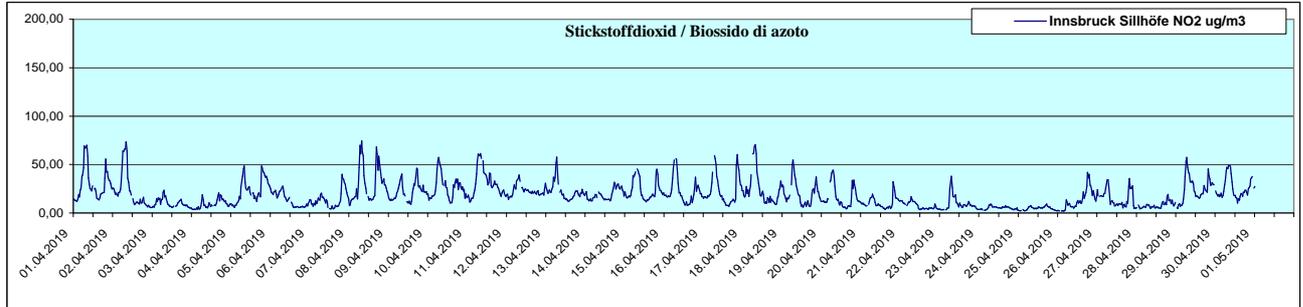
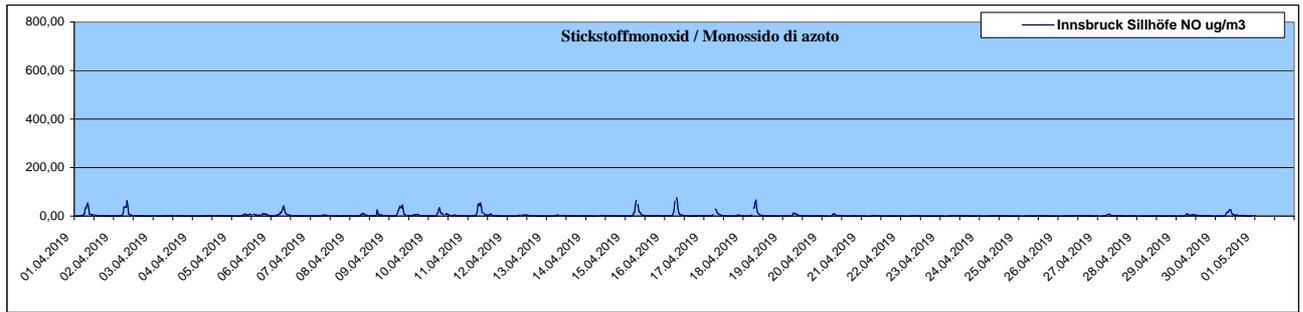


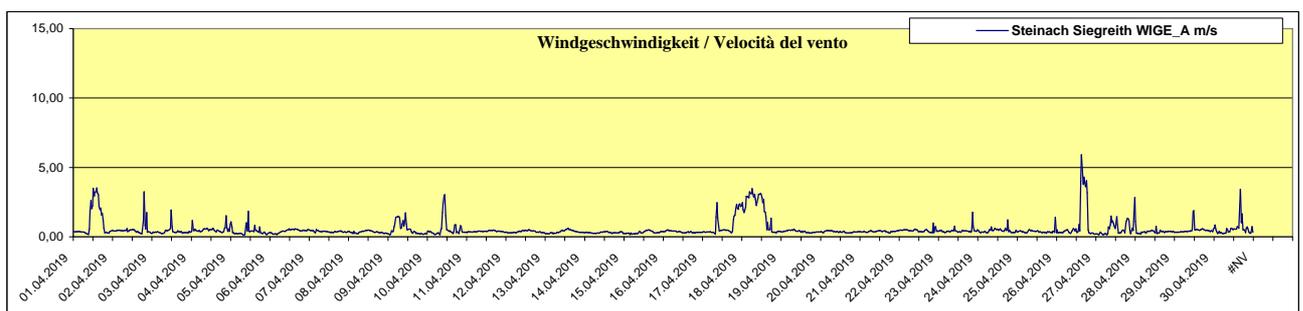
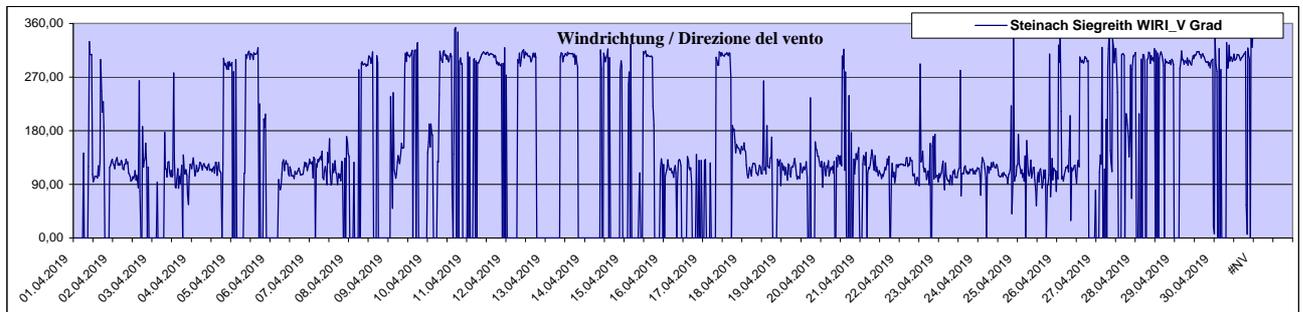
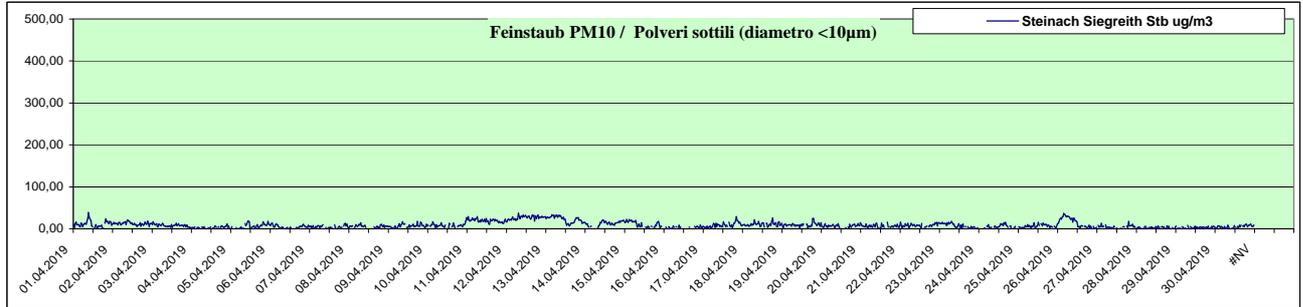
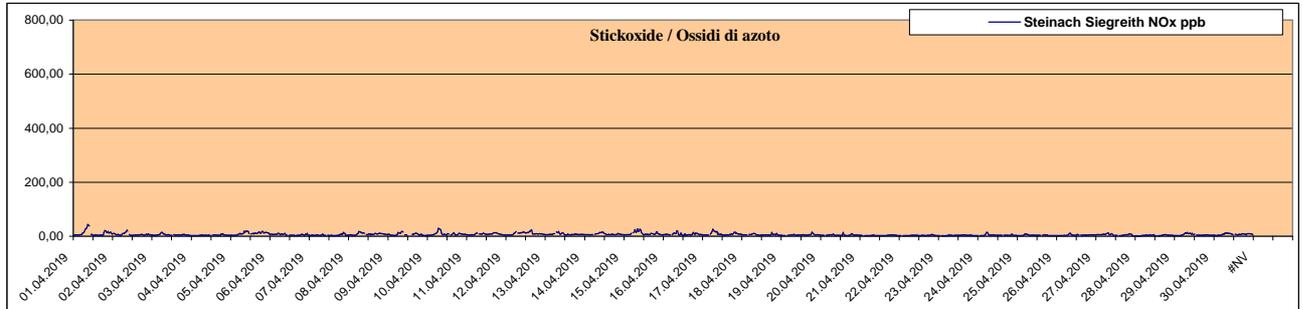
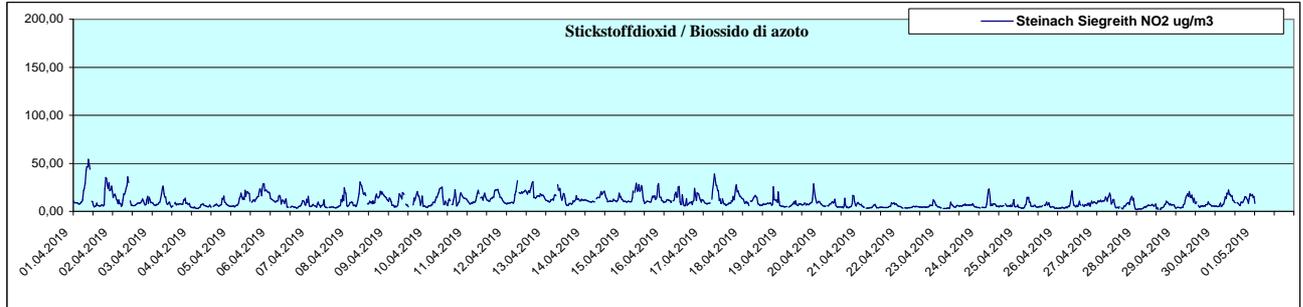
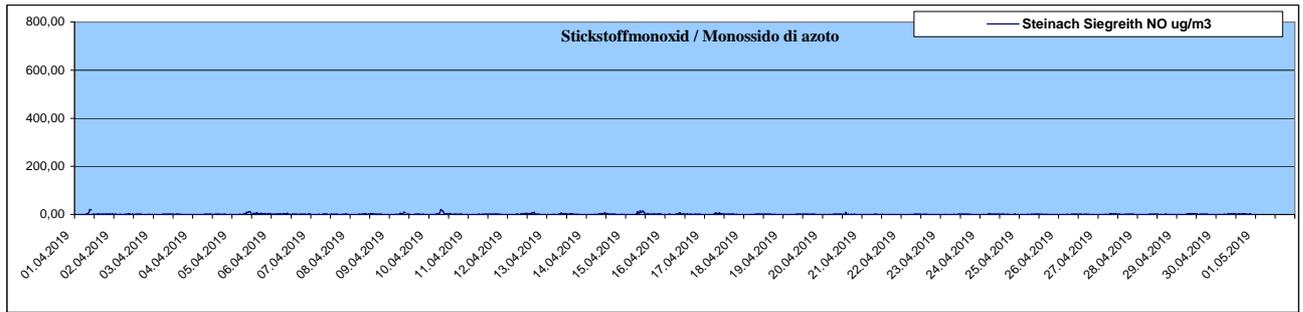
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	63,44	4,05	7,98	26,20	0		0	
Innsbruck Sillhöfe	76,33	2,98	7,67	34,12	0		0	
Steinach Siegreith	21,70	1,28	3,41	7,93	0		0	
Steinach Saxen	69,63	7,05	17,60	40,30	0		0	
Ampass	123,26	11,57	31,56	48,58	0		0	
Tulfes	51,59	2,22	6,18	18,03	0		0	

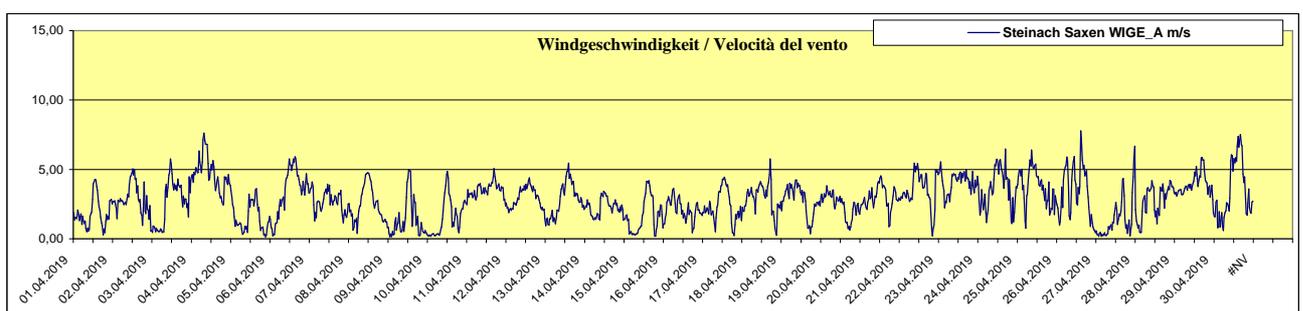
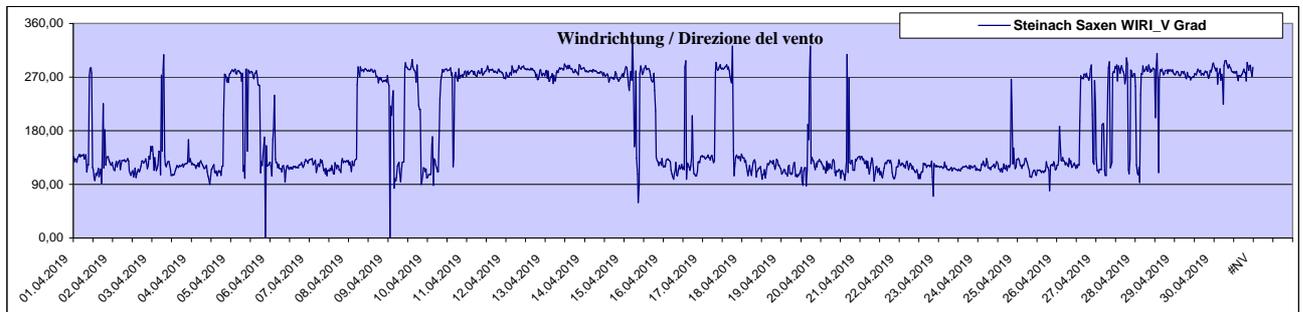
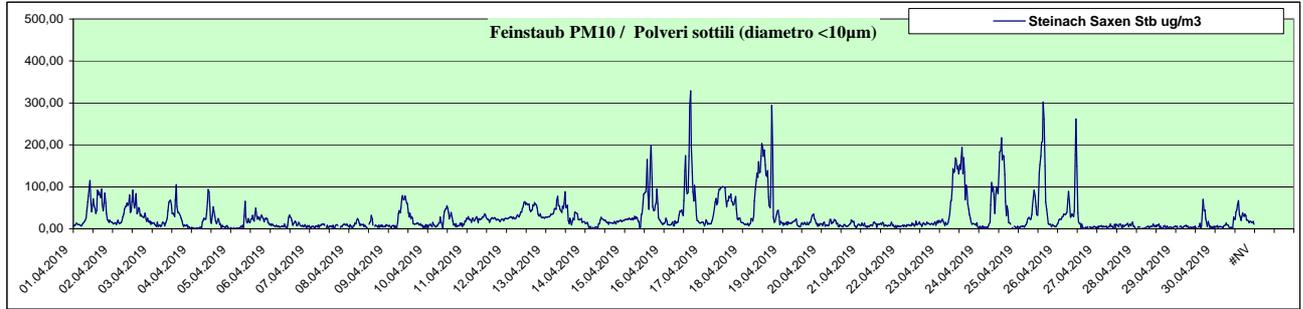
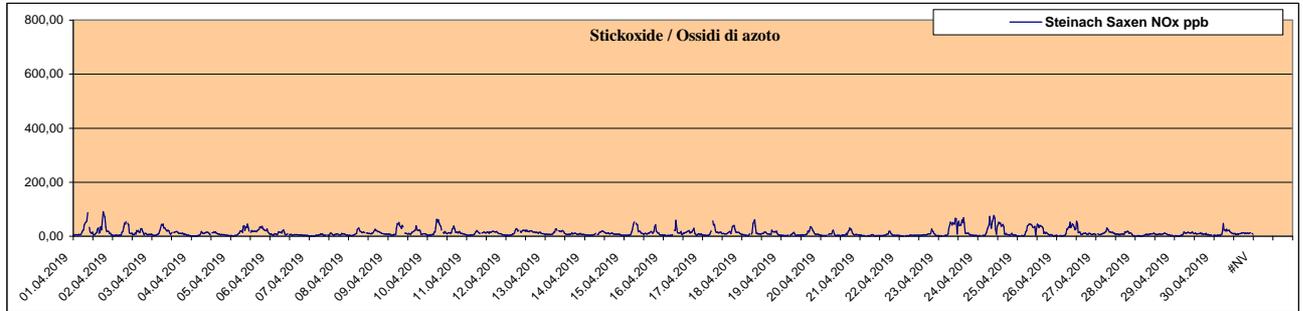
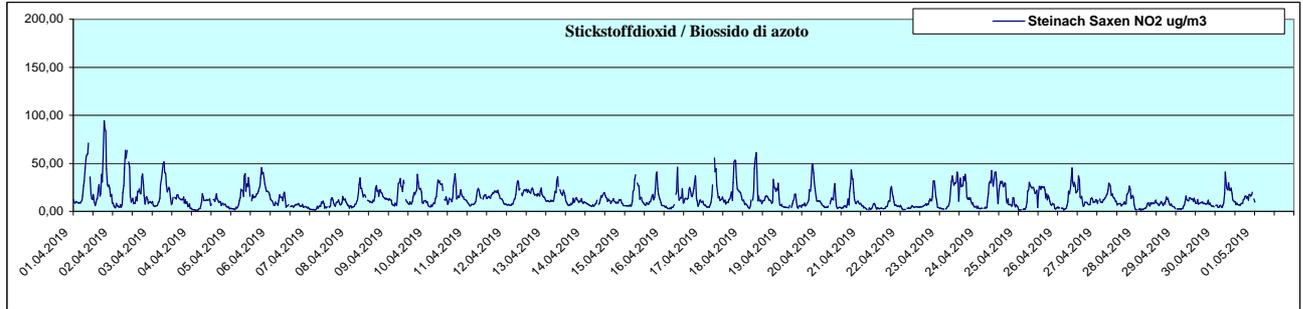
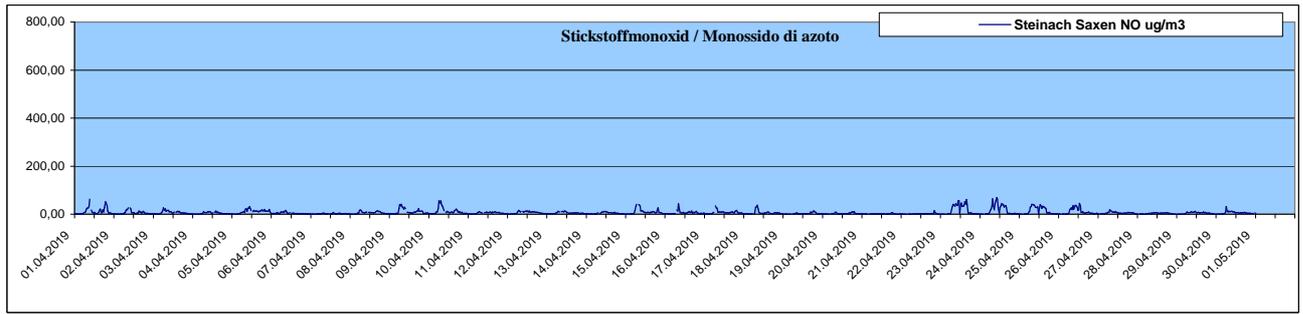
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	69,05	16,98	29,92	47,72	0		0	
Innsbruck Sillhöfe	74,35	18,37	30,81	58,85	0		0	
Steinach Siegreith	54,12	10,21	17,94	27,22	0		0	
Steinach Saxen	94,38	13,56	27,41	44,77	0		0	
Ampass	99,98	22,85	40,98	60,00	0		0	
Tulfes	71,25	11,42	16,63	38,79	0		0	

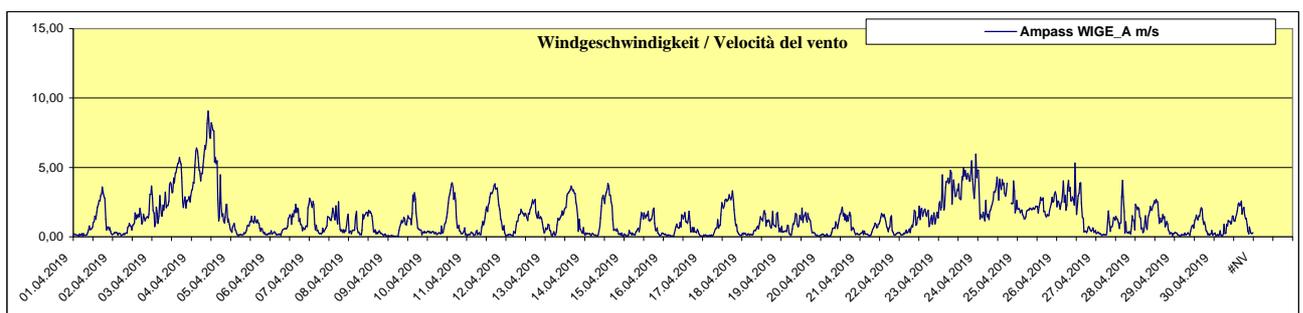
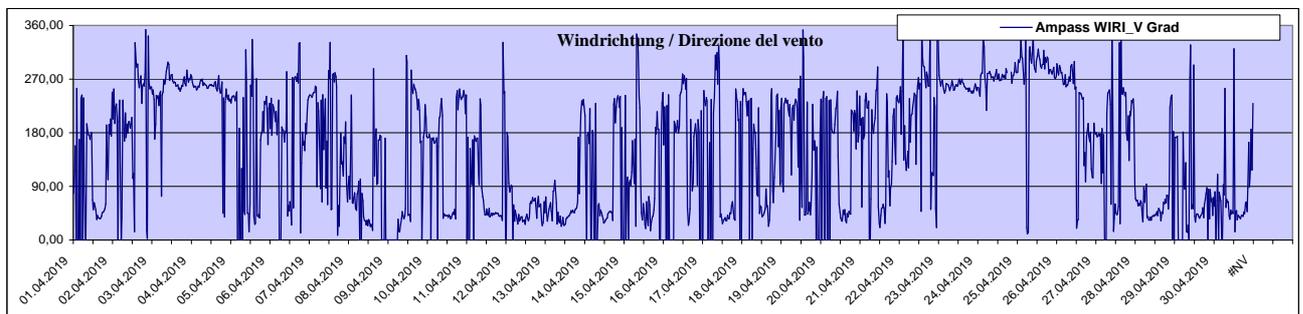
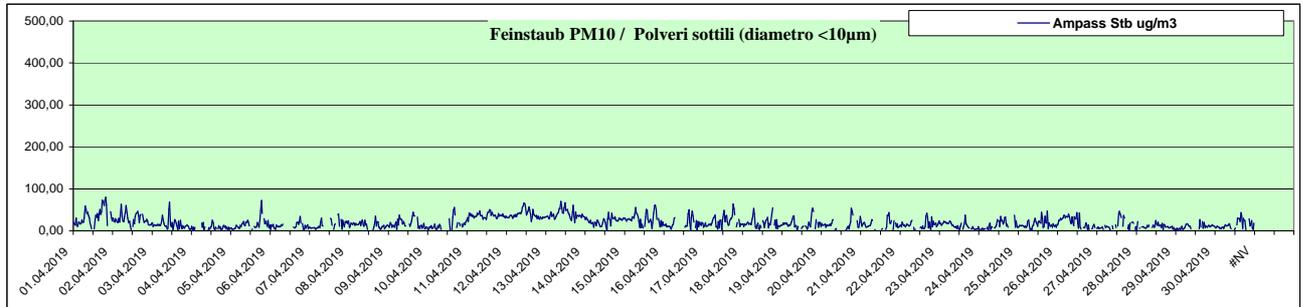
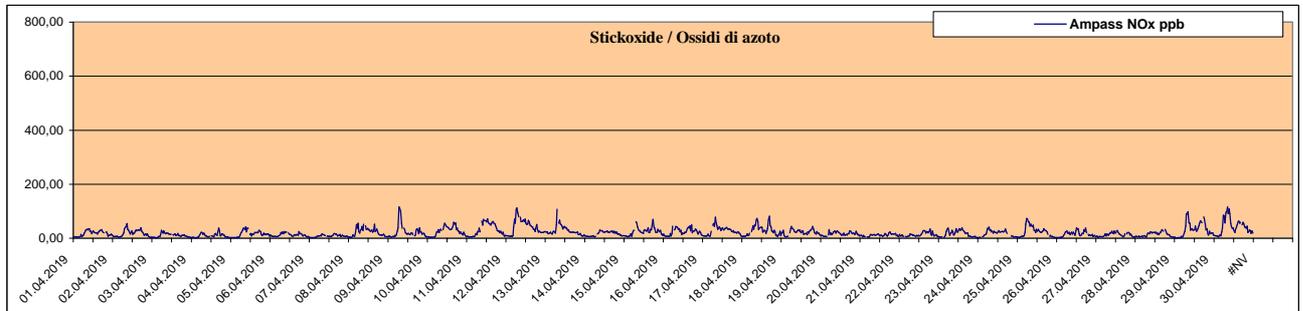
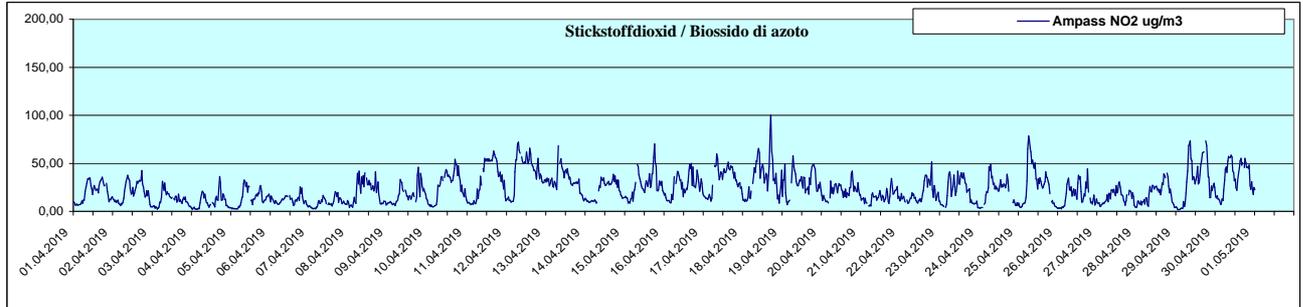
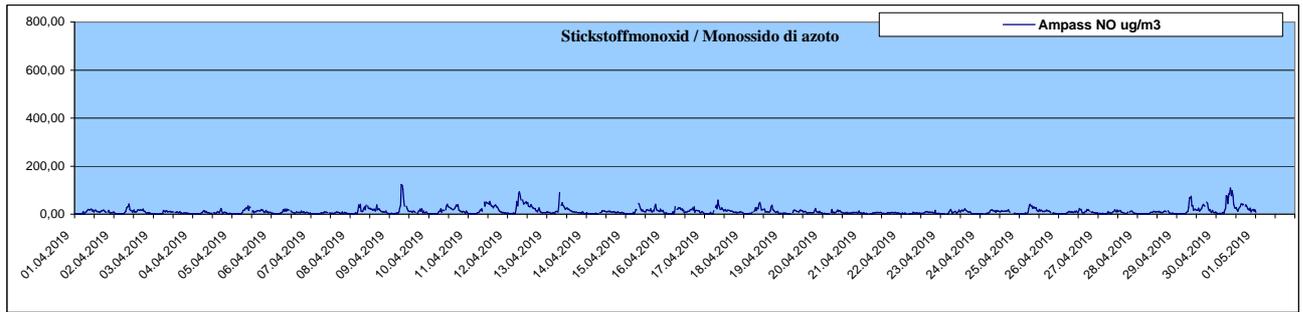
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	53,70	12,07	29,40	34,70	0		0	
Innsbruck Sillhöfe	43,10	10,74	31,38	34,90	0		0	
Steinach Siegreith	39,10	9,34	26,60	29,60	0		0	
Steinach Saxen	328,40	28,07	76,34	169,60	4		2	
Ampass	80,20	19,51	39,63	54,70	0		0	
Tulfes	63,60	12,88	33,18	38,90	0		0	

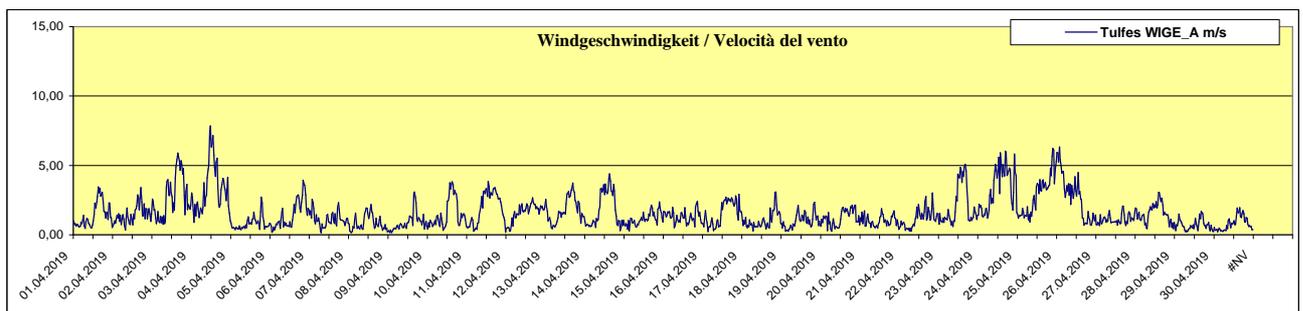
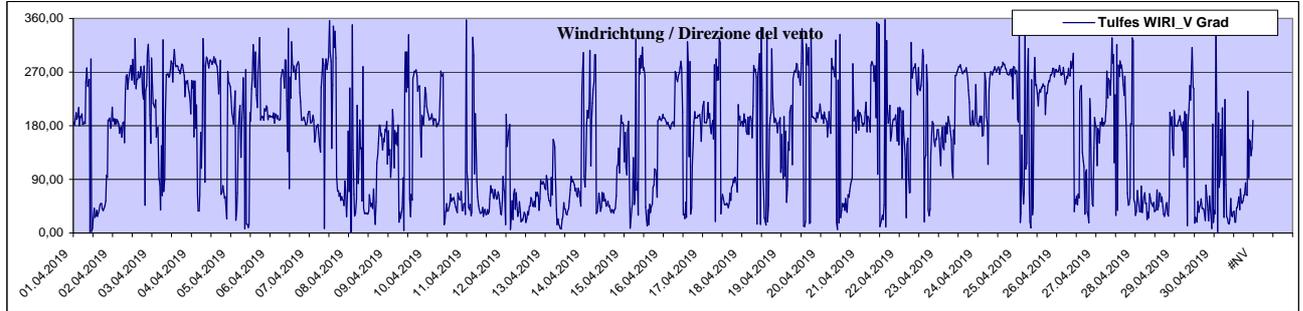
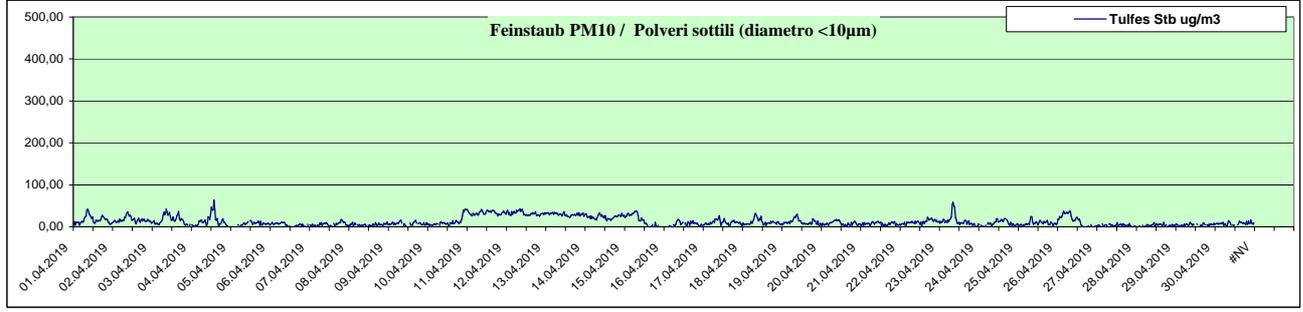
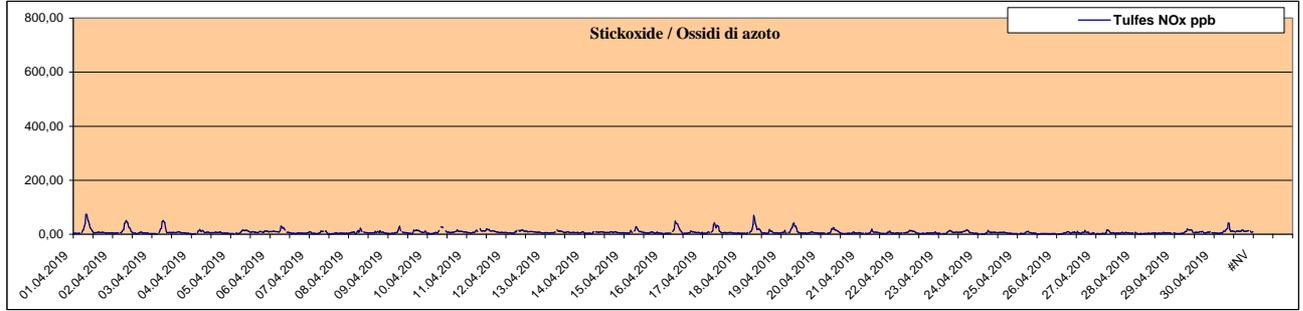
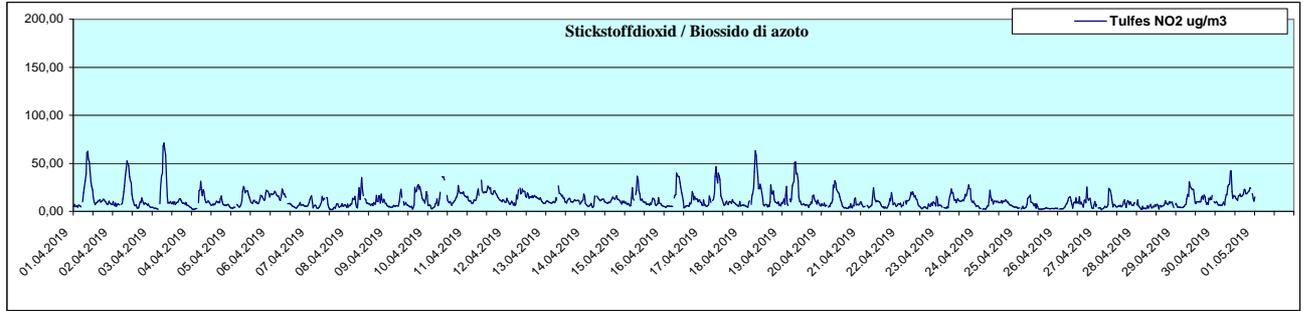
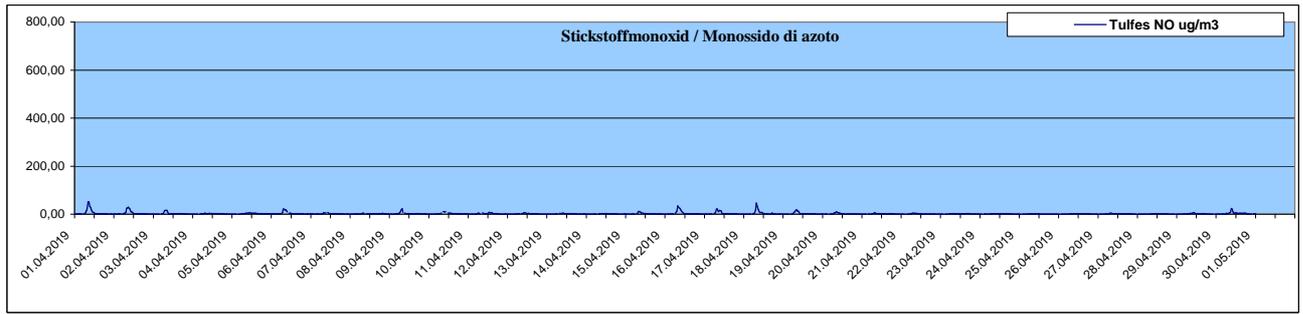




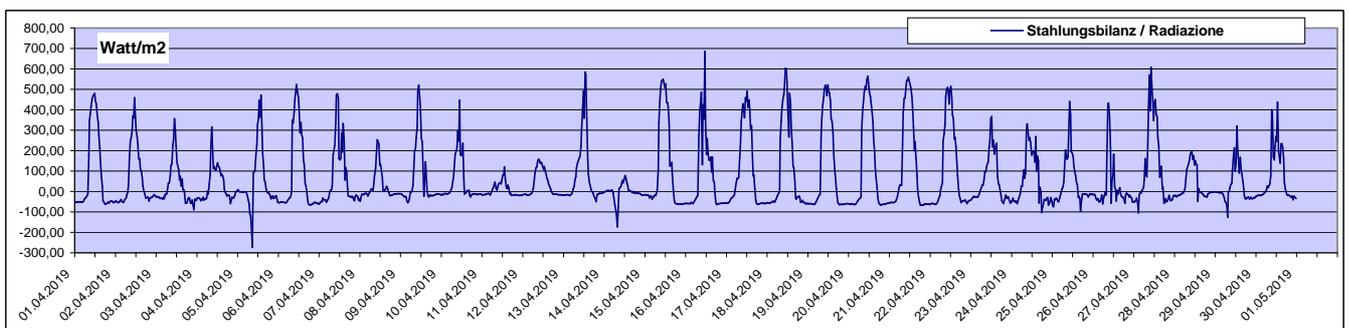
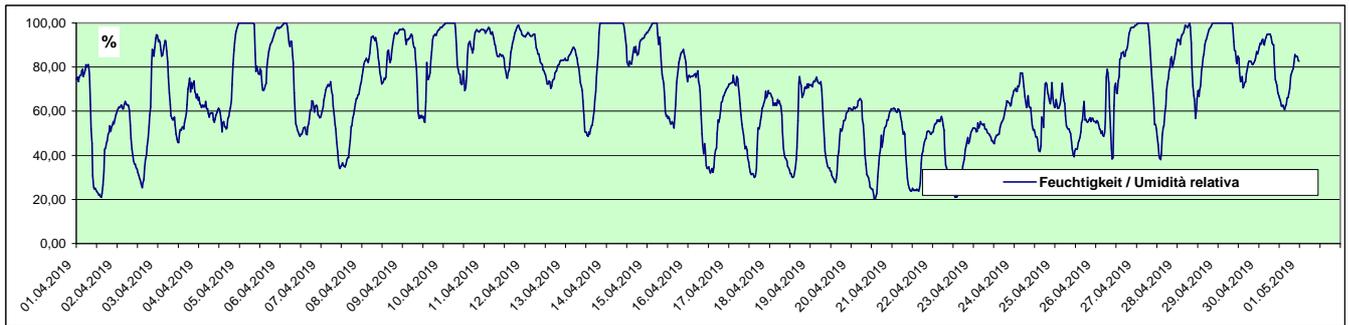
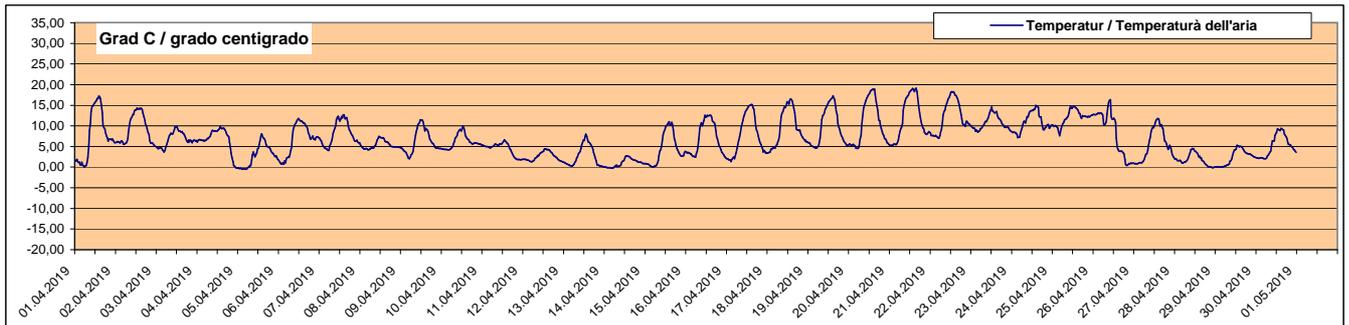
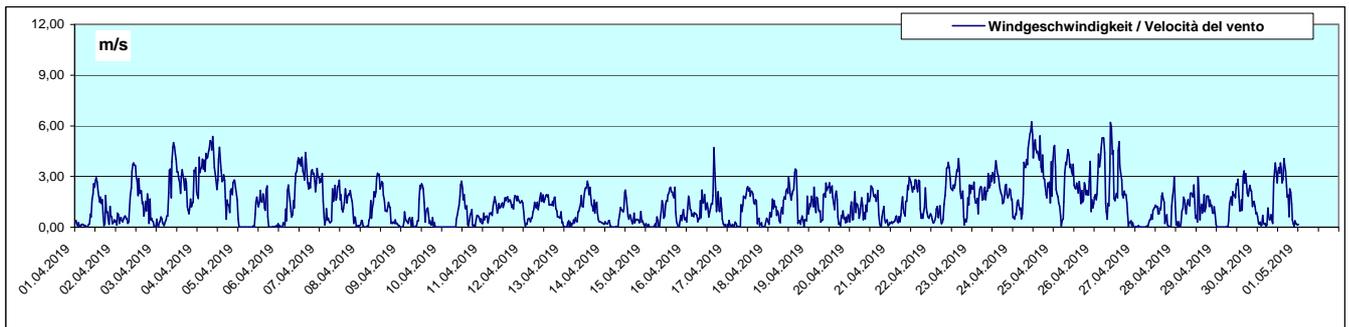
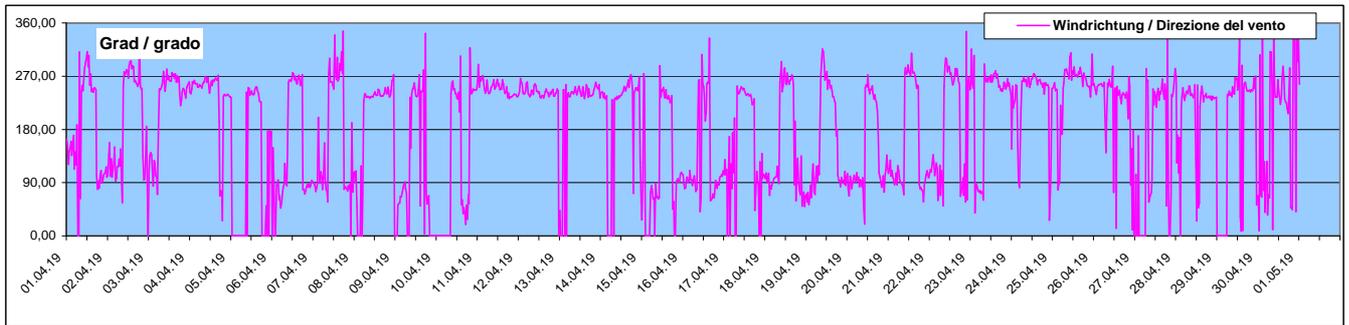








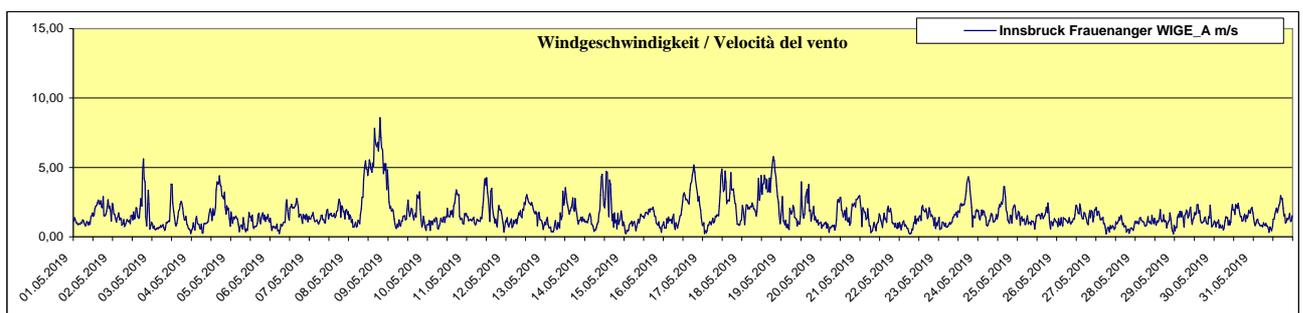
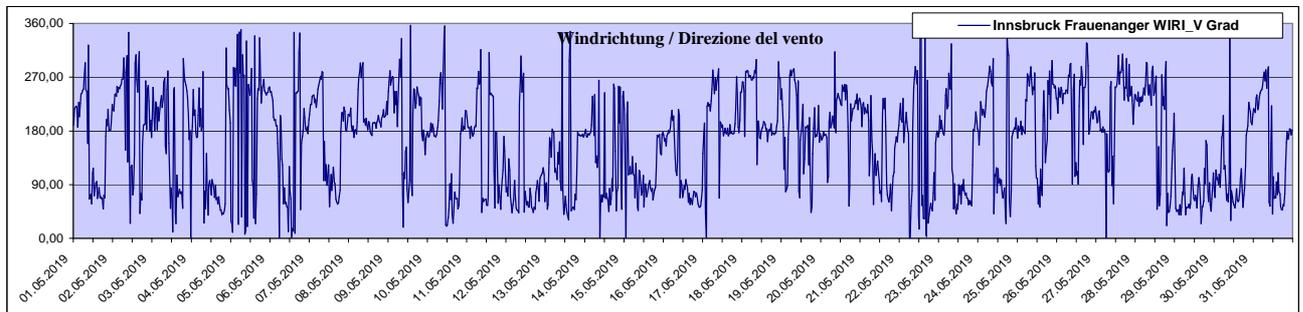
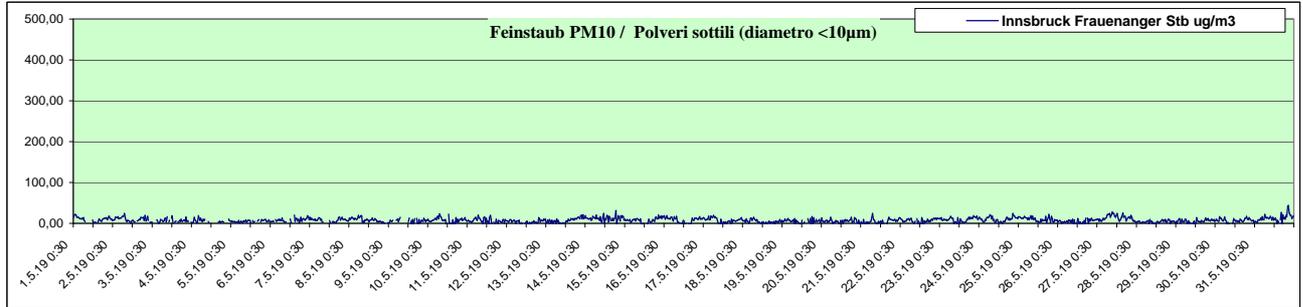
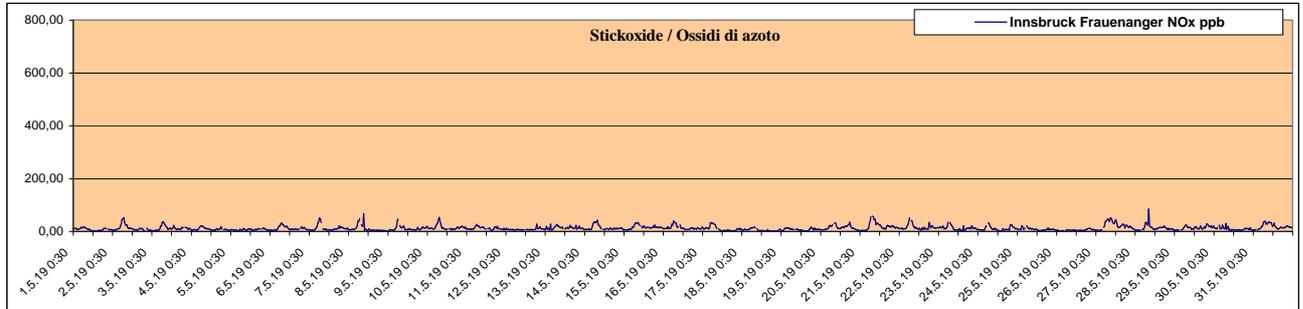
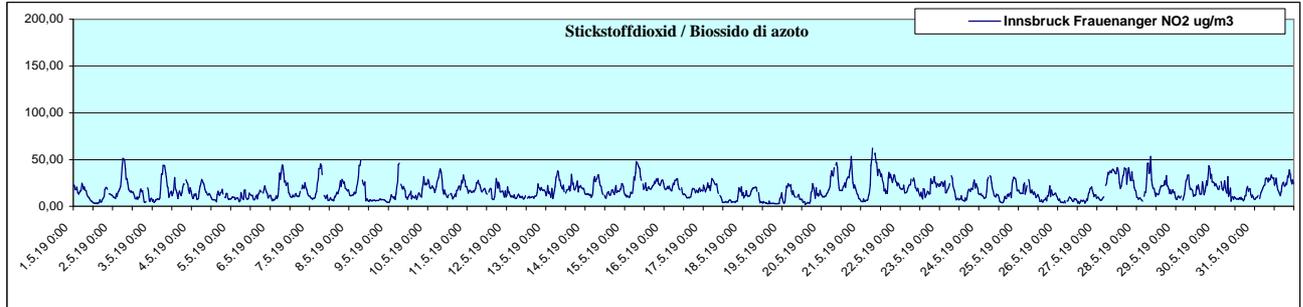
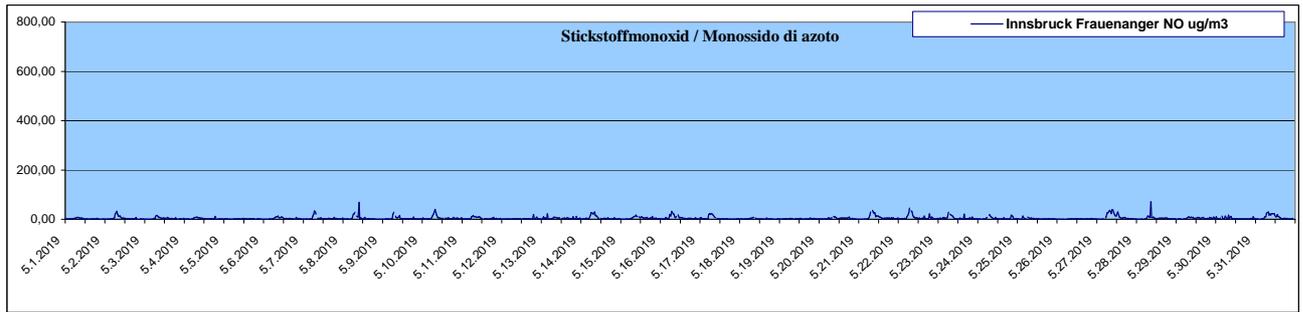
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal April 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal aprile 2019

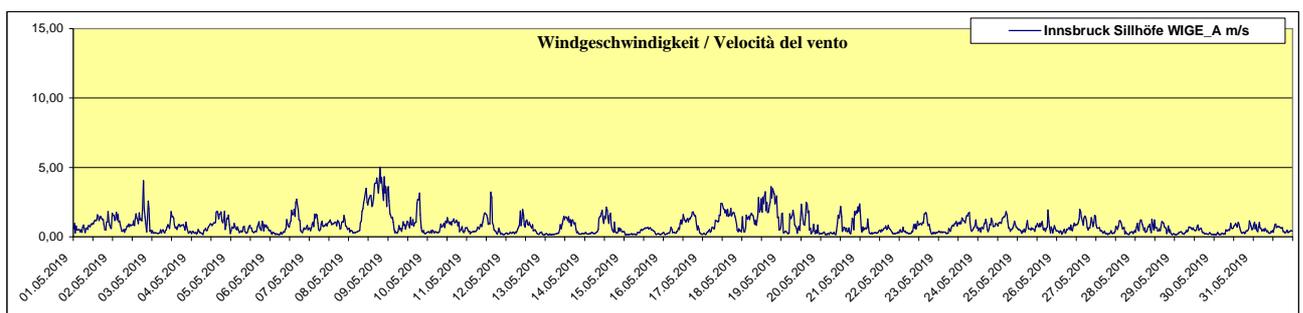
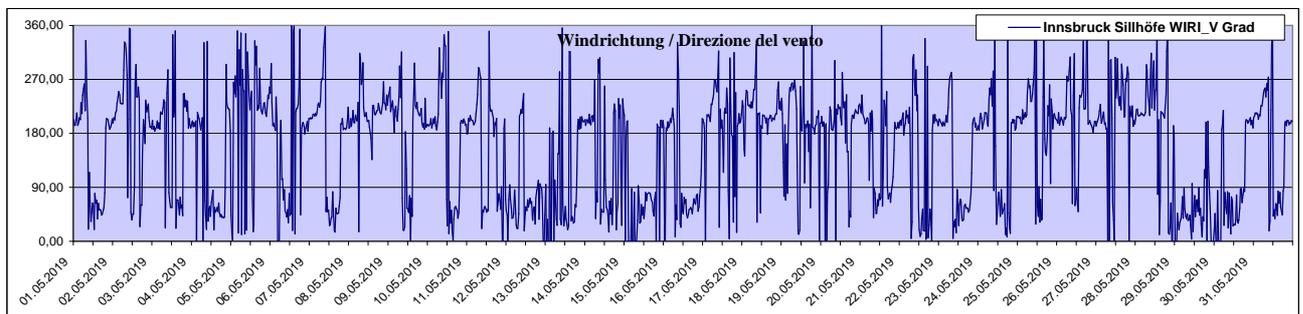
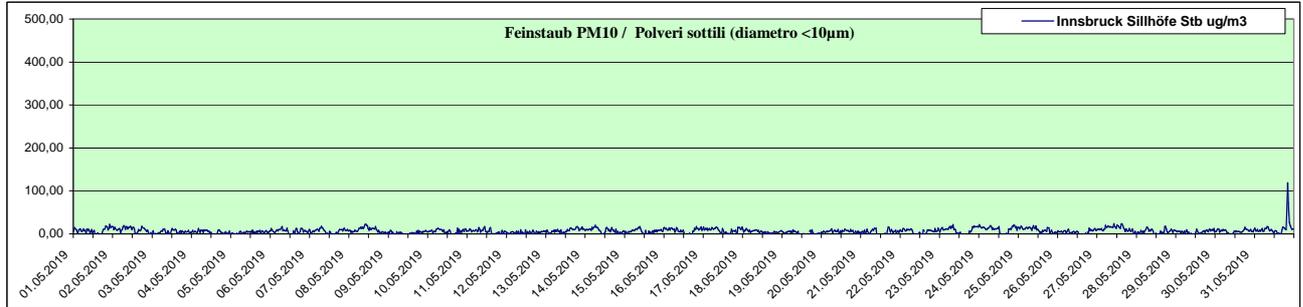
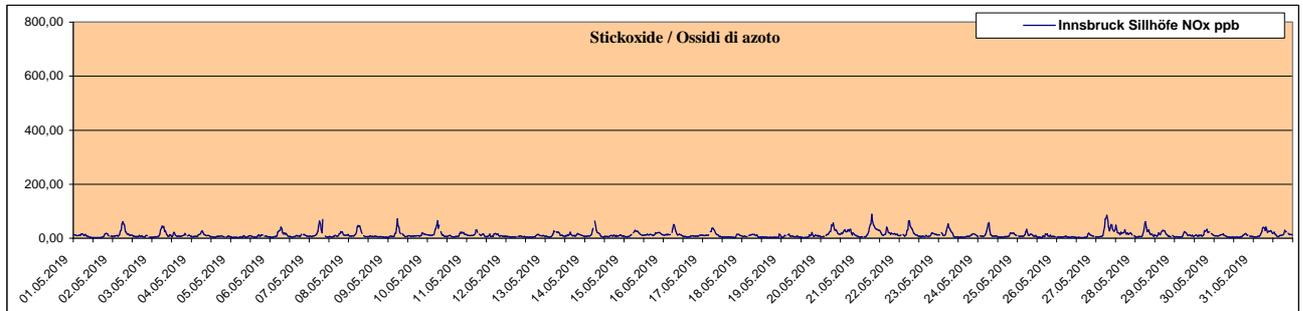
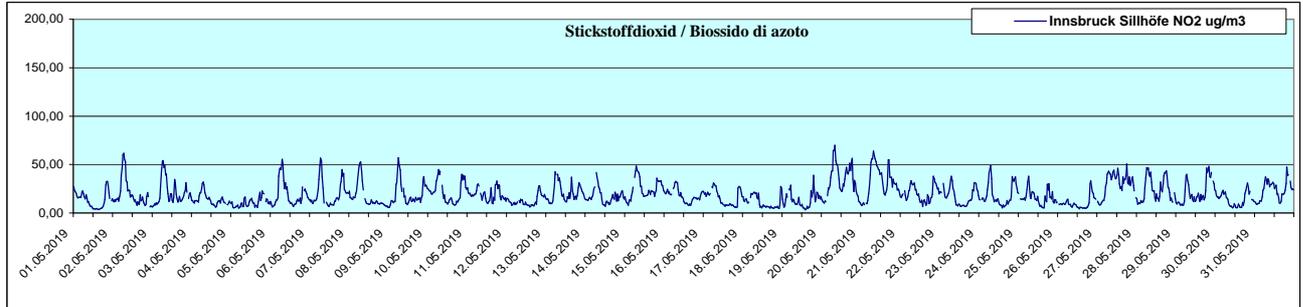
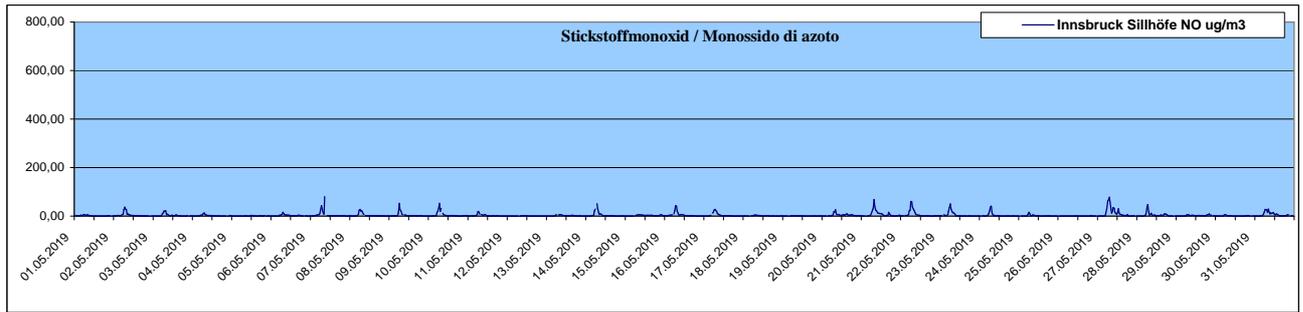


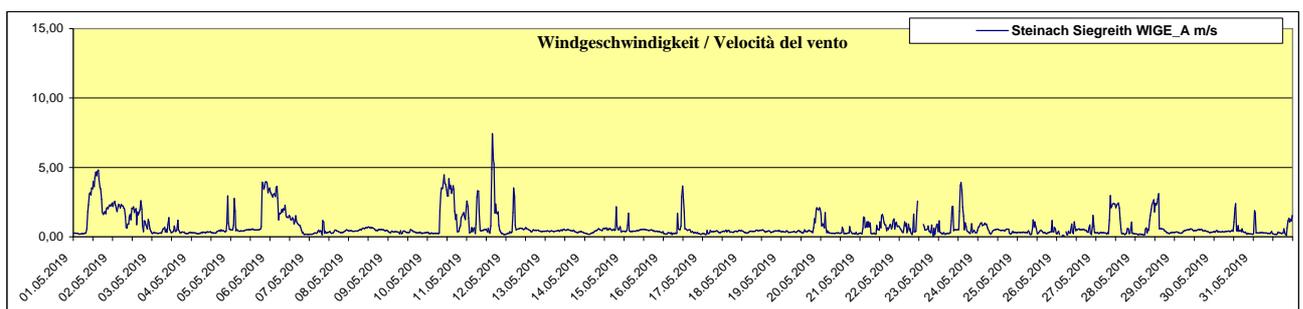
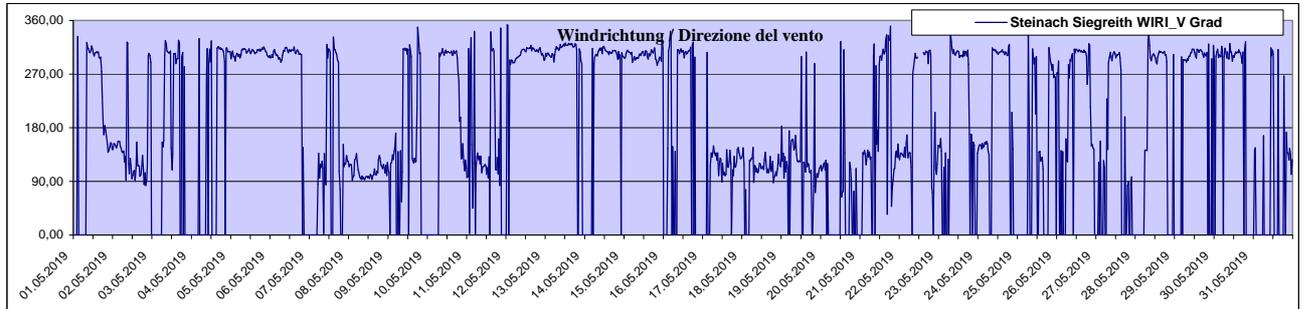
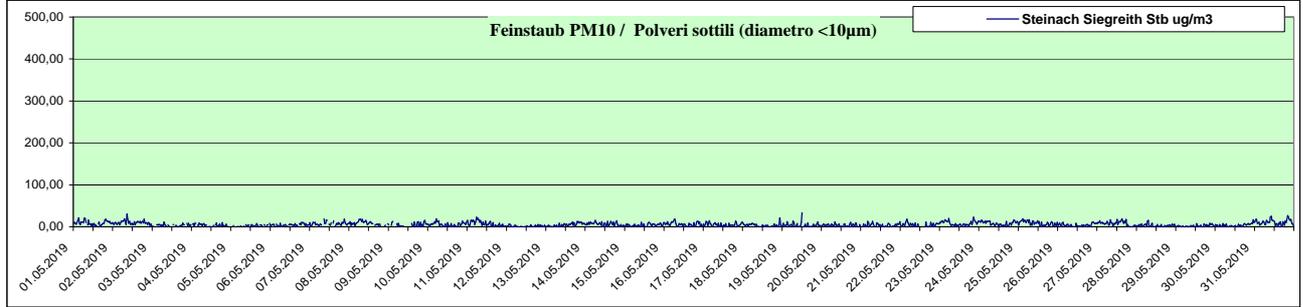
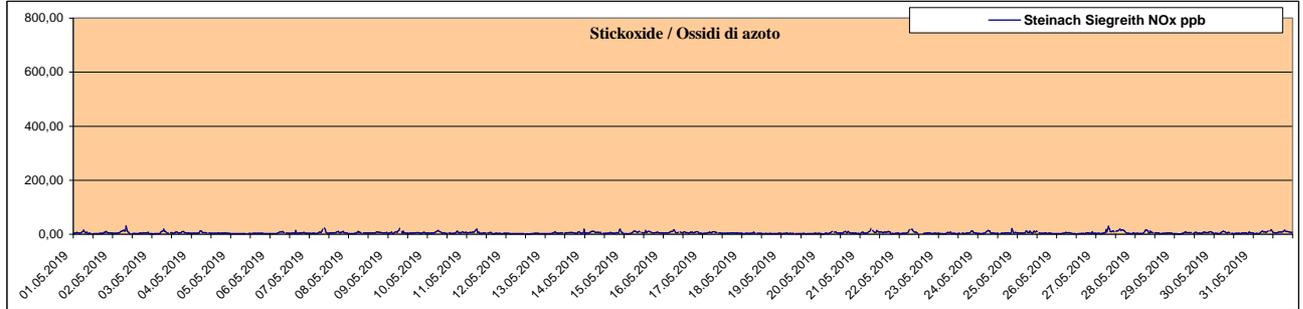
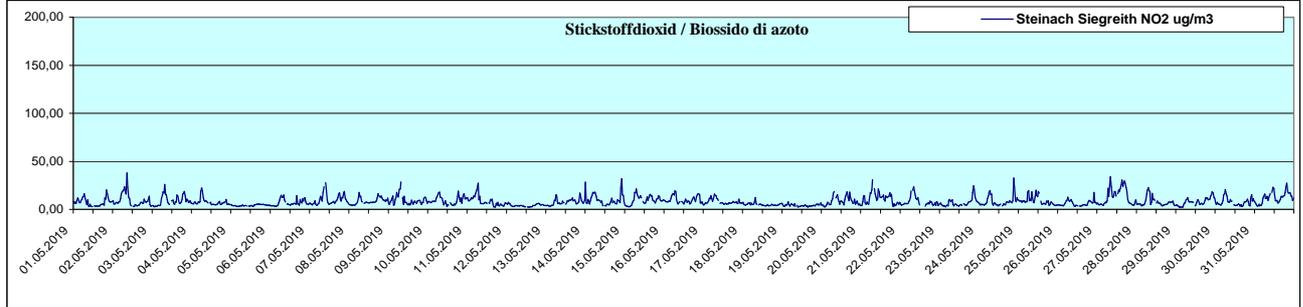
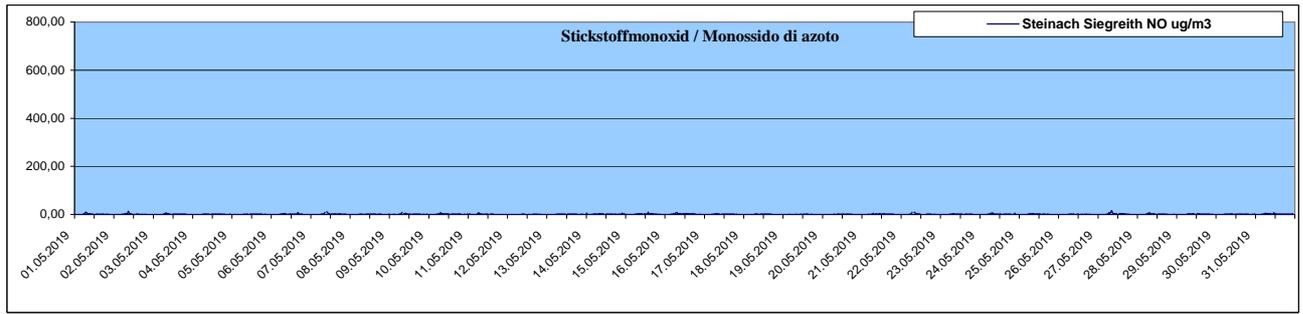
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	71,32	4,36	10,42	27,00	0		0	
Innsbruck Sillhöfe	80,10	3,55	12,33	30,21	0		0	
Steinach Siegreith	15,32	1,12	2,10	5,39	0		0	
Steinach Saxen	44,96	5,39	10,21	26,80	0		0	
Ampass	157,76	14,75	36,28	72,12	0		0	
Tulfes	44,74	2,36	7,66	19,93	0		0	

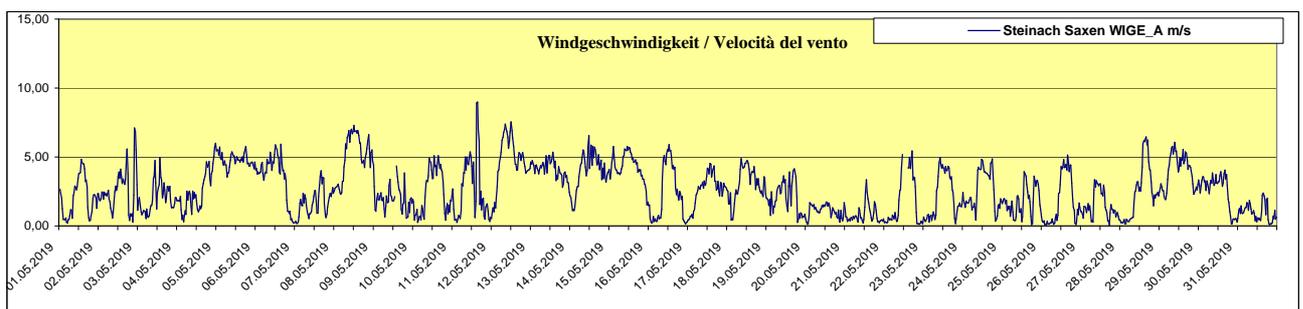
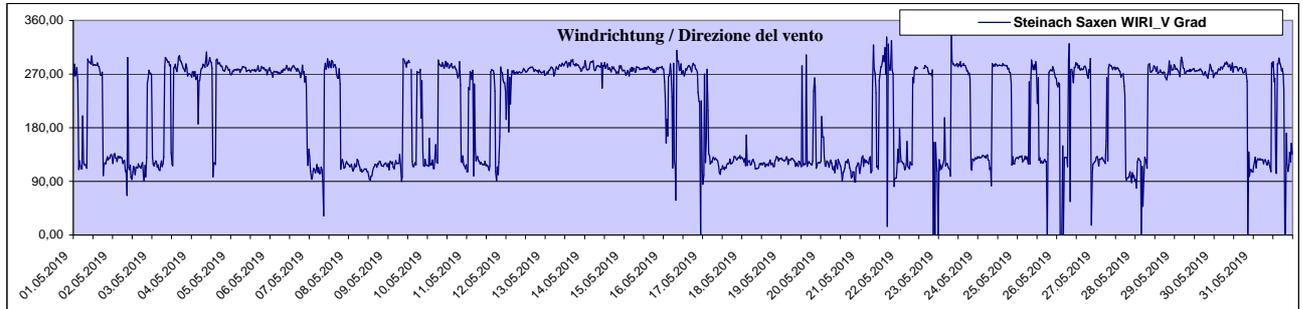
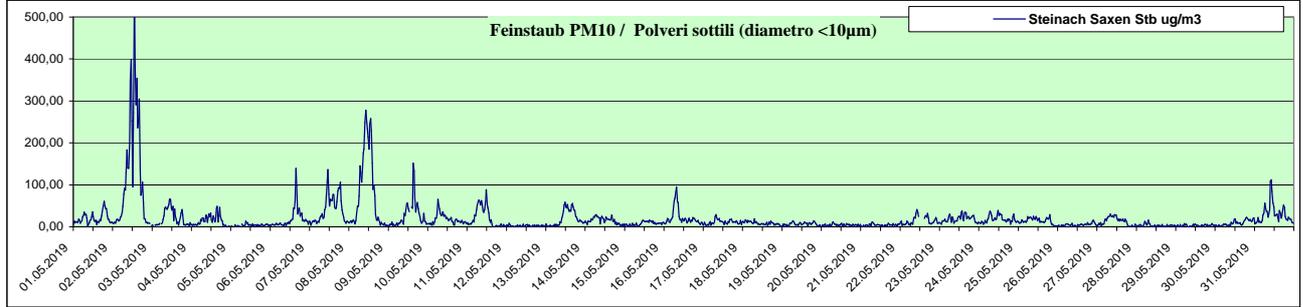
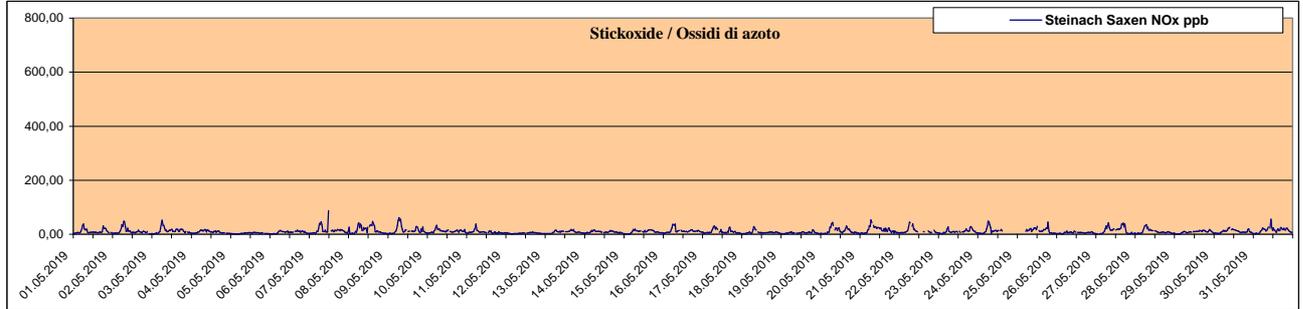
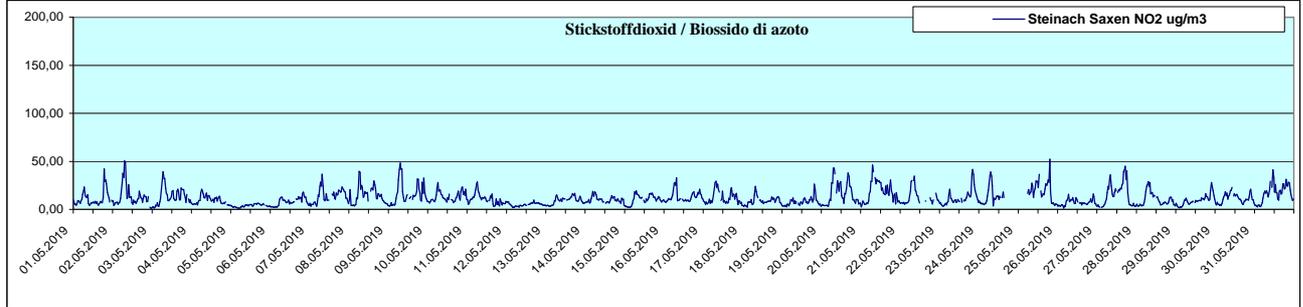
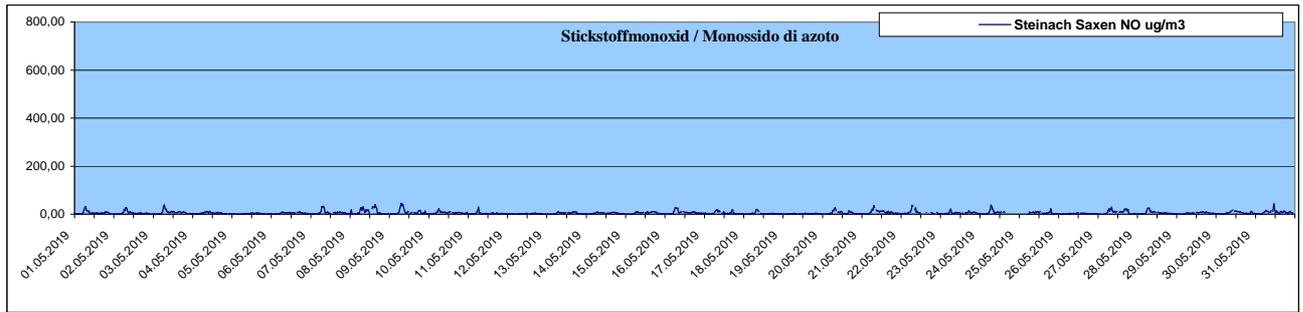
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	62,00	16,83	27,41	43,25	0		0	
Innsbruck Sillhöfe	69,70	19,01	32,70	50,62	0		0	
Steinach Siegreith	37,92	8,34	13,65	22,57	0		0	
Steinach Saxen	52,05	11,78	18,13	36,29	0		0	
Ampass	83,63	26,78	37,71	67,69	0		0	
Tulfes	46,54	10,45	18,08	35,13	0		0	

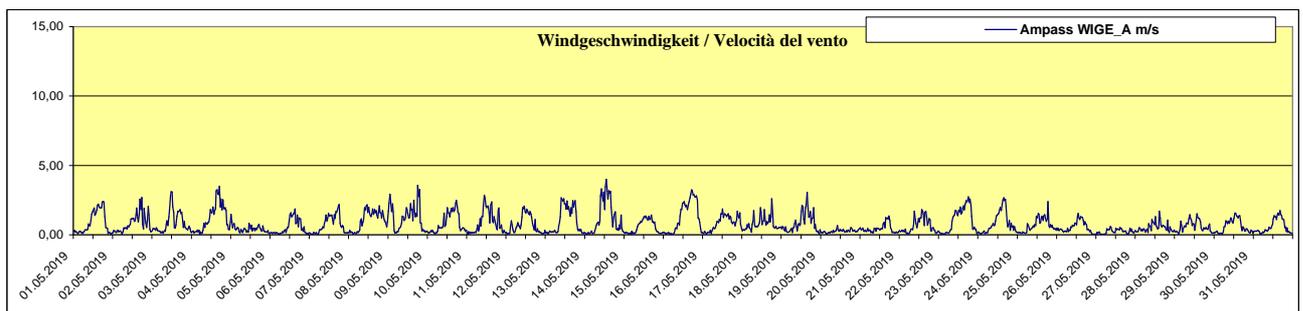
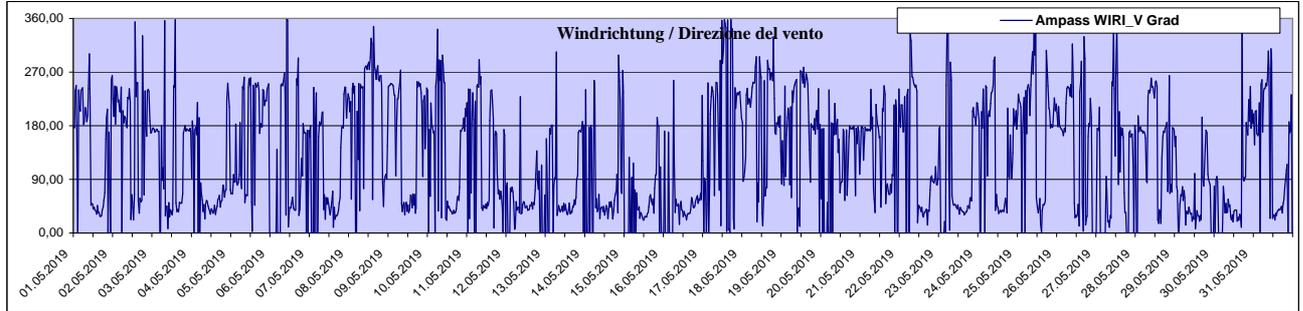
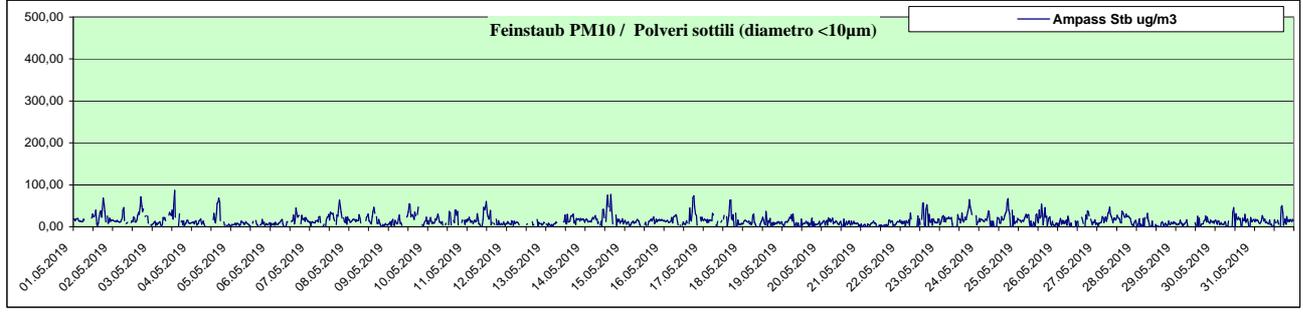
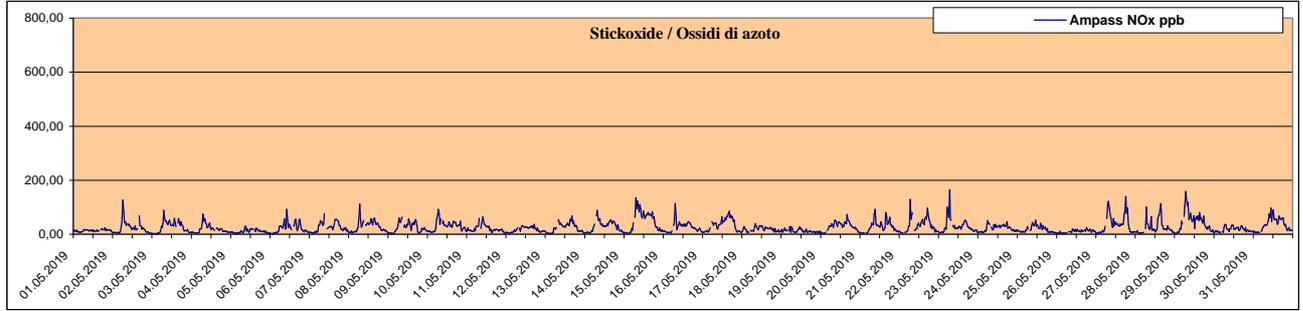
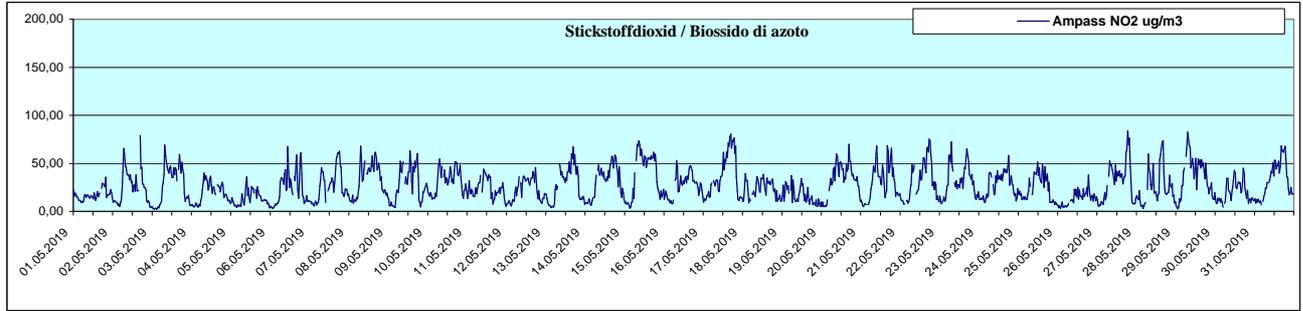
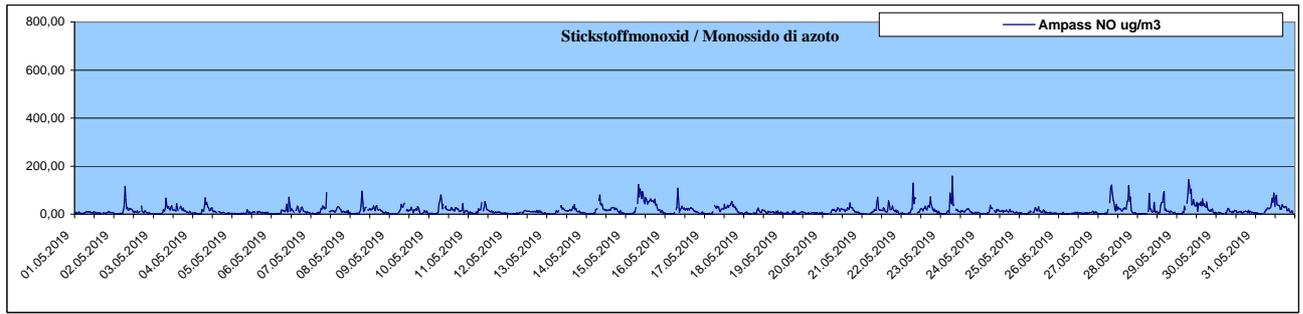
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	44,00	7,44	13,87	20,40	0		0	
Innsbruck Sillhöfe	119,20	6,87	13,58	18,50	0		0	
Steinach Siegreith	33,70	5,37	10,83	17,70	0		0	
Steinach Saxen	559,90	19,91	119,16	139,10	7		6	
Ampass	86,60	14,24	21,71	51,10	0		0	
Tulfes	25,40	6,25	11,06	17,50	0		0	

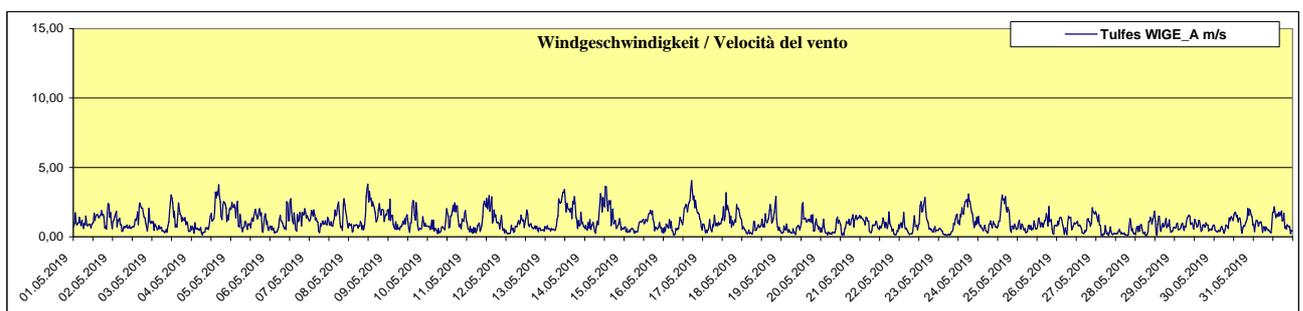
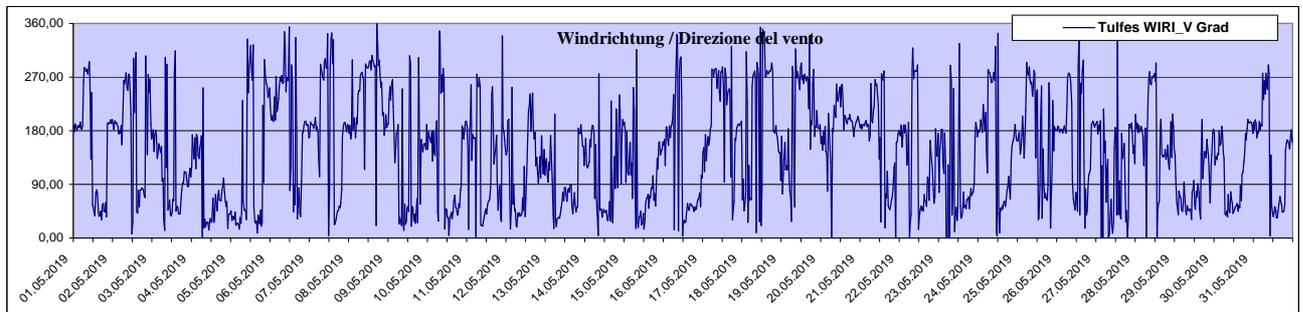
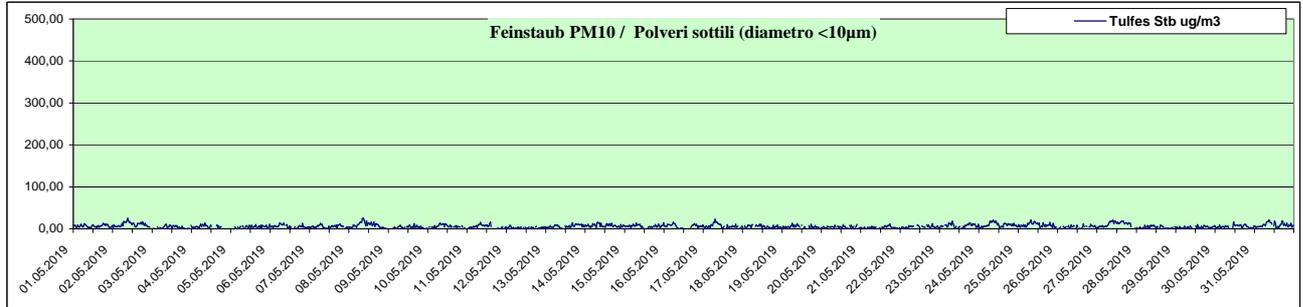
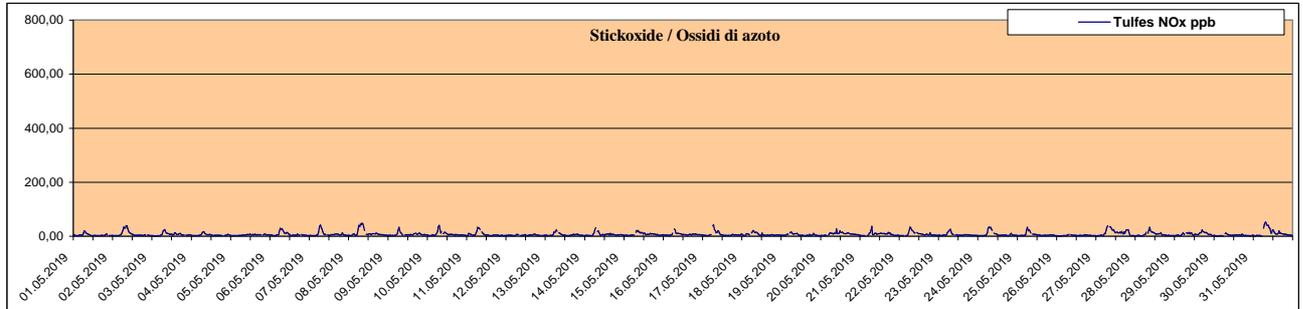
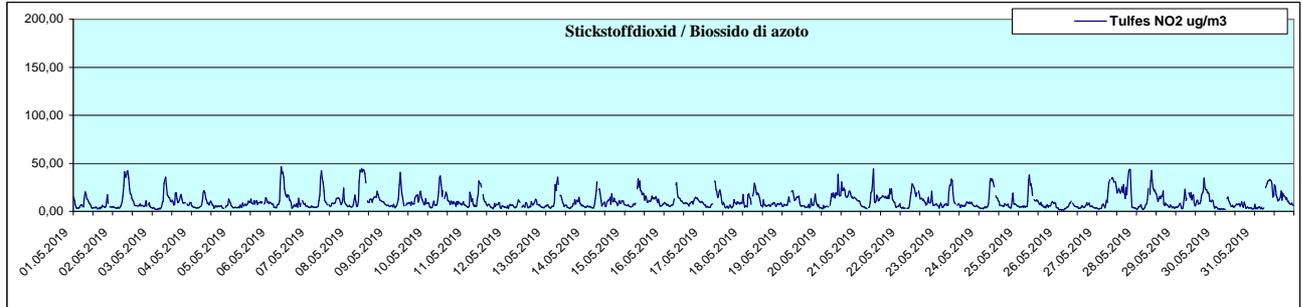
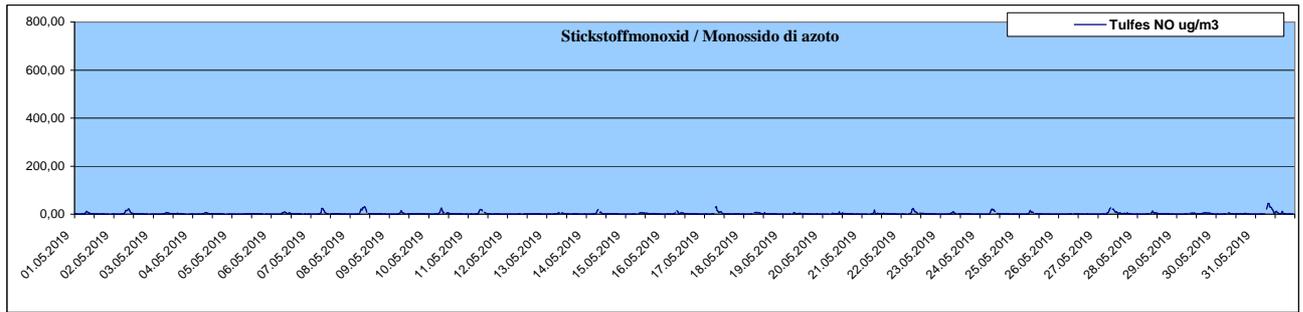




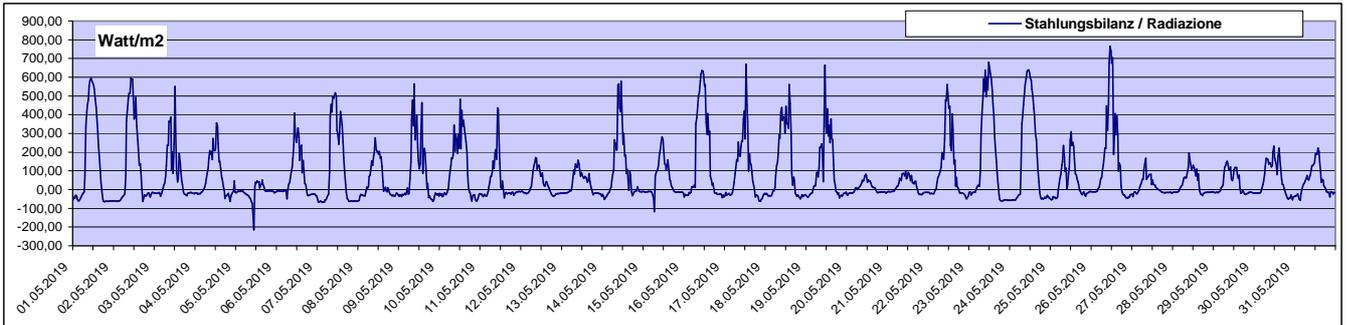
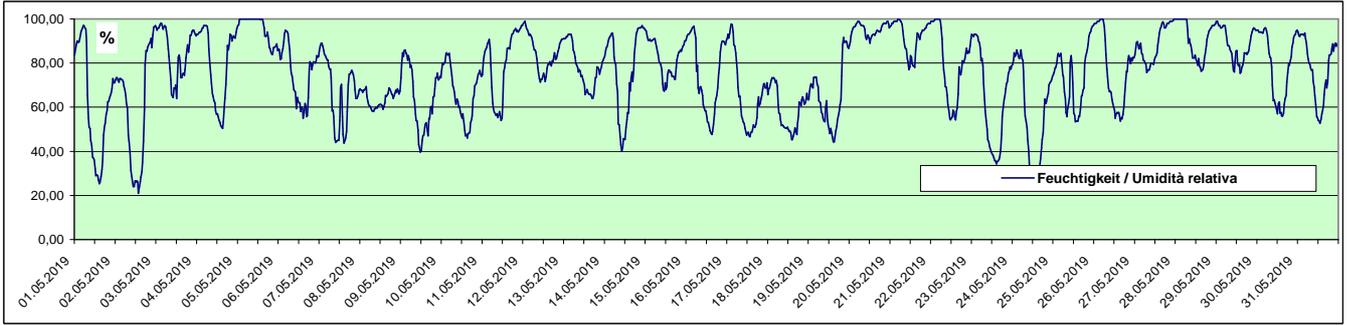
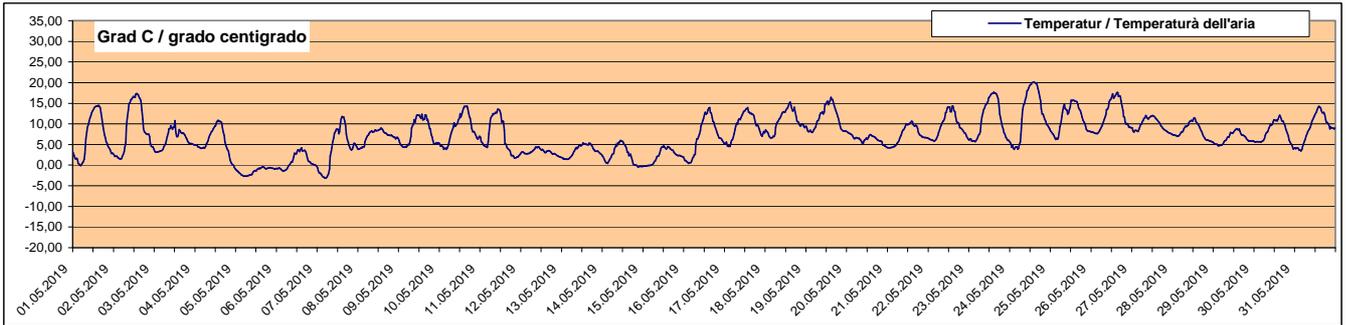
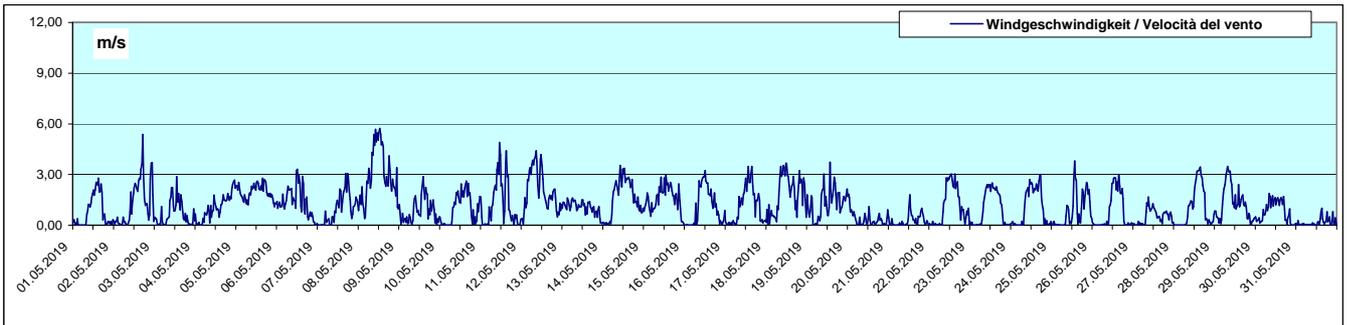
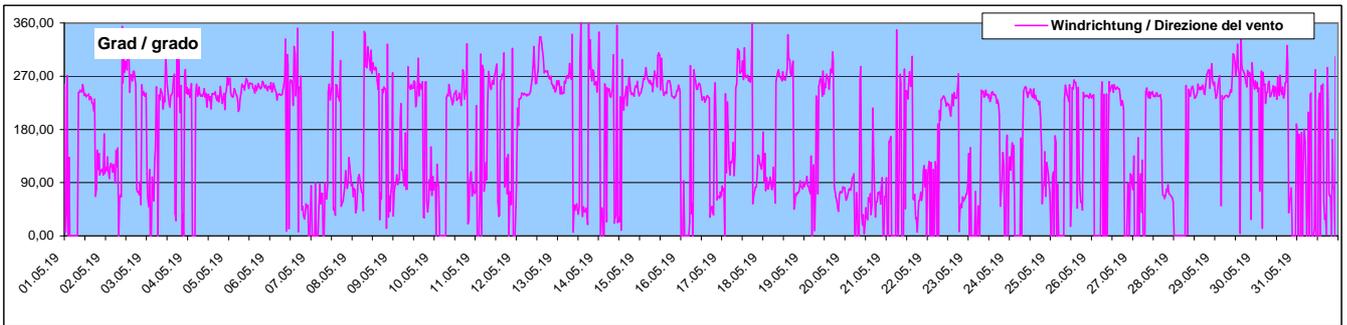








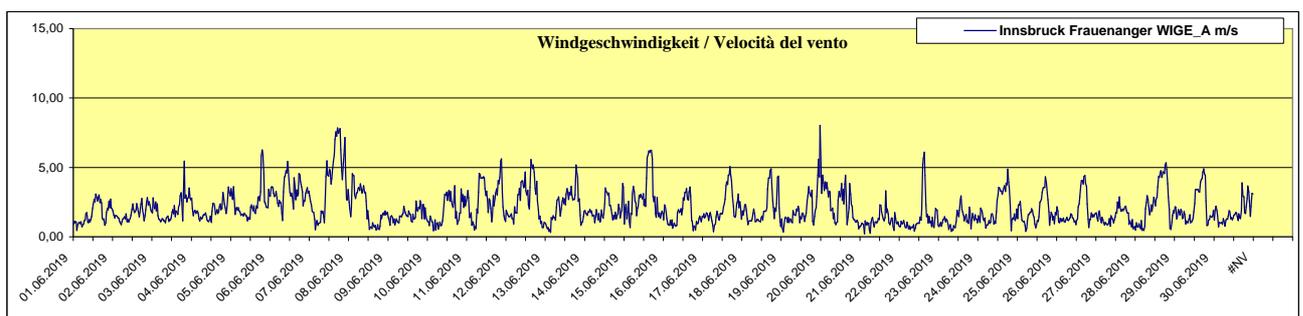
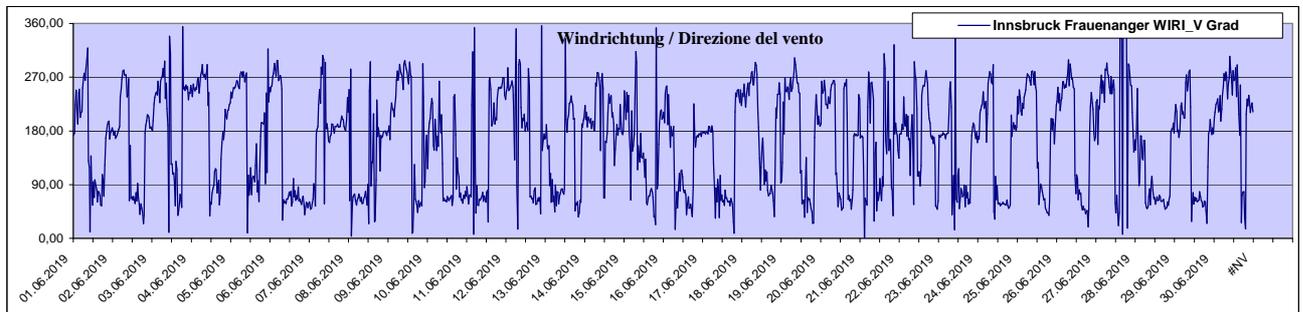
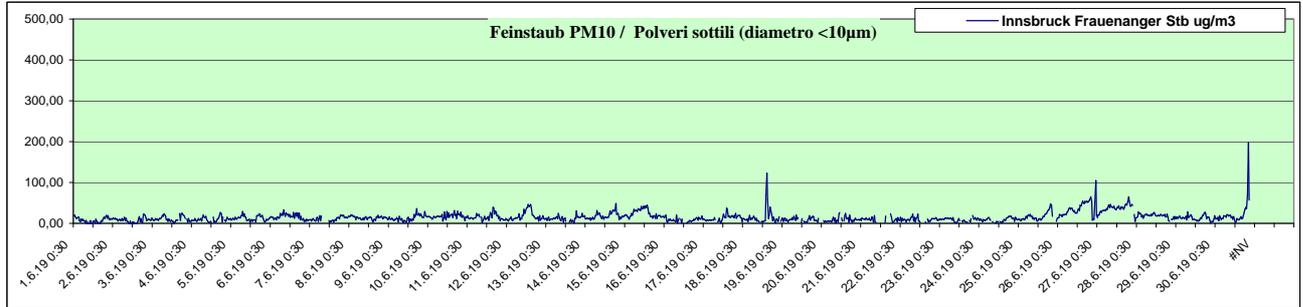
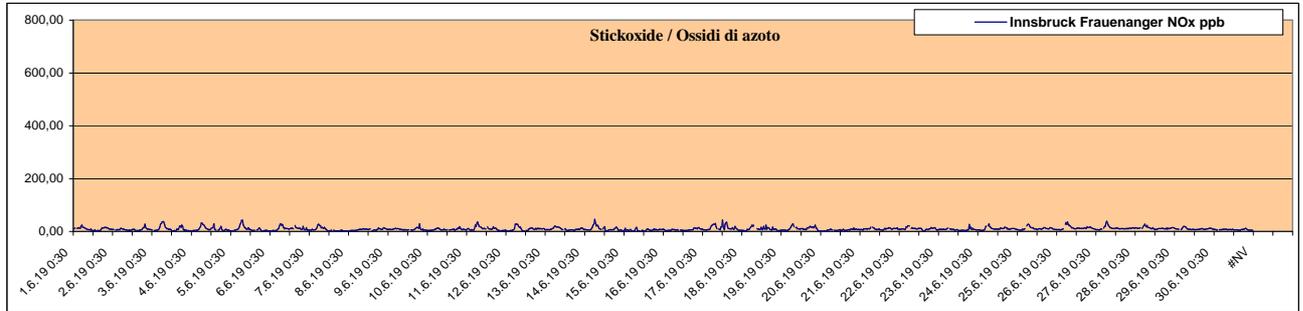
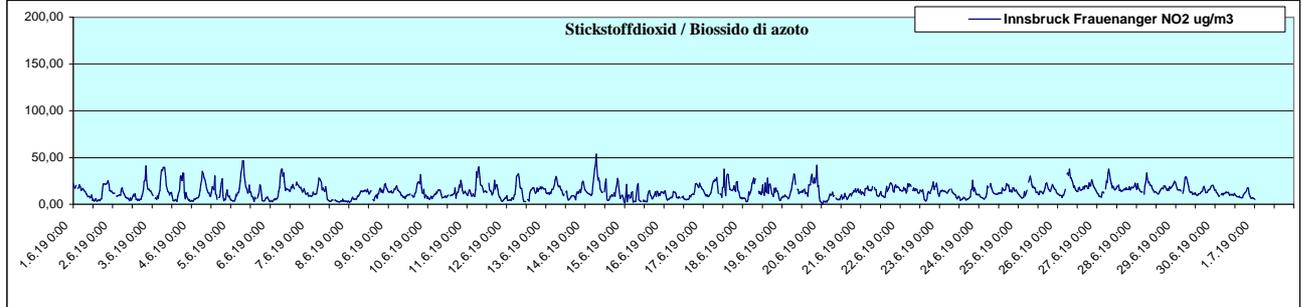
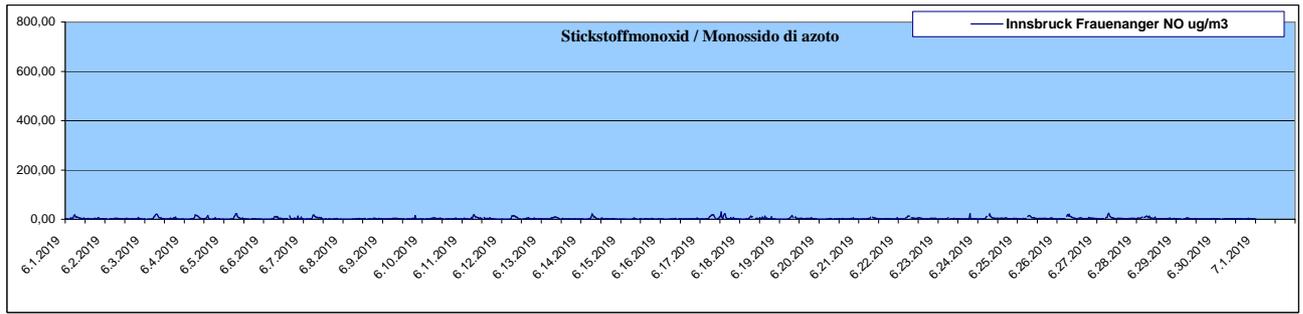
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Mai 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal maggio 2019

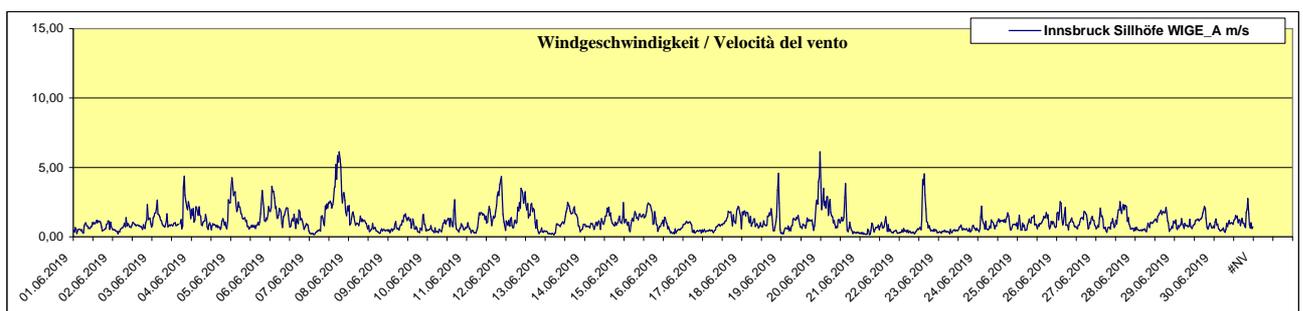
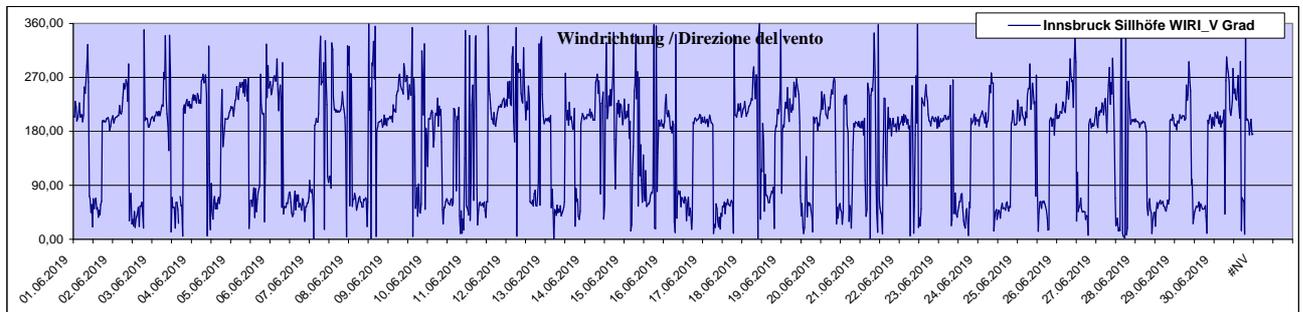
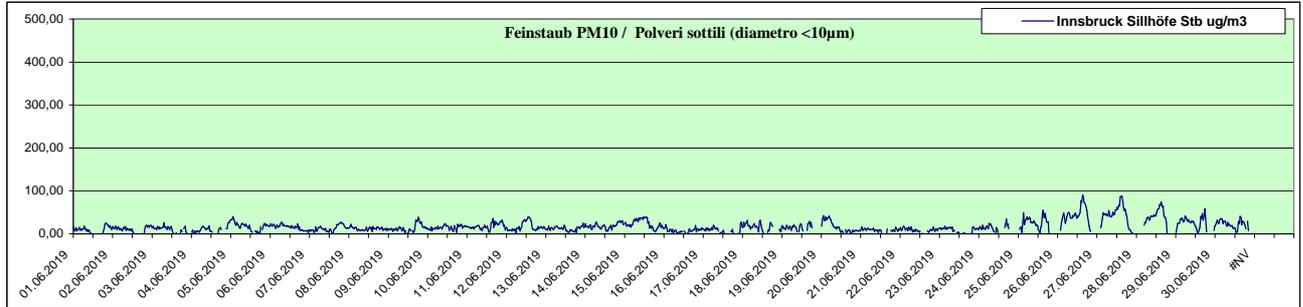
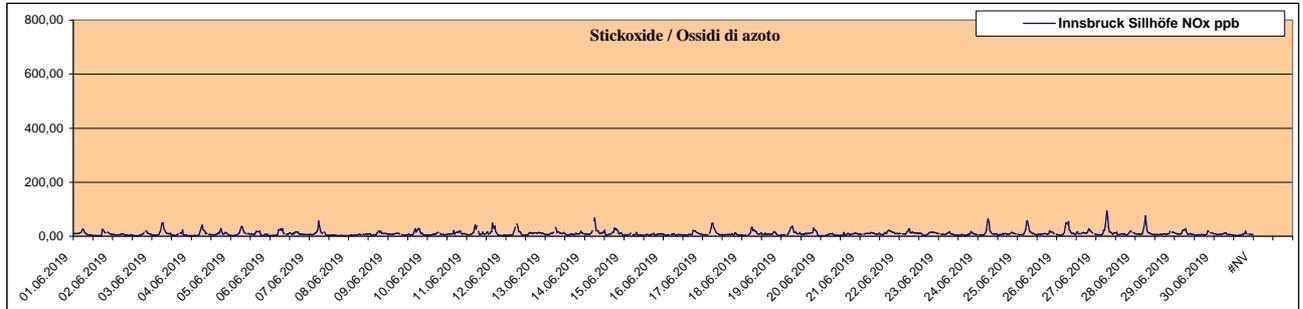
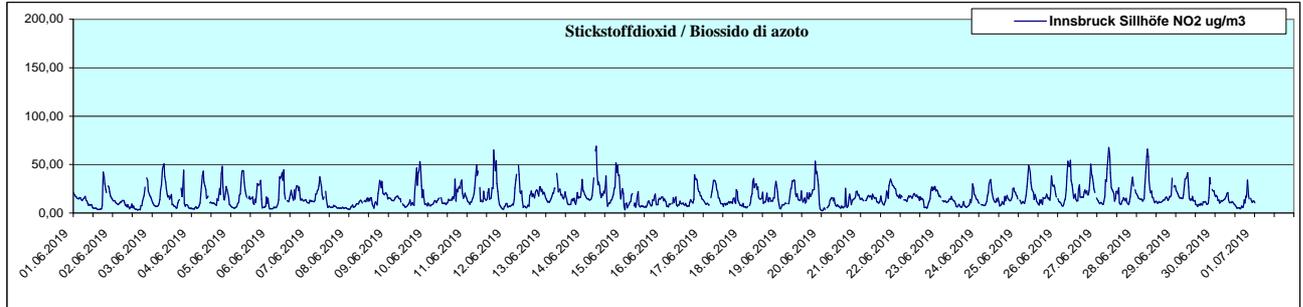
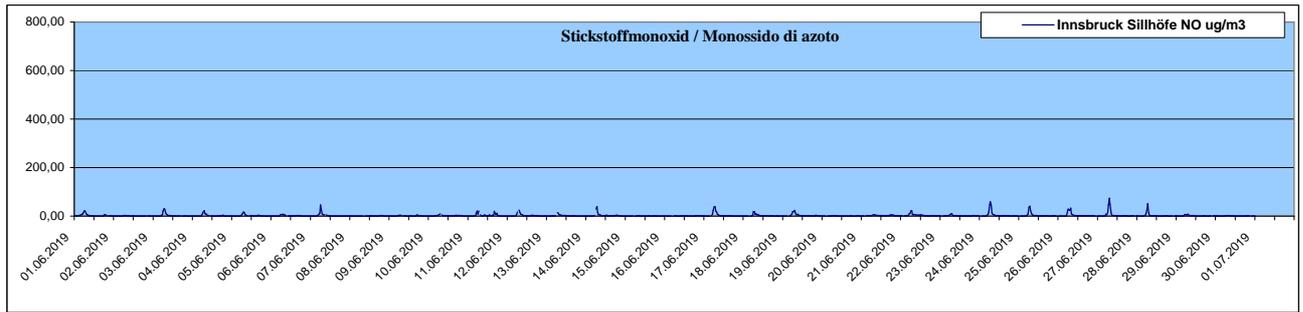


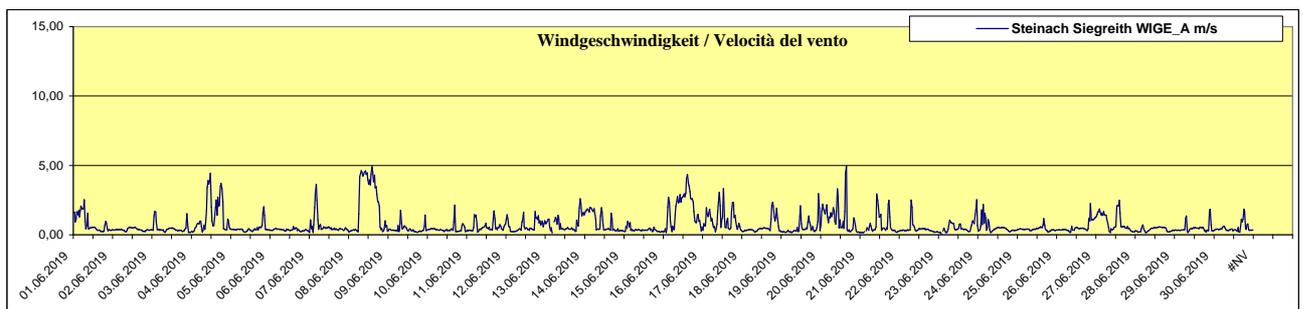
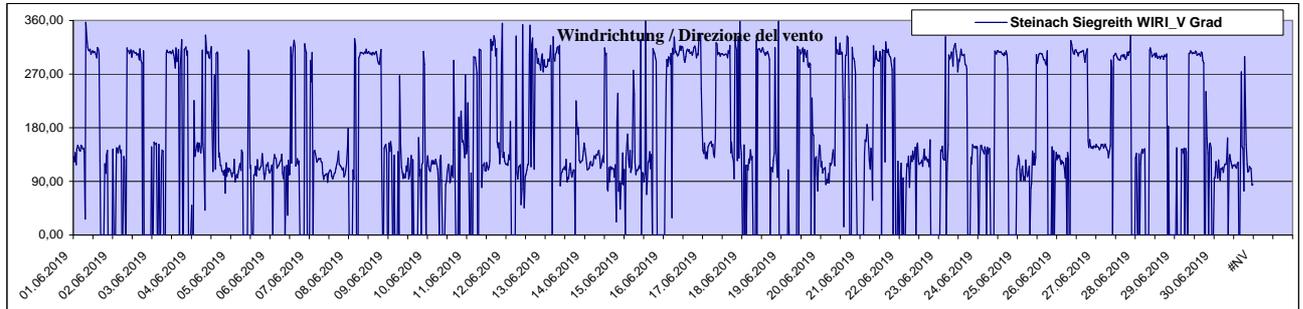
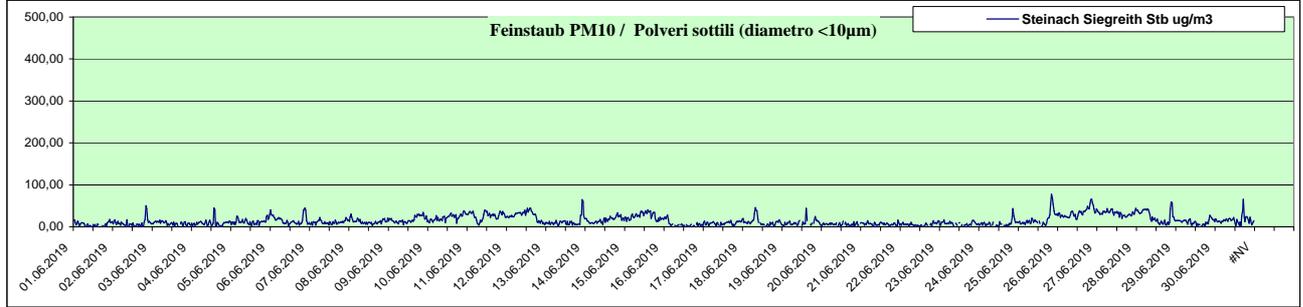
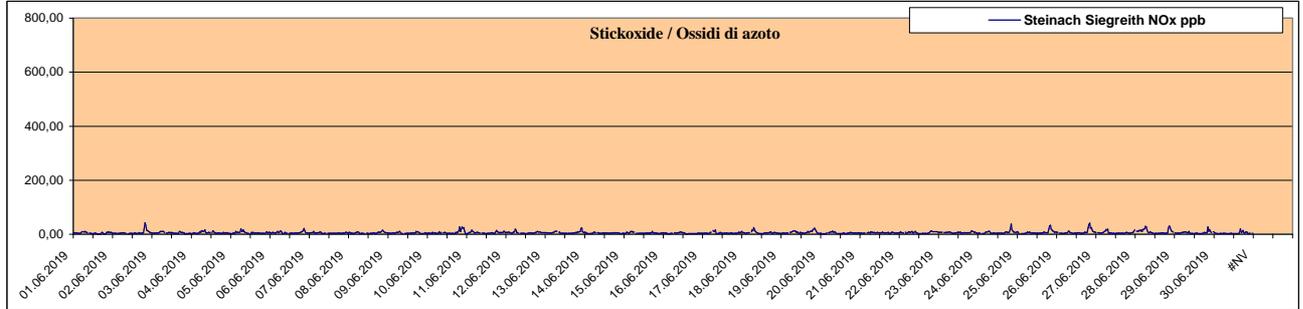
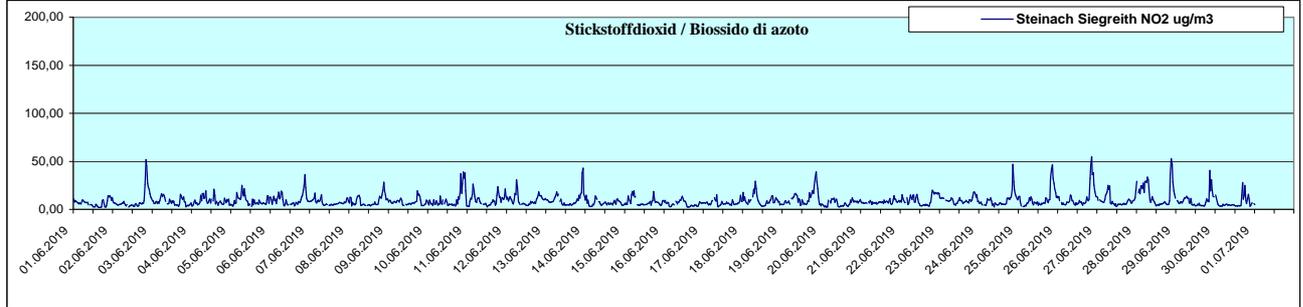
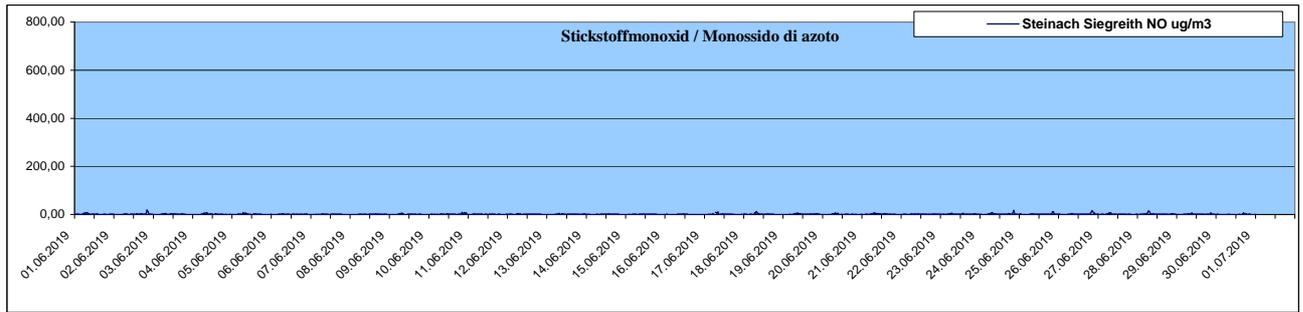
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	29,82	3,13	6,31	15,10	0		0	
Innsbruck Sillhöfe	73,30	2,34	5,43	22,74	0		0	
Steinach Siegreith	18,51	1,37	2,24	6,35	0		0	
Steinach Saxen	84,20	5,41	10,14	28,39	0		0	
Ampass	87,03	10,45	16,98	39,02	0		0	
Tulfes	35,45	1,94	3,65	13,45	0		0	

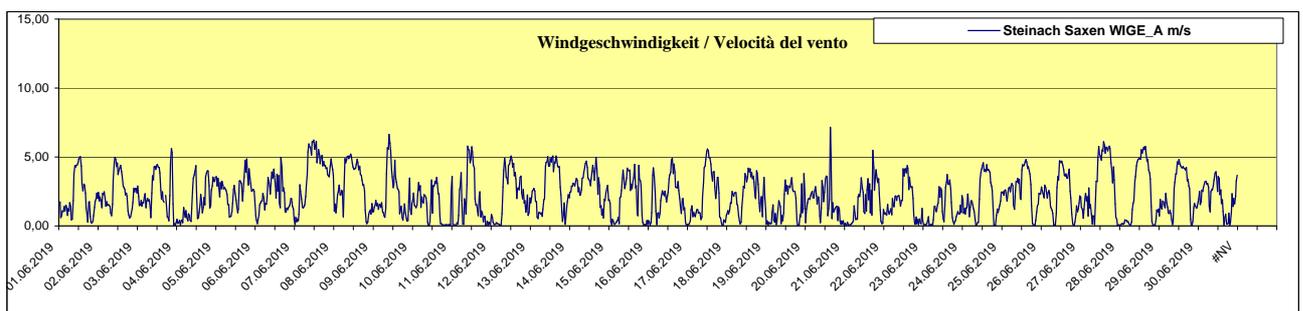
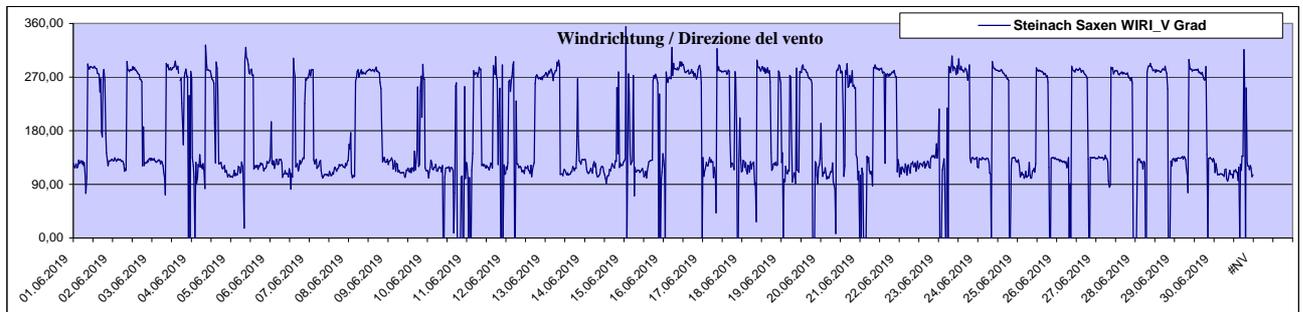
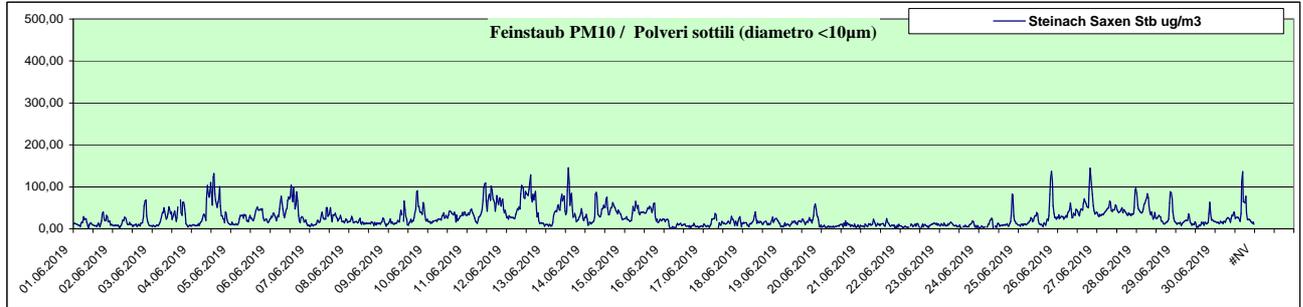
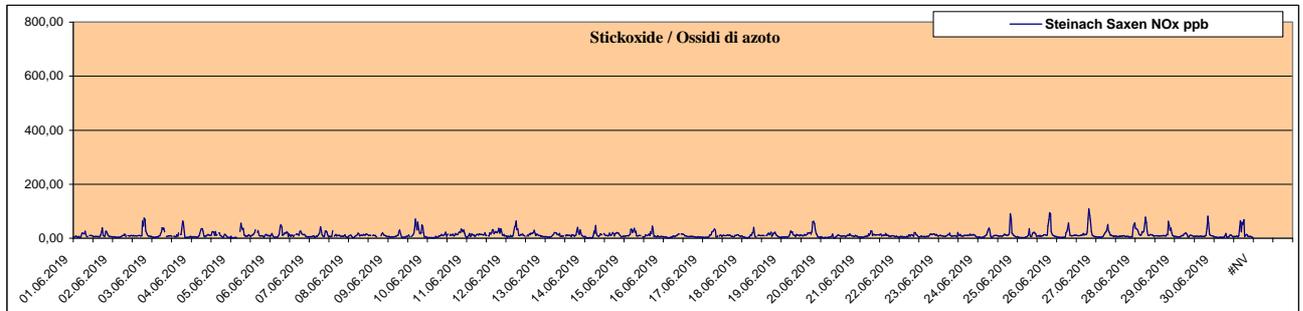
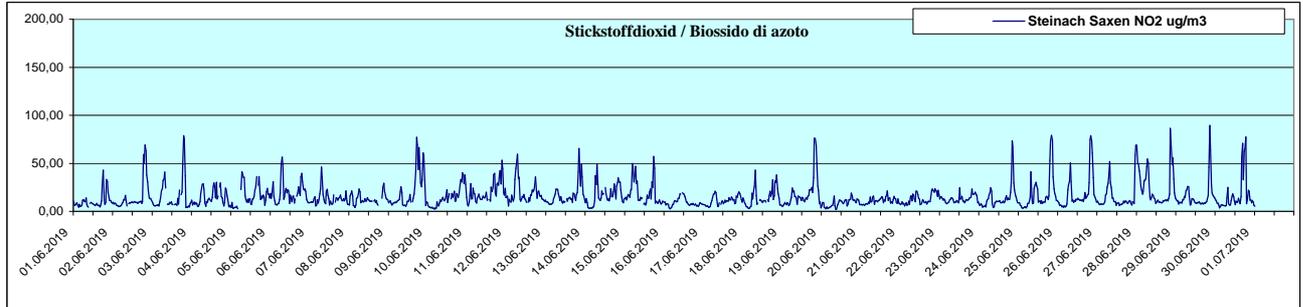
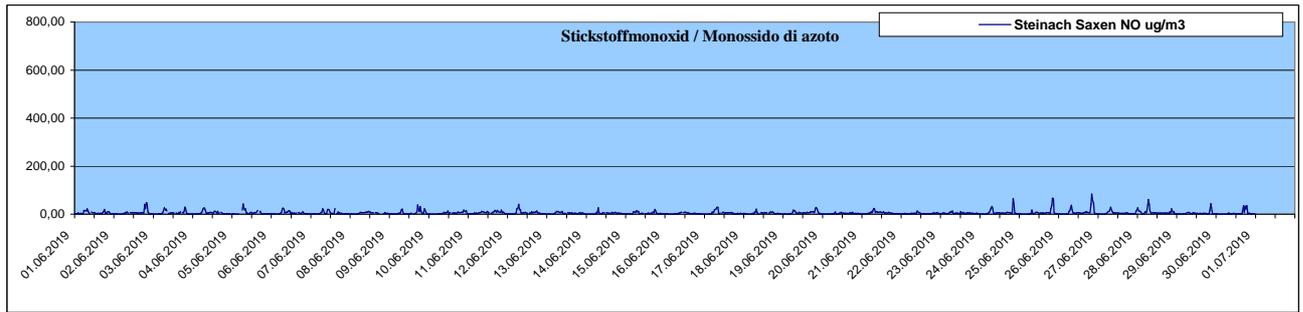
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	53,53	13,54	18,39	33,04	0		0	
Innsbruck Sillhöfe	68,83	16,19	23,95	46,57	0		0	
Steinach Siegreith	54,76	9,08	15,63	30,52	0		0	
Steinach Saxen	89,27	15,62	24,61	62,52	0		0	
Ampass	107,62	27,10	43,58	70,35	2		0	
Tulfes	49,18	9,89	14,32	31,45	0		0	

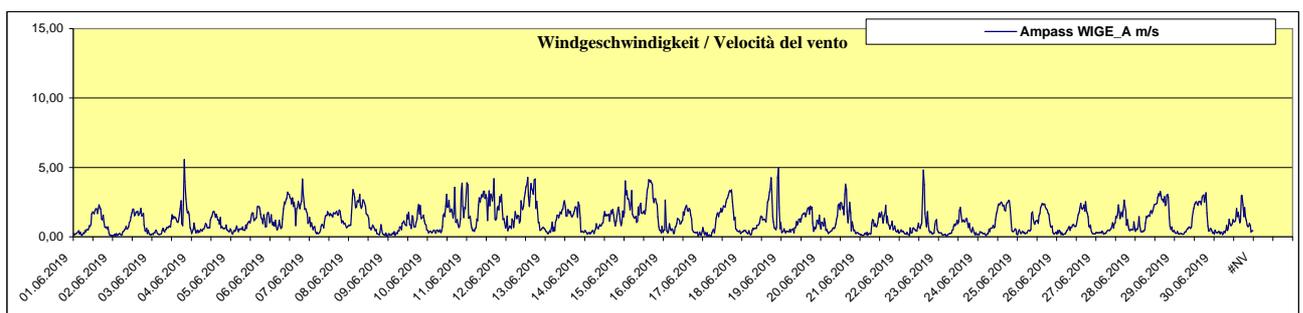
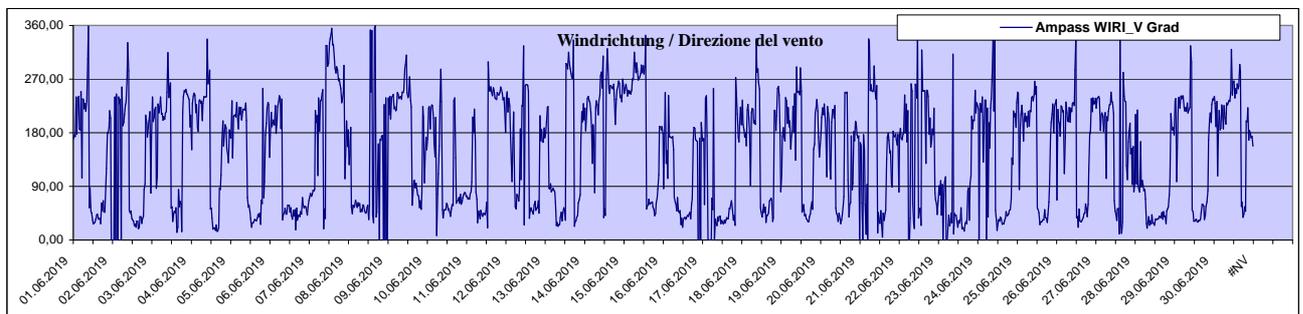
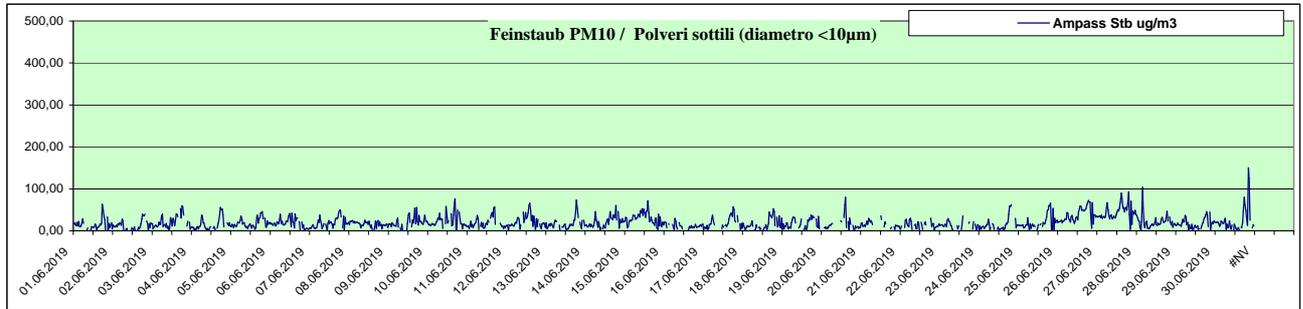
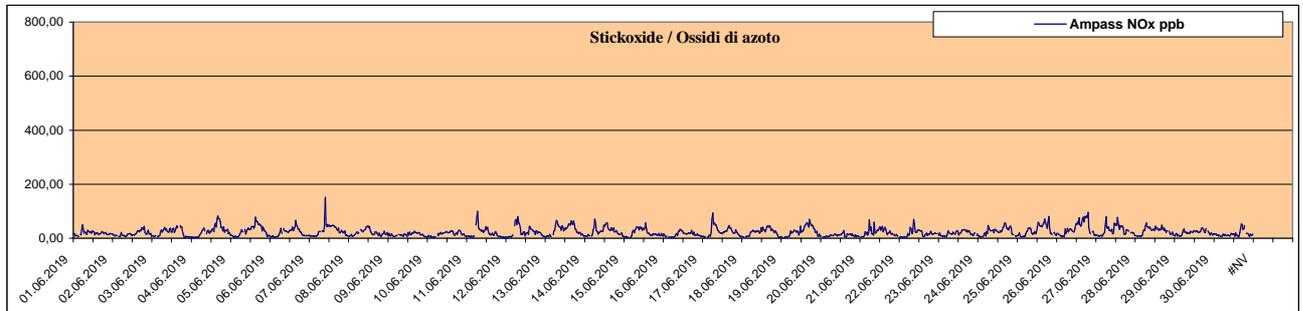
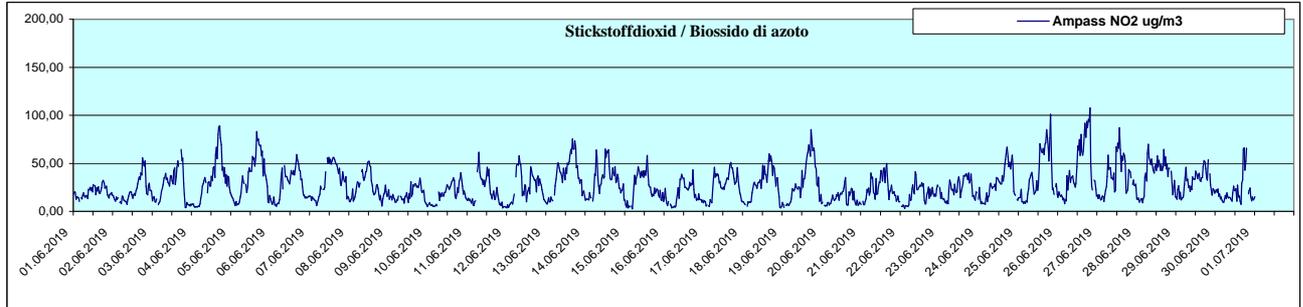
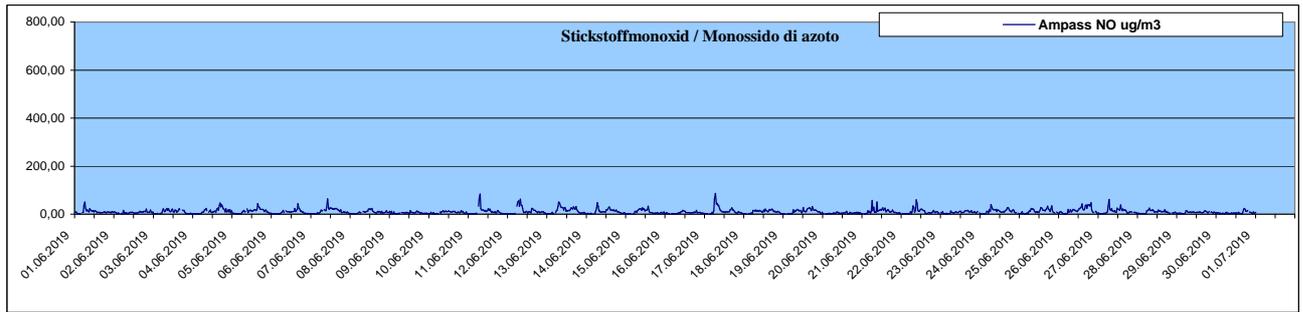
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	197,40	14,88	36,30	46,20	0		0	
Innsbruck Sillhöfe	90,50	17,48	44,21	55,70	0		0	
Steinach Siegreith	77,30	14,75	34,17	42,80	0		0	
Steinach Saxen	145,30	26,45	54,04	93,20	0		0	
Ampass	150,30	19,89	44,25	61,40	0		0	
Tulfes	112,40	12,78	35,12	40,80	0		0	

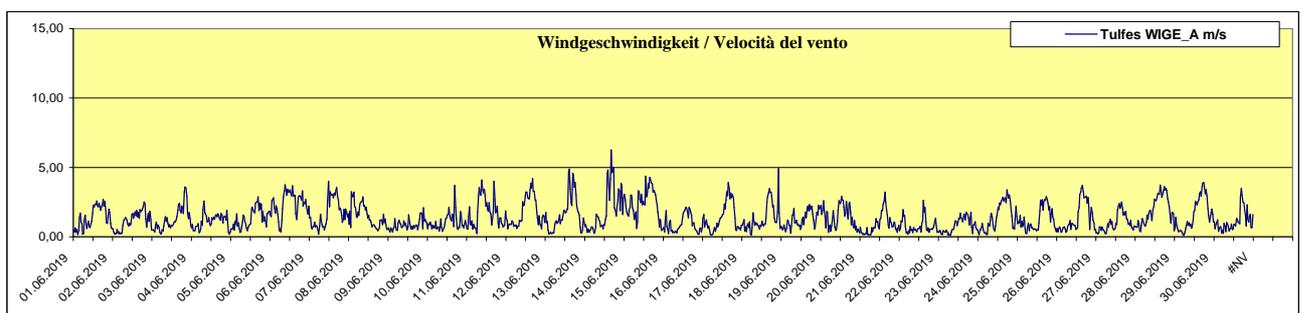
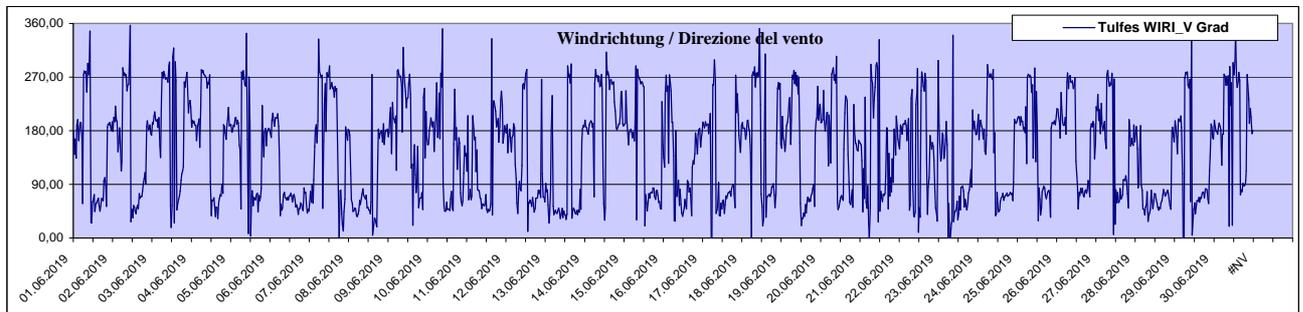
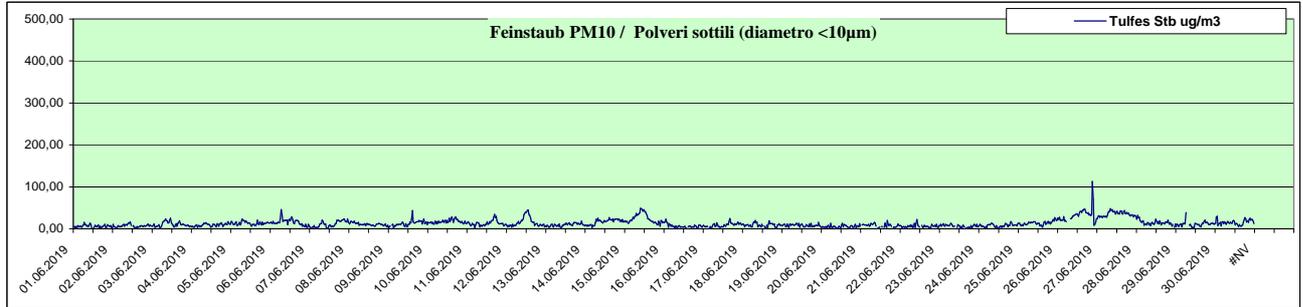
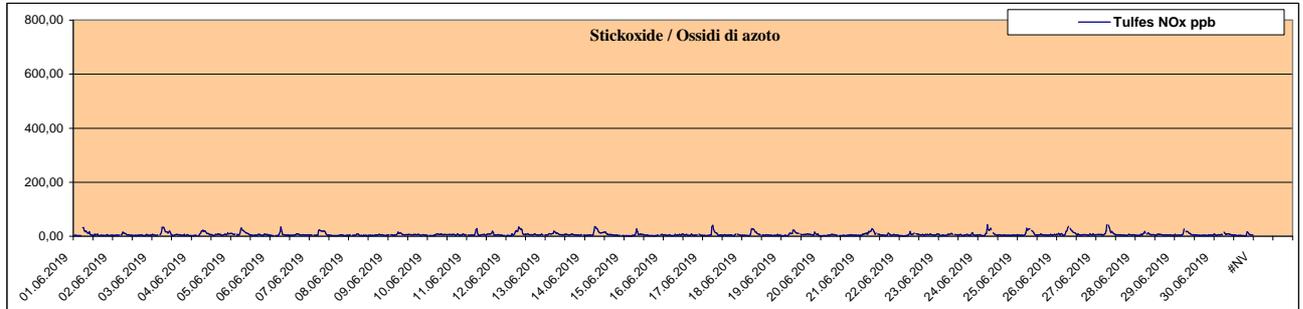
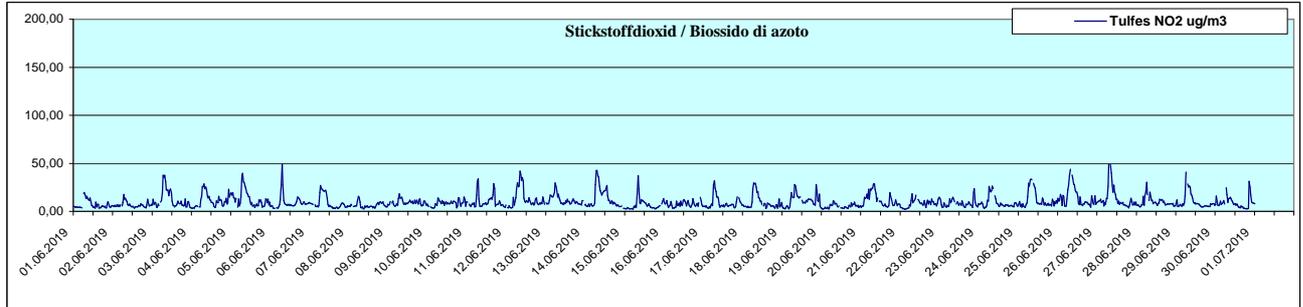
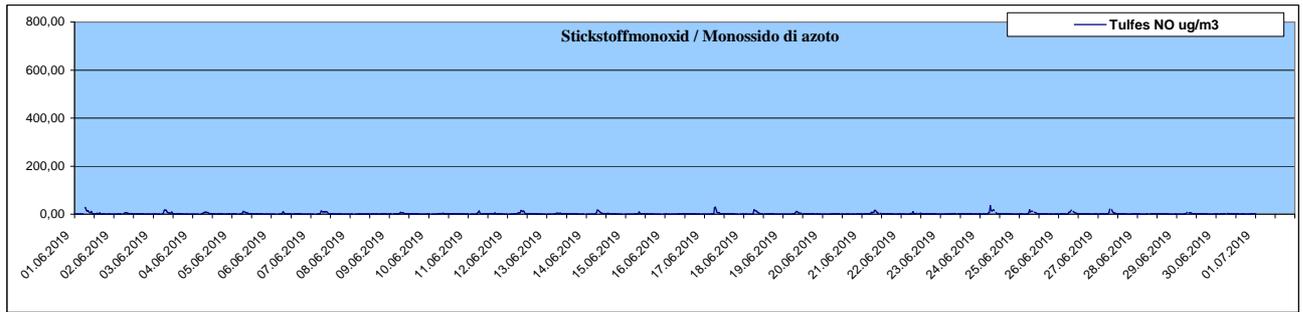




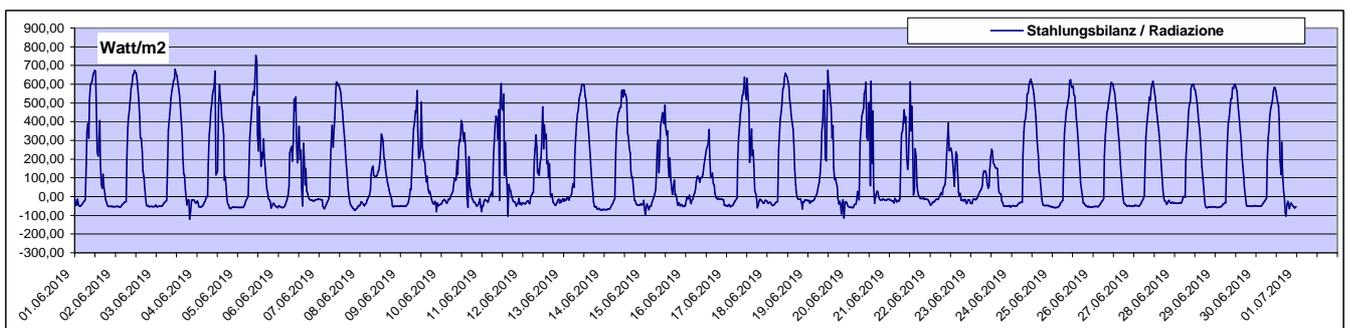
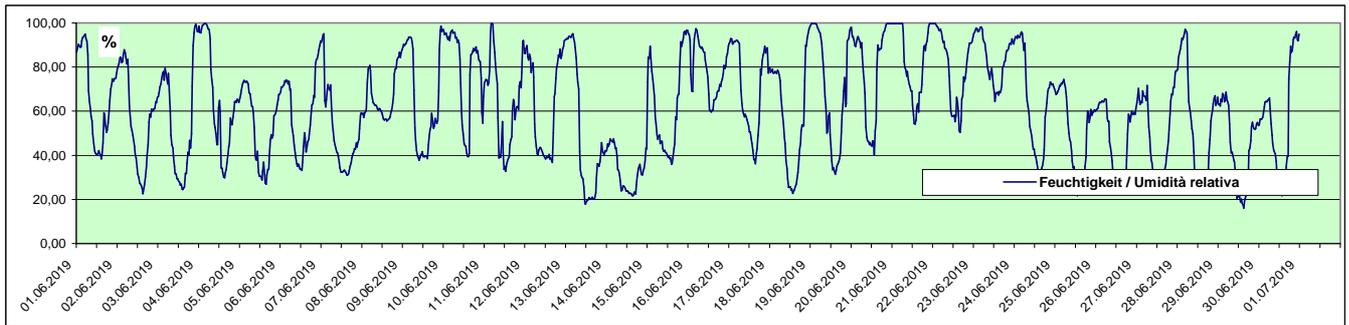
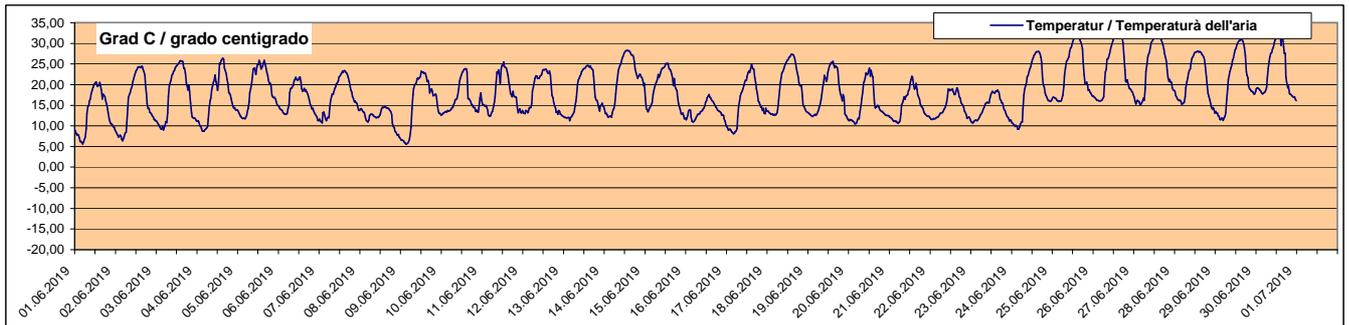
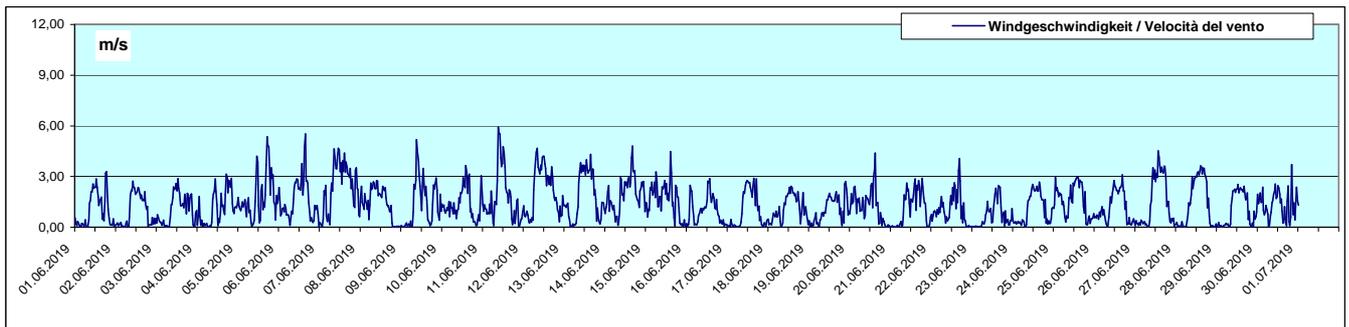
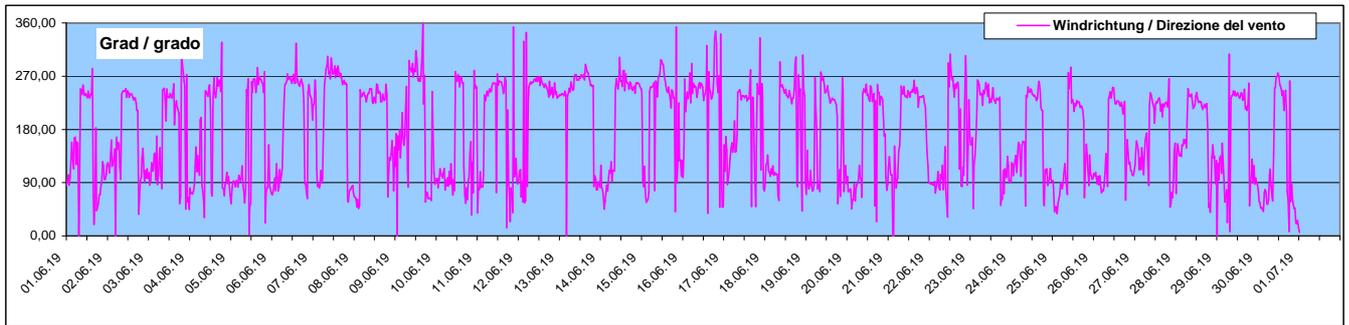








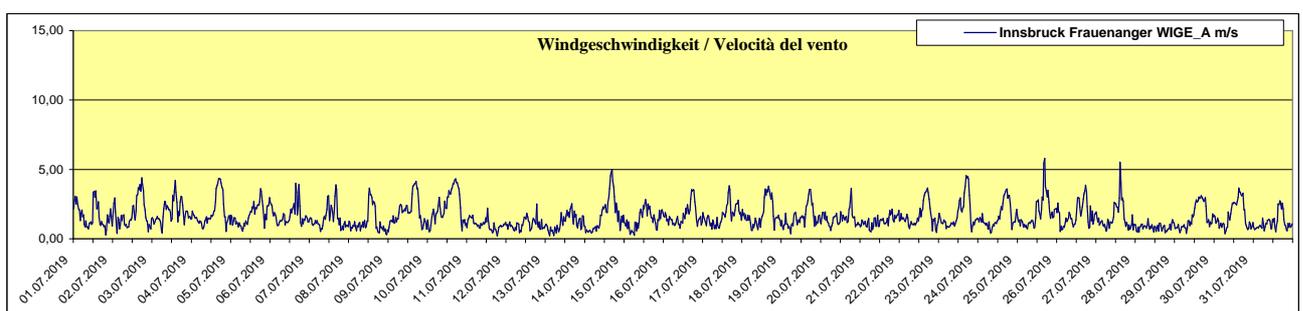
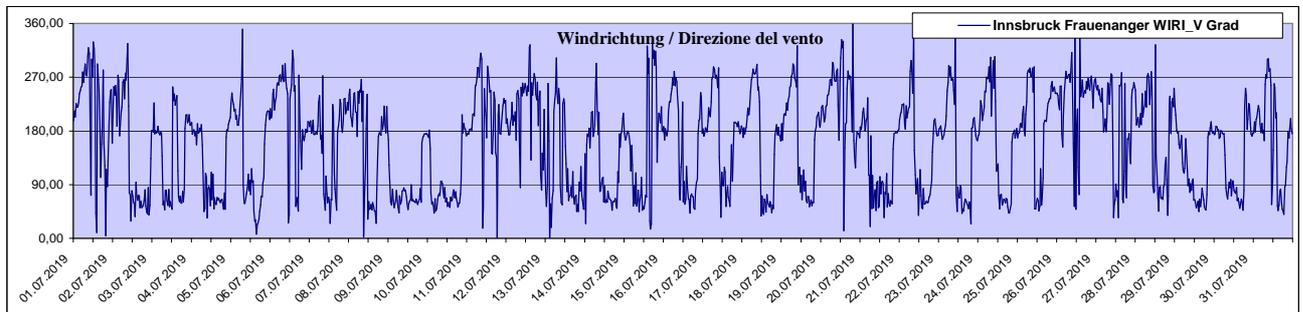
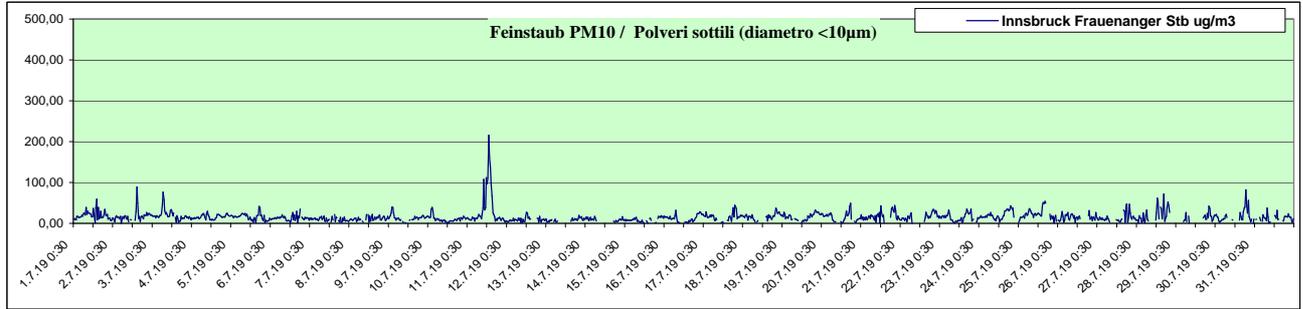
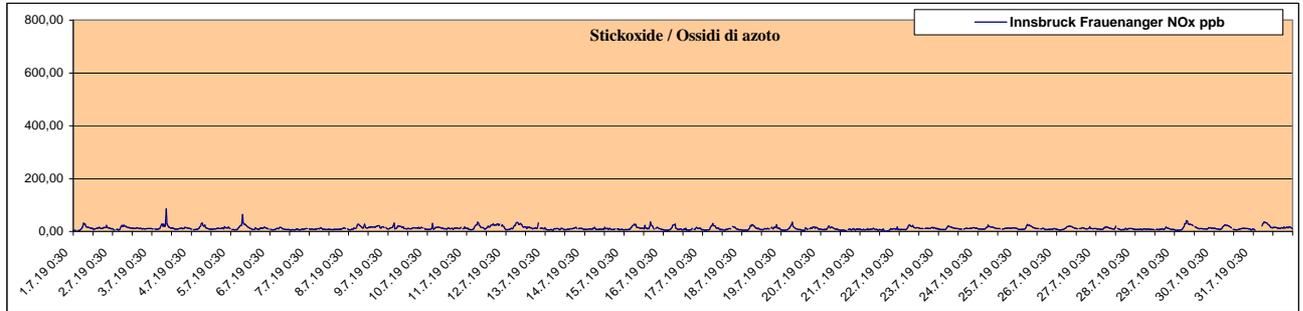
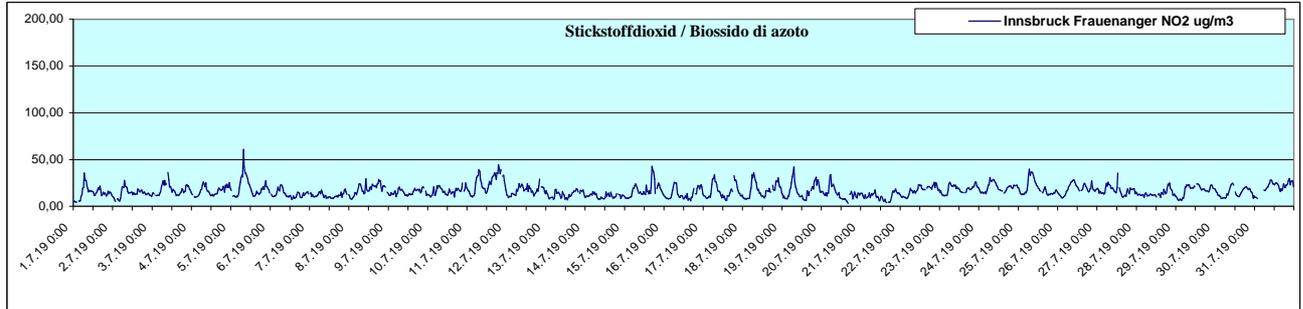
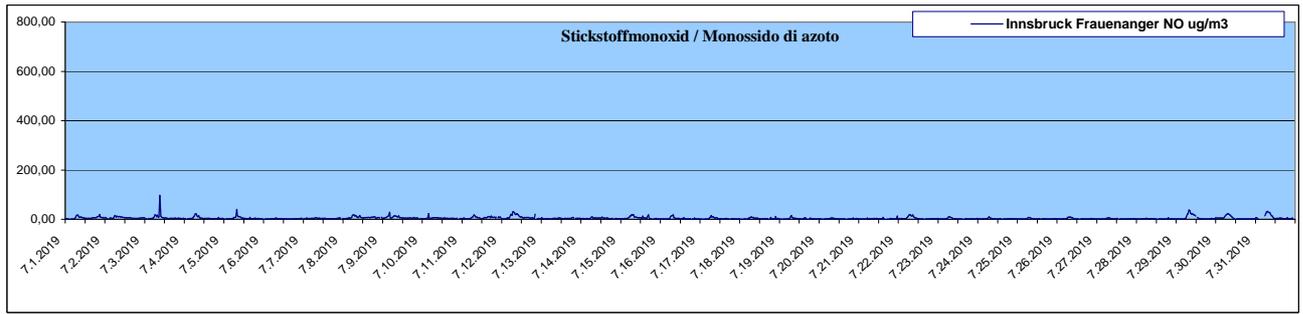
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Juni 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal giugno 2019

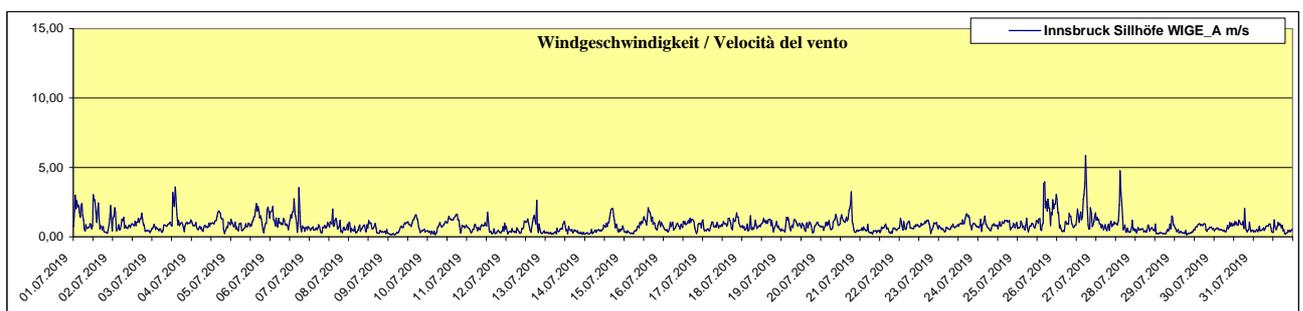
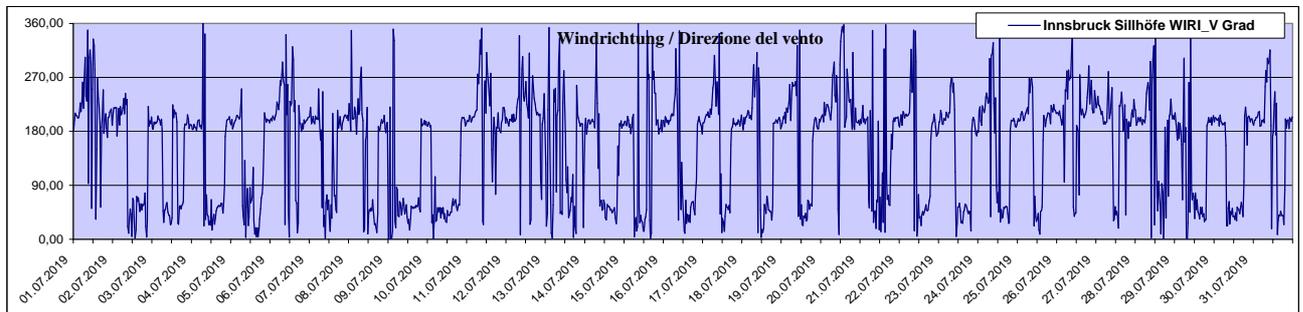
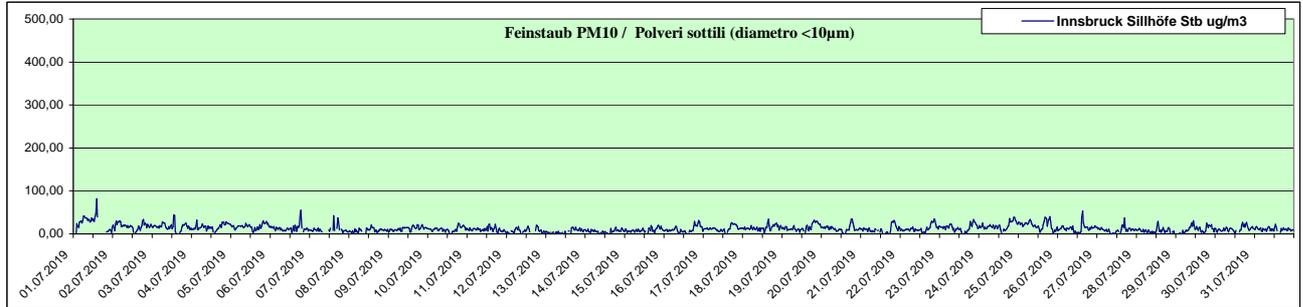
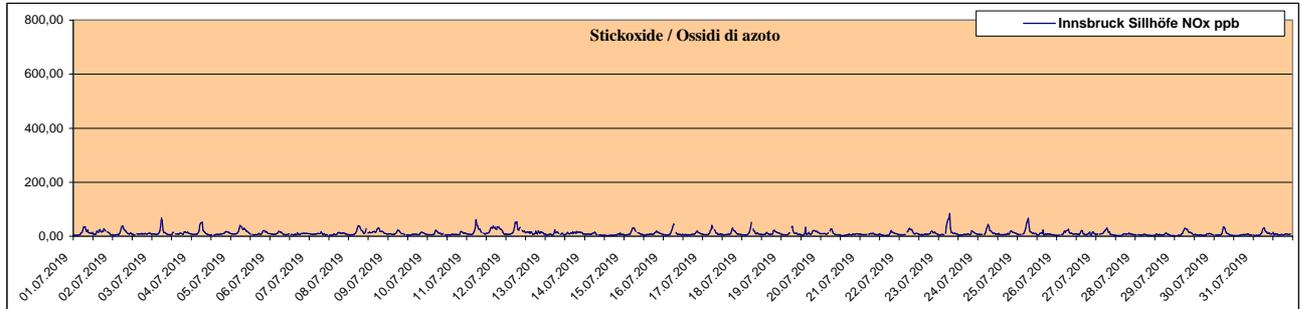
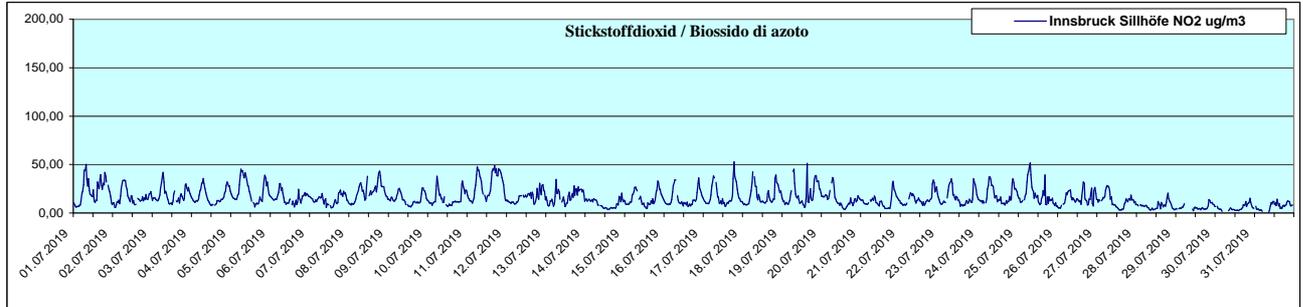
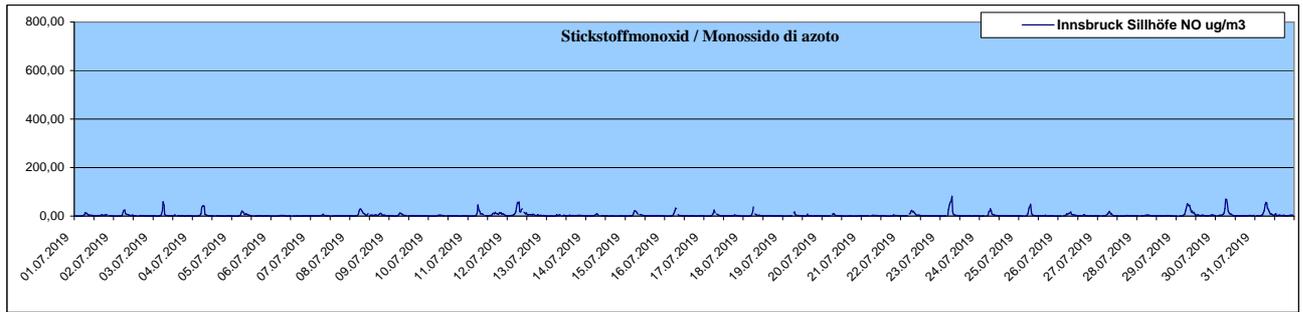


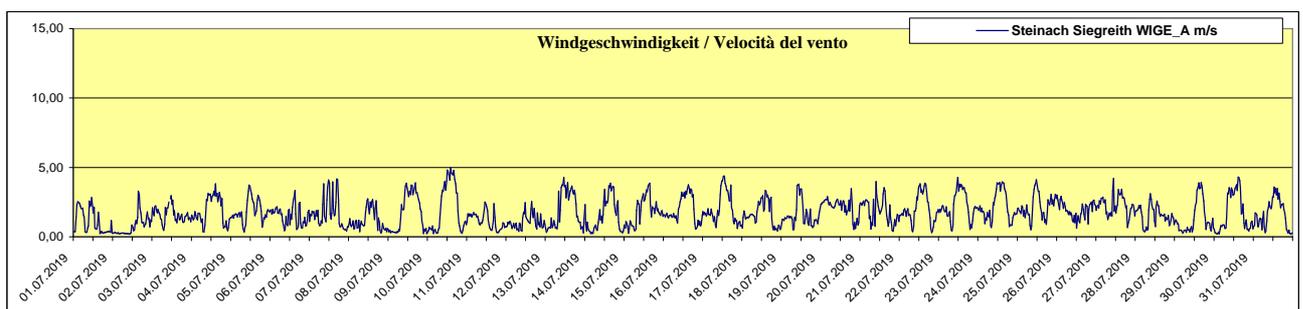
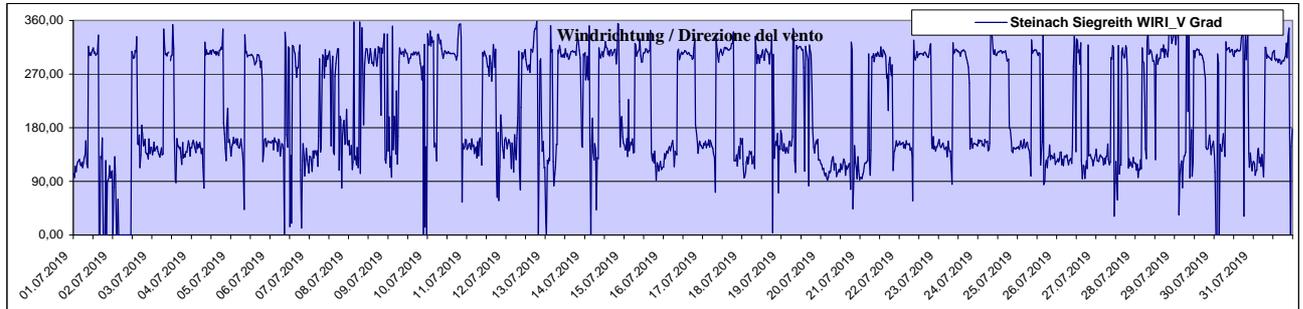
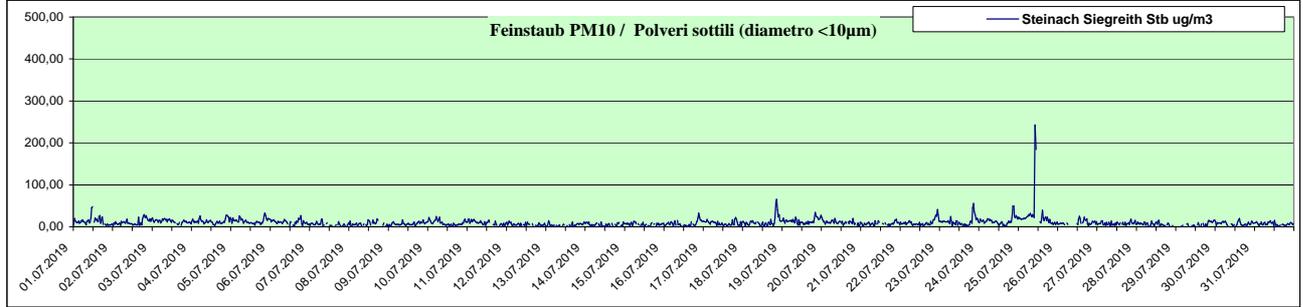
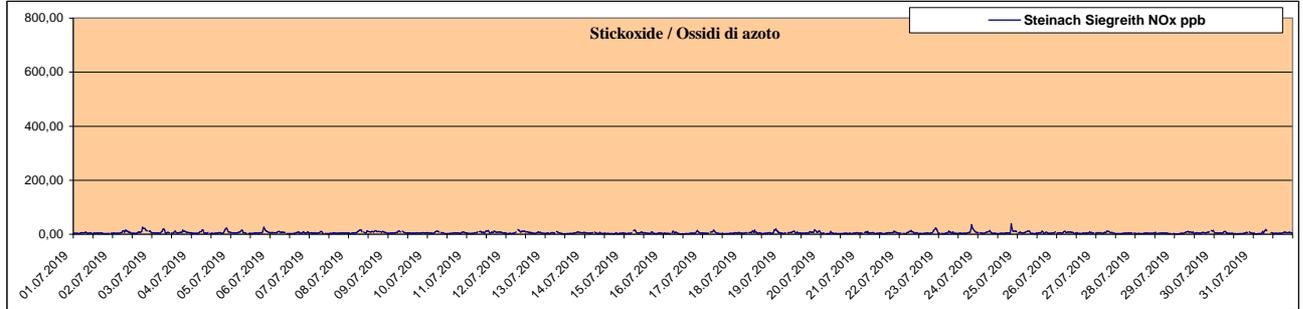
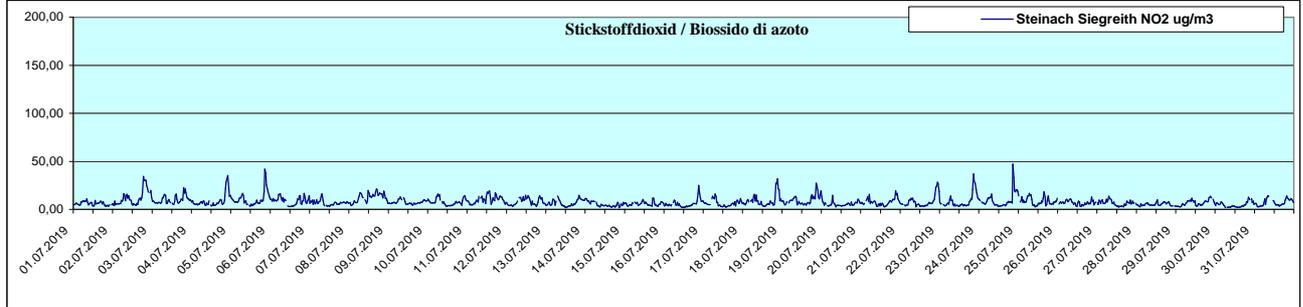
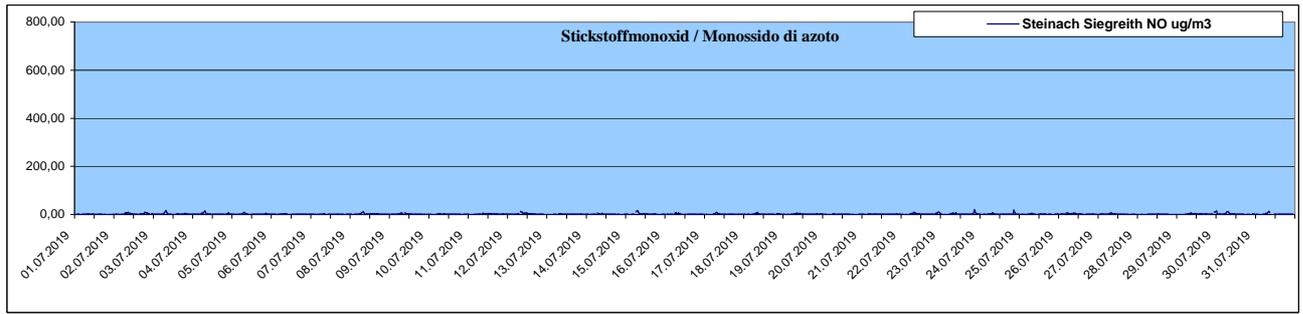
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	97,09	4,48	9,24	20,16	0		0	
Innsbruck Sillhöfe	81,91	3,91	10,50	33,47	0		0	
Steinach Siegreith	20,14	1,78	2,94	8,76	0		0	
Steinach Saxen	110,44	6,17	10,60	34,37	0		0	
Ampass	142,09	12,38	31,23	60,64	0		0	
Tulfes	30,87	2,52	6,31	16,41	0		0	

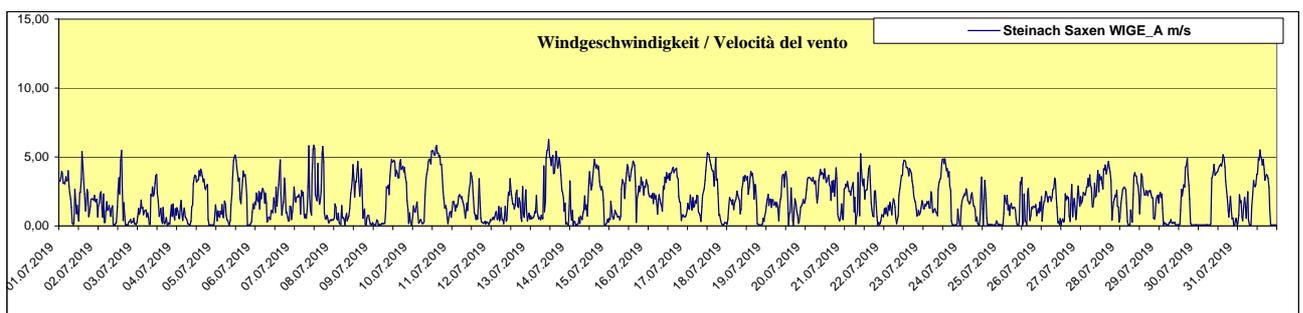
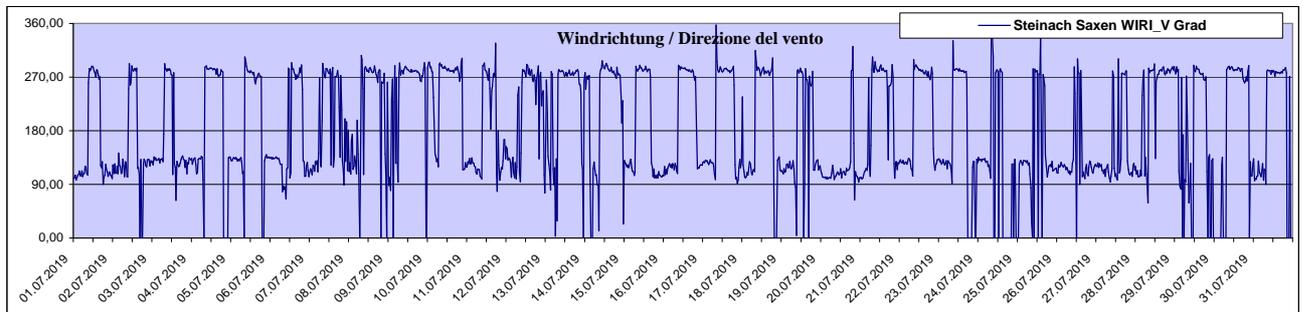
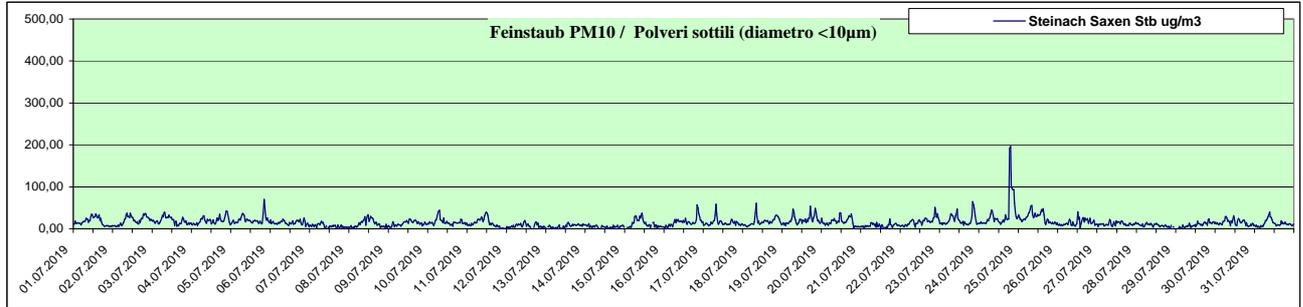
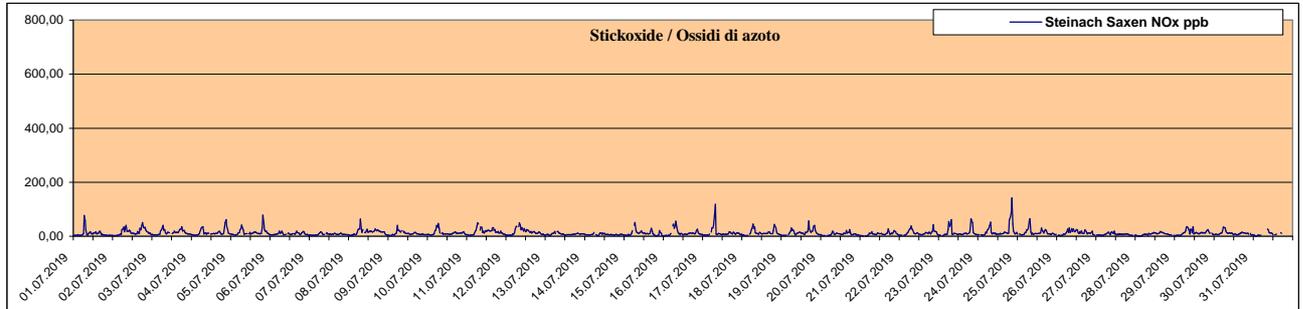
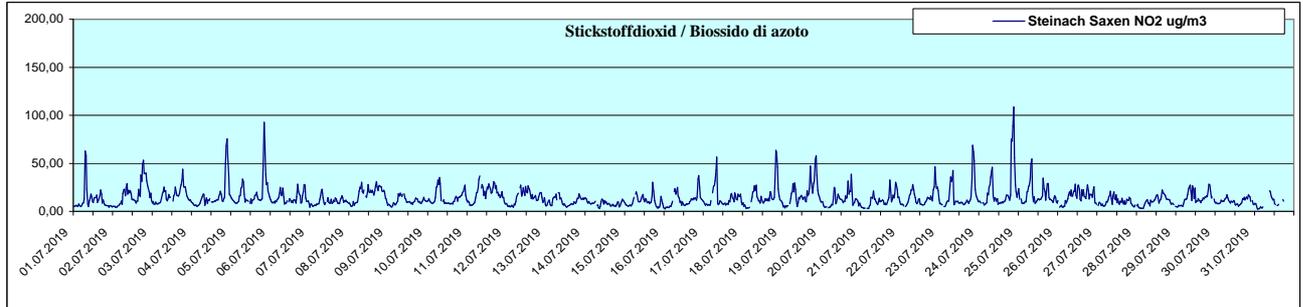
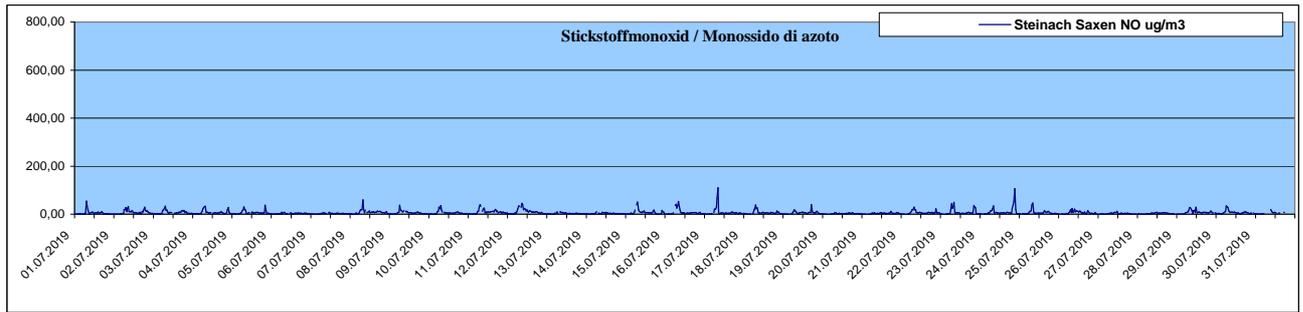
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	60,81	16,28	24,86	33,76	0		0	
Innsbruck Sillhöfe	52,71	15,69	28,35	41,54	0		0	
Steinach Siegreith	47,16	7,90	12,27	21,70	0		0	
Steinach Saxen	108,52	14,07	22,37	45,94	1		0	
Ampass	112,29	26,32	38,41	63,61	3		0	
Tulfes	47,60	10,74	16,20	33,64	0		0	

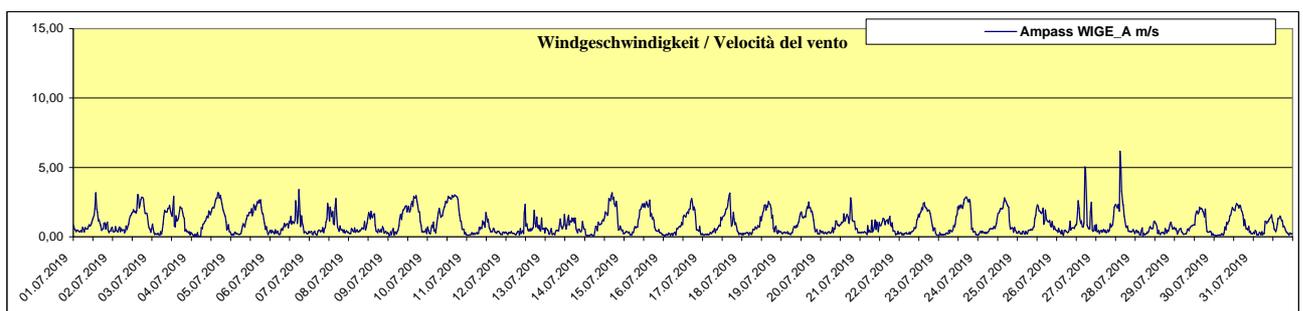
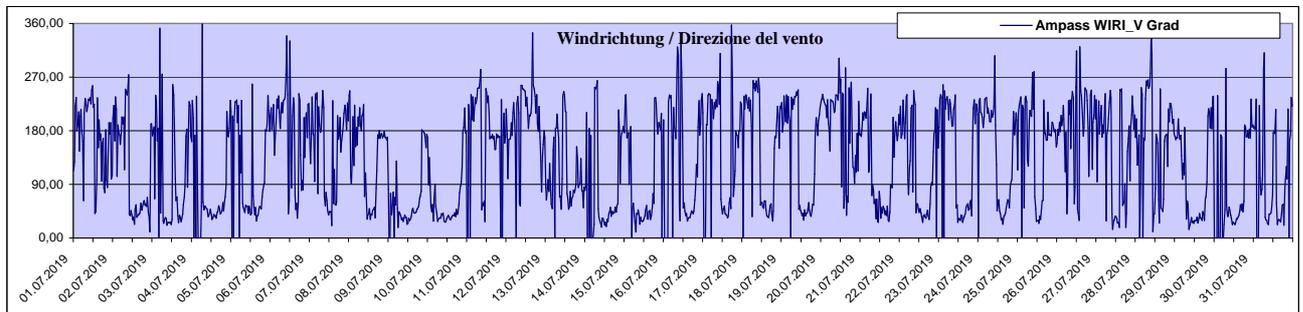
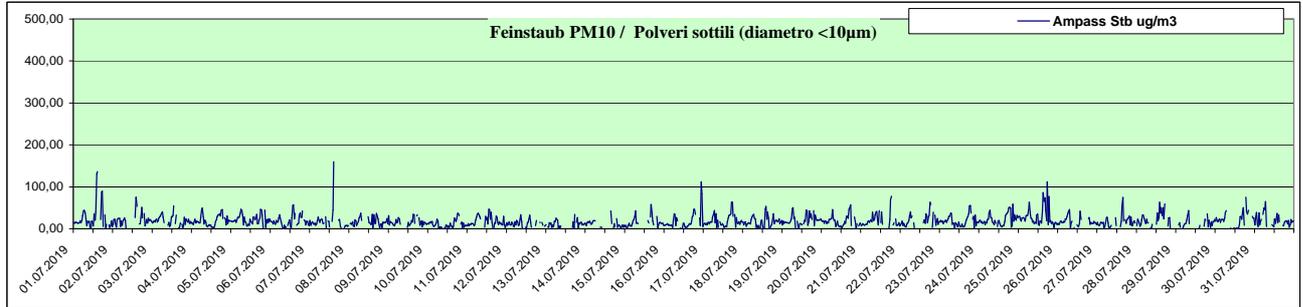
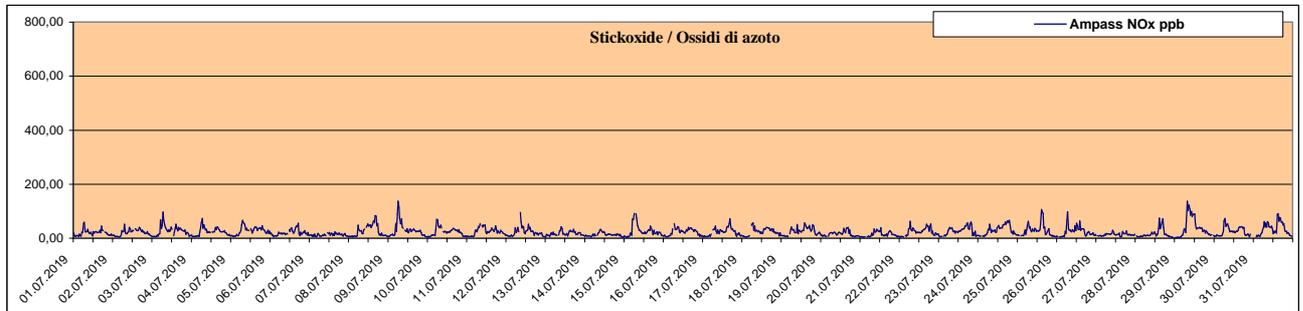
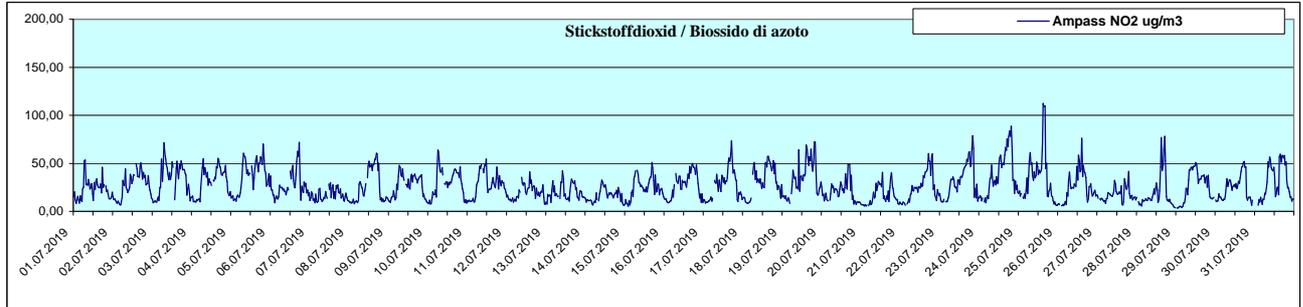
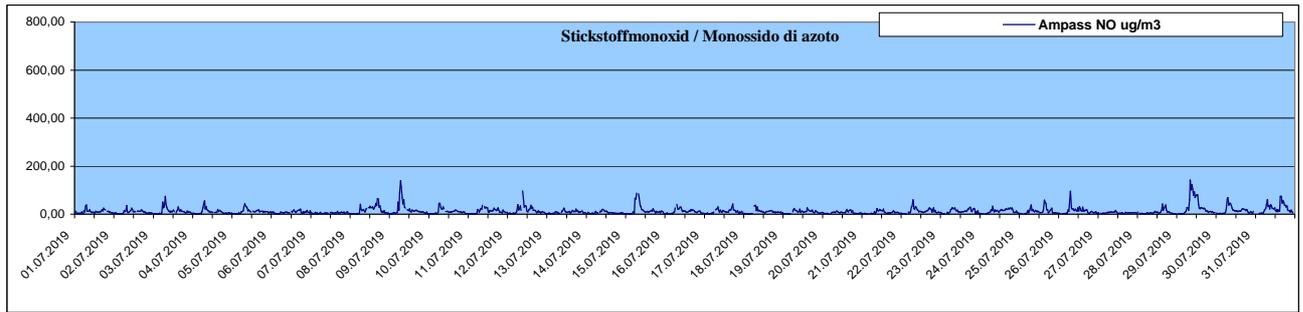
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	215,50	15,57	34,65	47,80	0		0	
Innsbruck Sillhöfe	81,80	12,87	20,73	34,50	0		0	
Steinach Siegreith	242,90	10,05	27,45	27,20	0		0	
Steinach Saxen	196,20	15,35	35,94	41,90	0		0	
Ampass	160,10	18,83	28,77	58,30	0		0	
Tulfes	52,70	10,99	21,19	25,20	0		0	

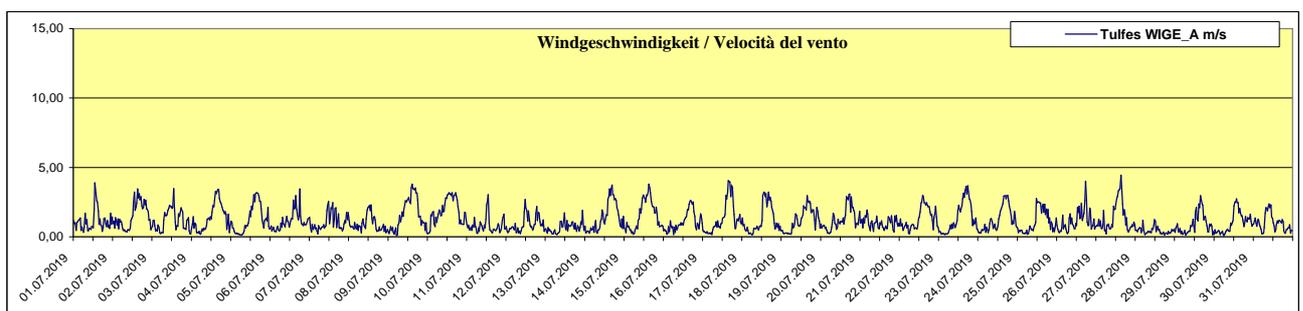
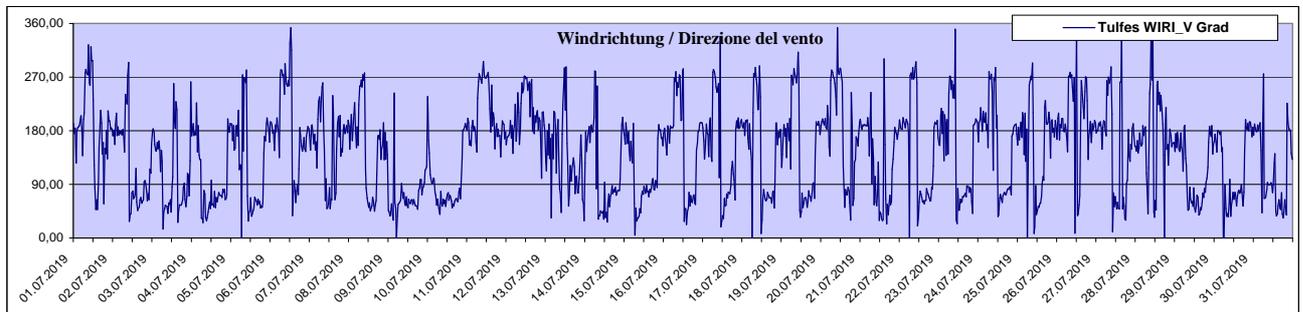
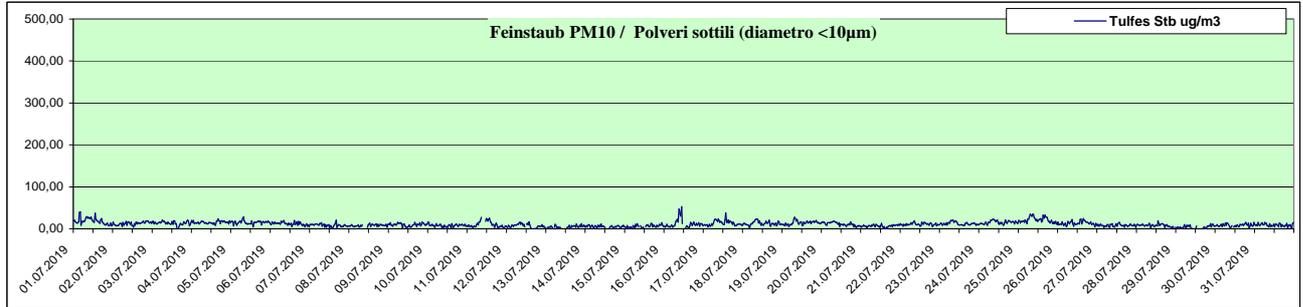
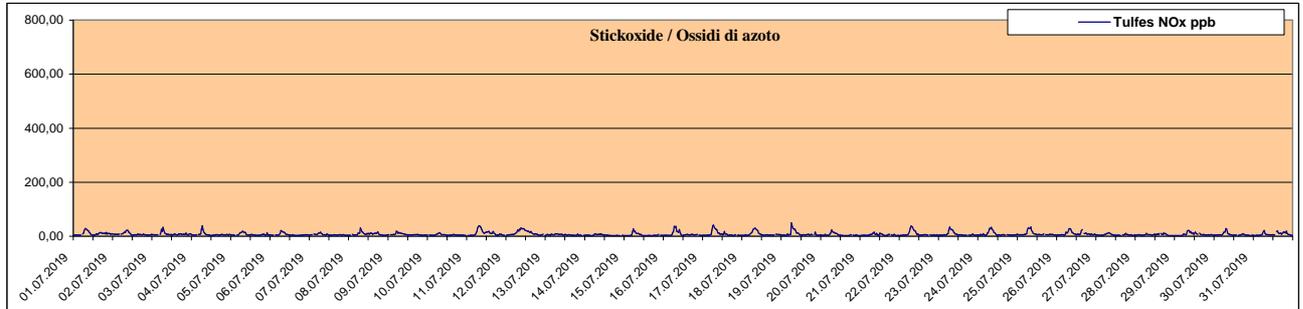
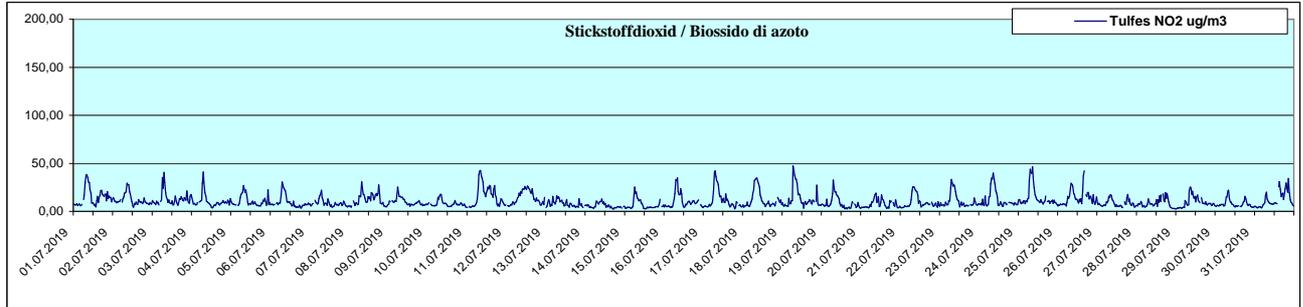
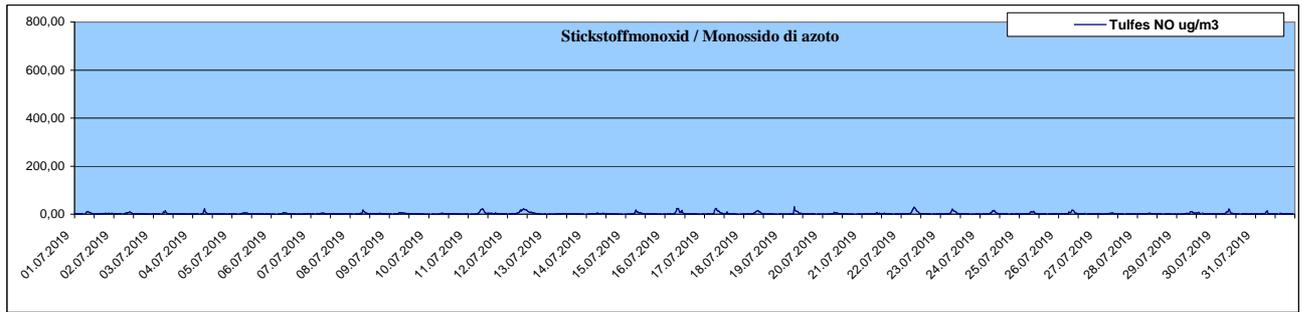




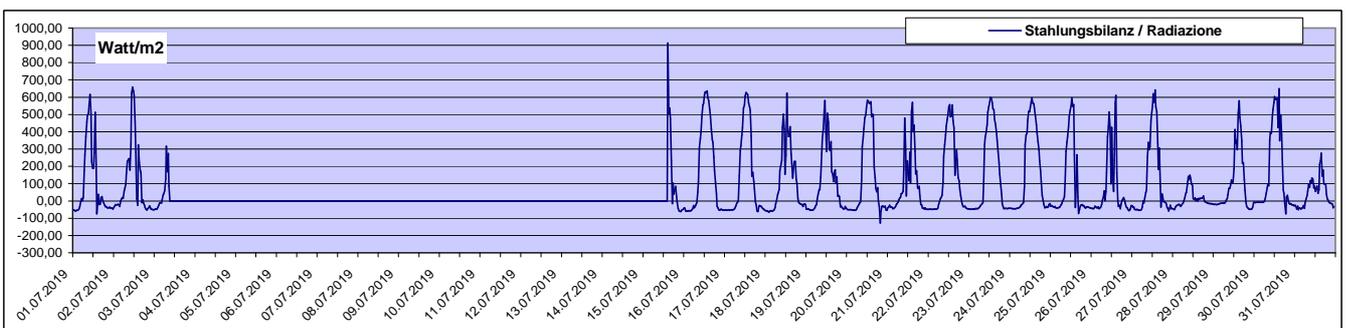
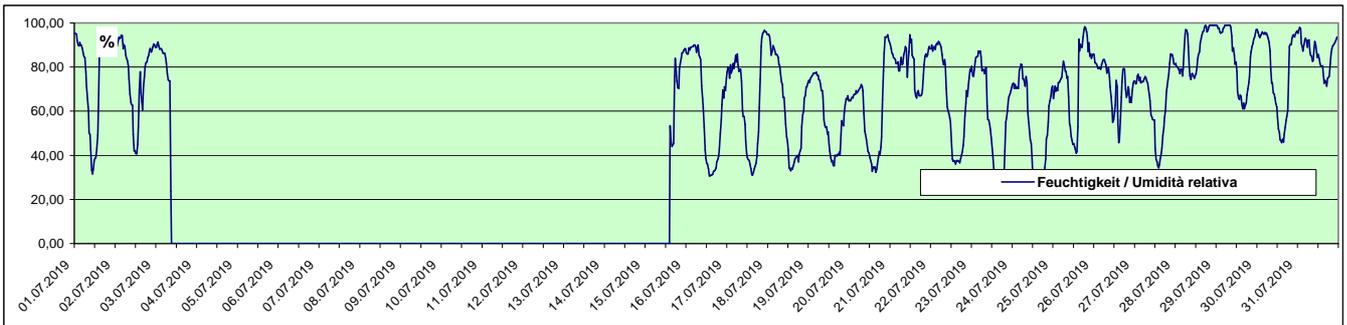
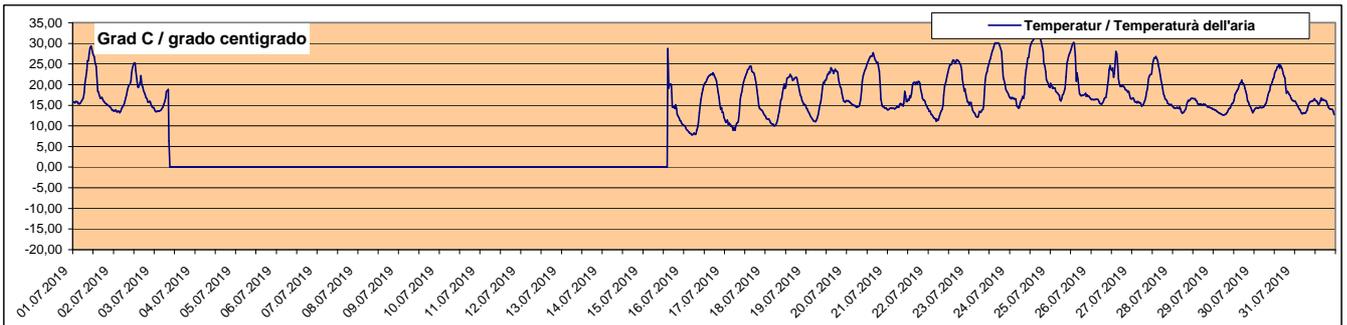
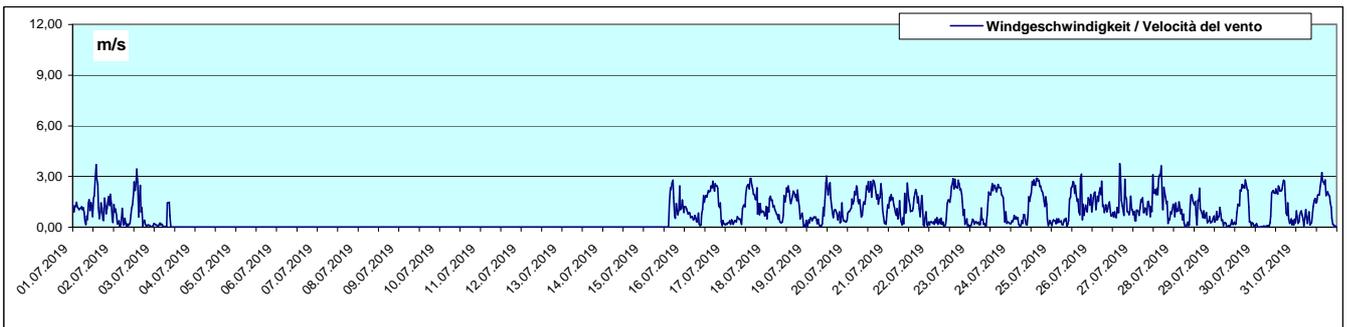
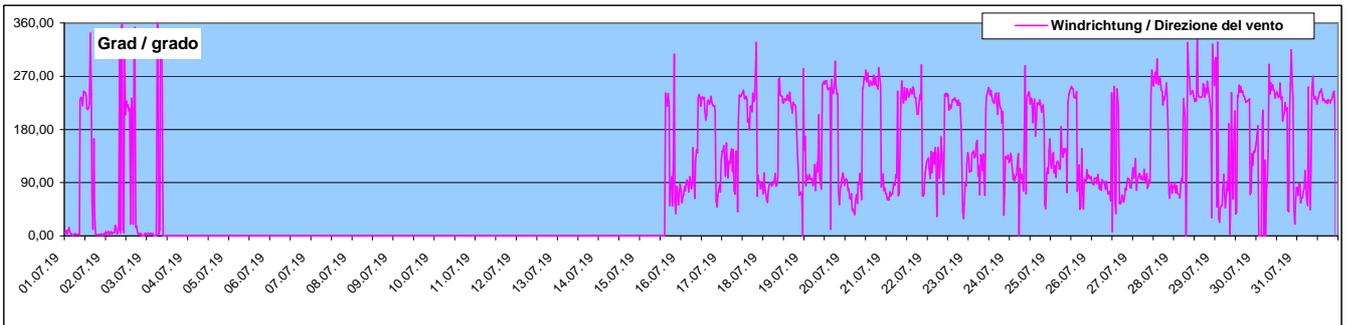








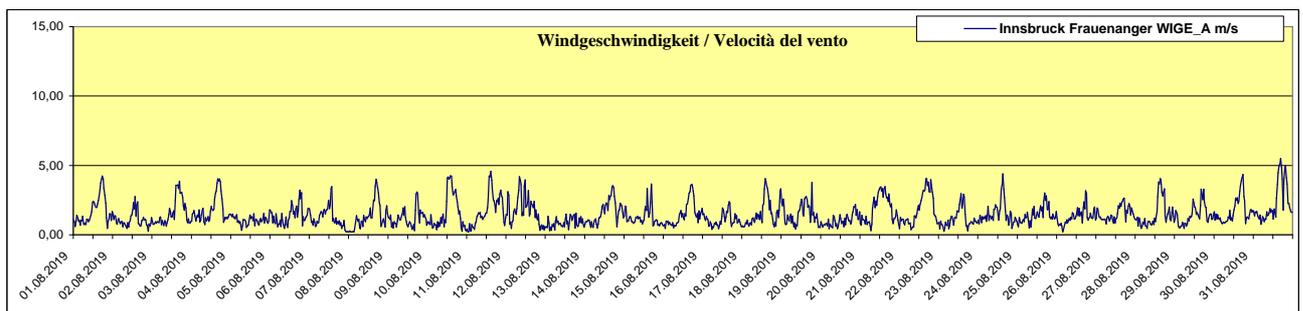
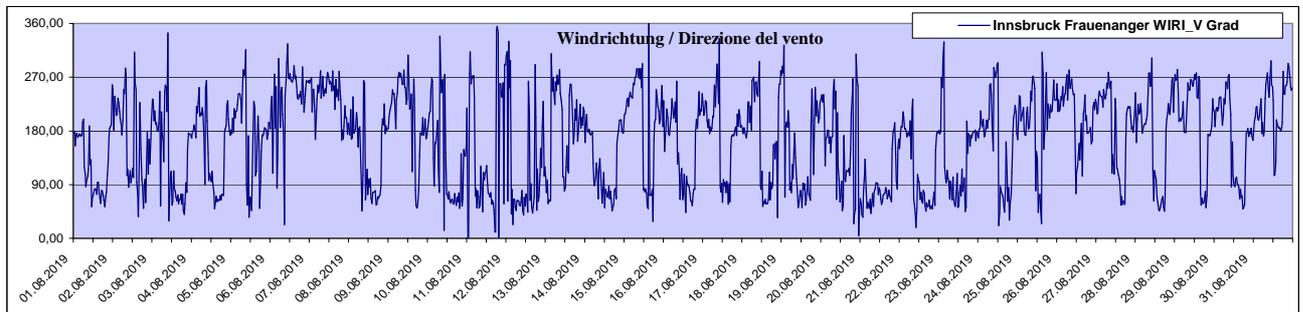
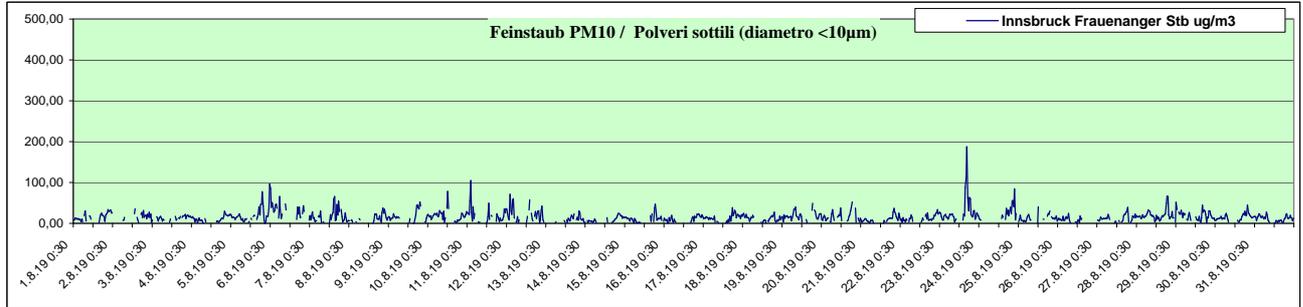
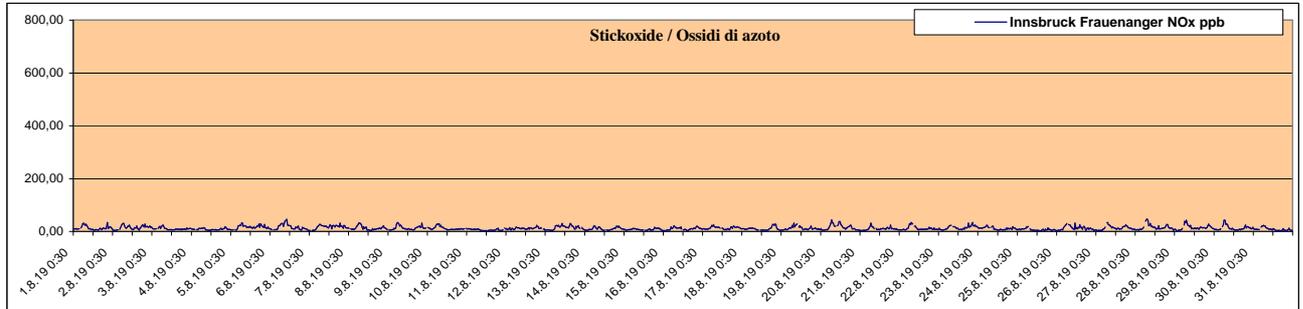
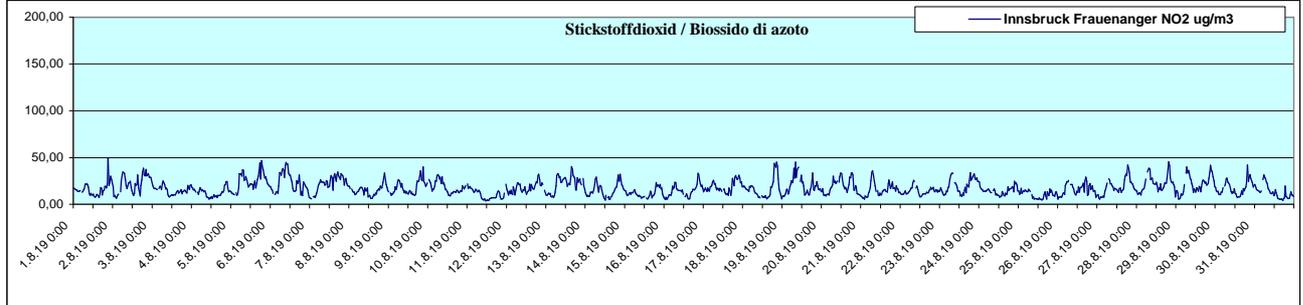
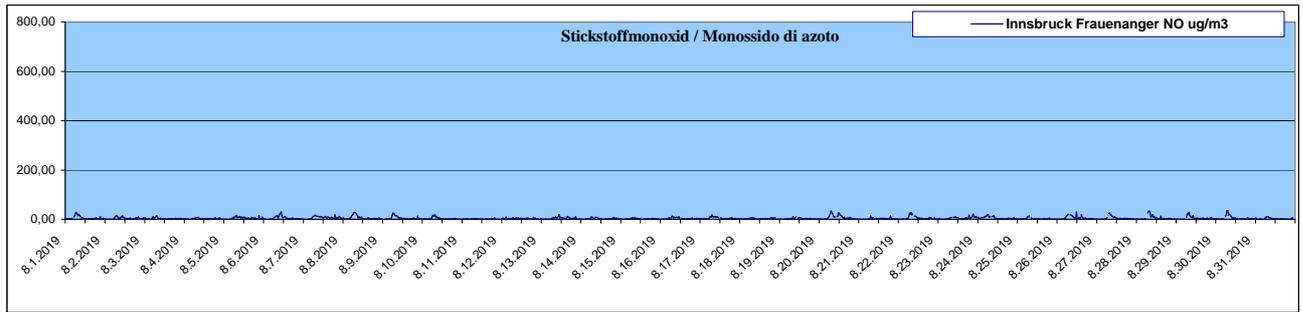
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Juli 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal luglio 2019

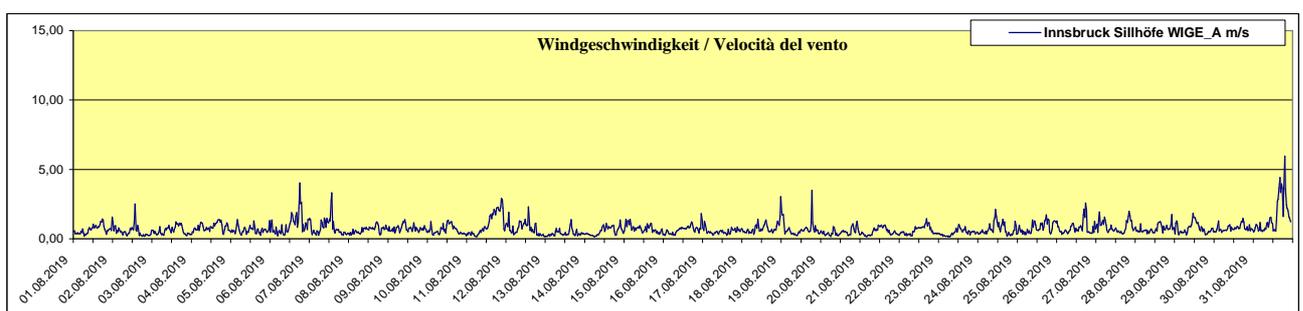
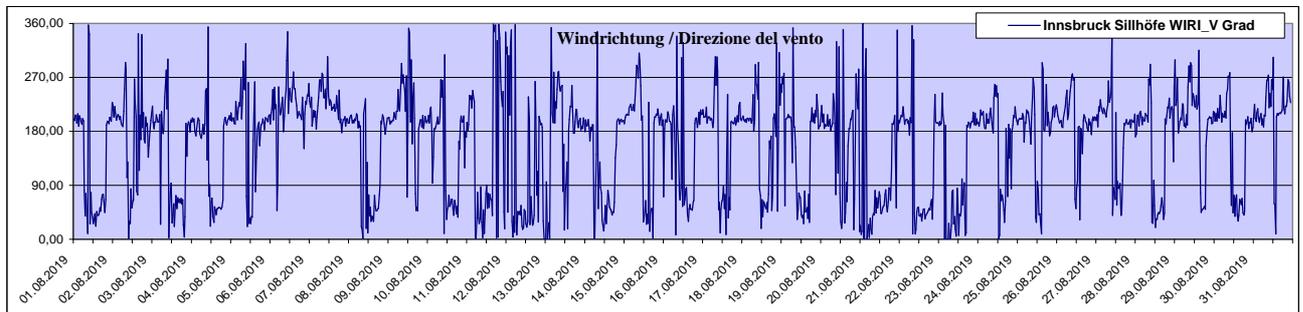
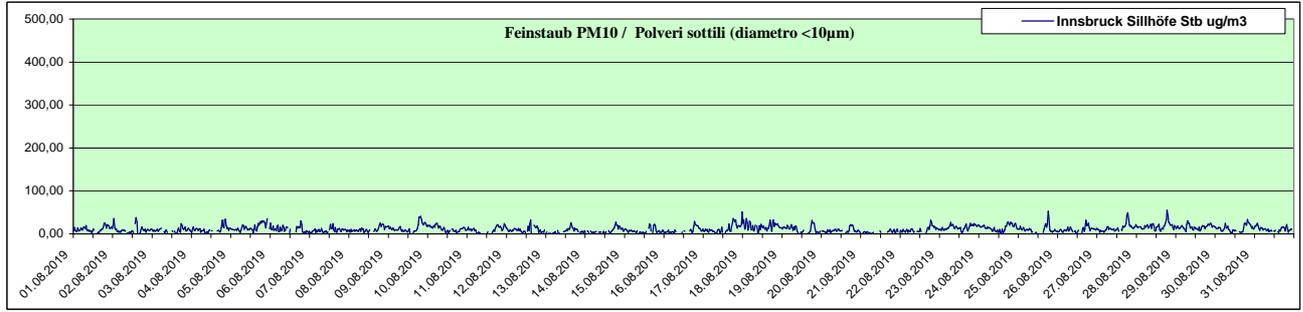
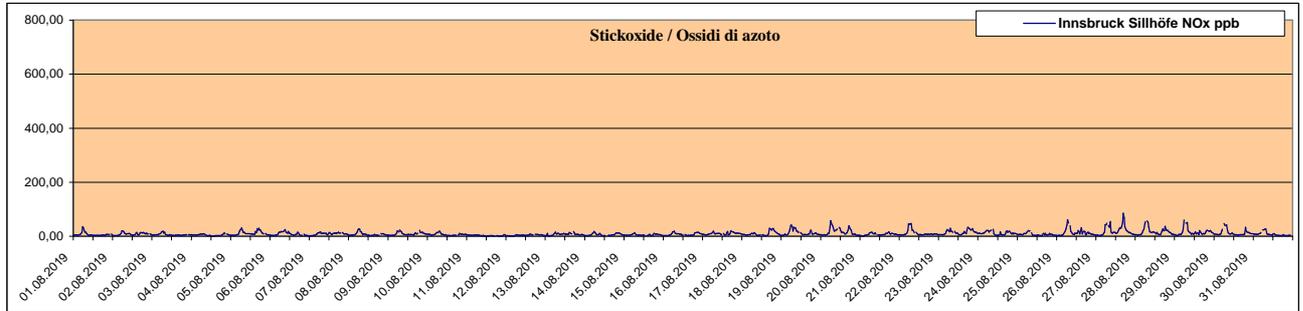
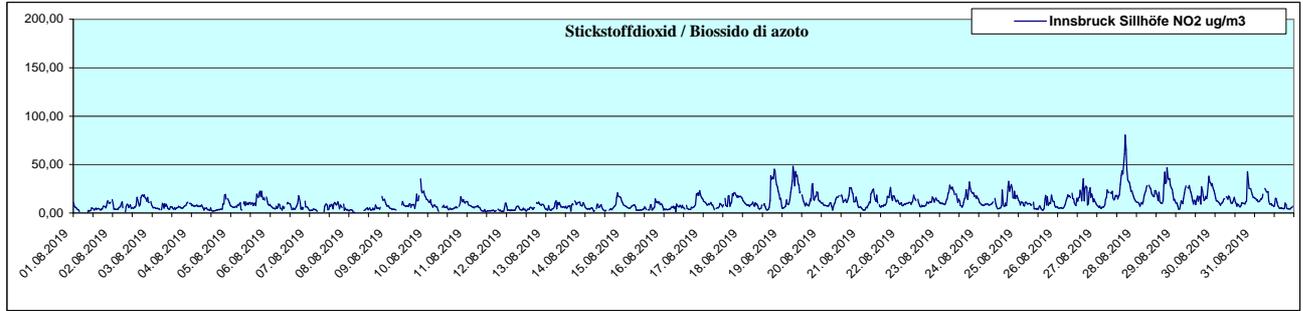
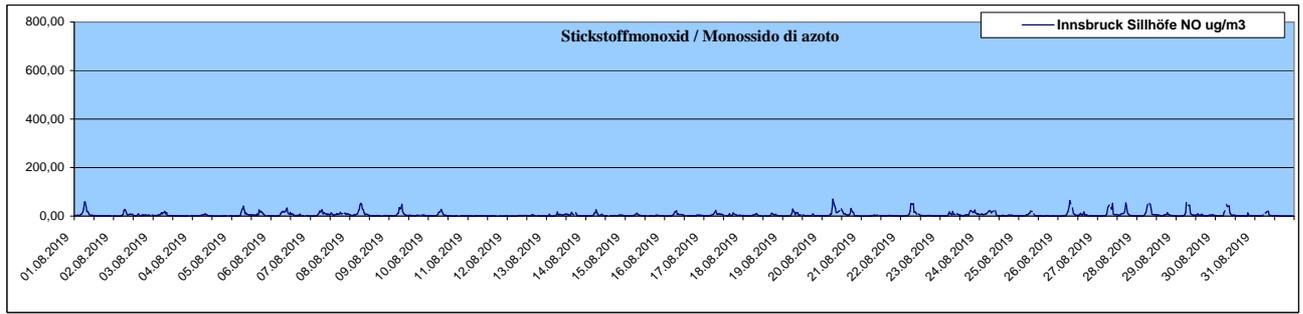


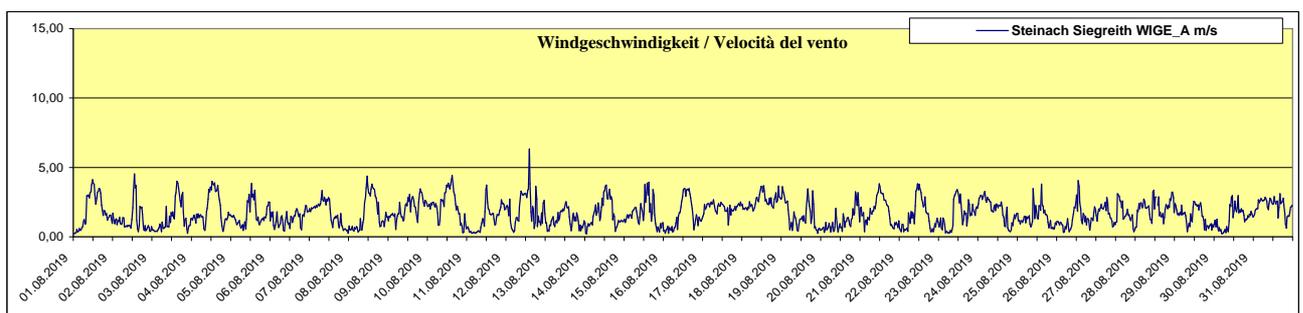
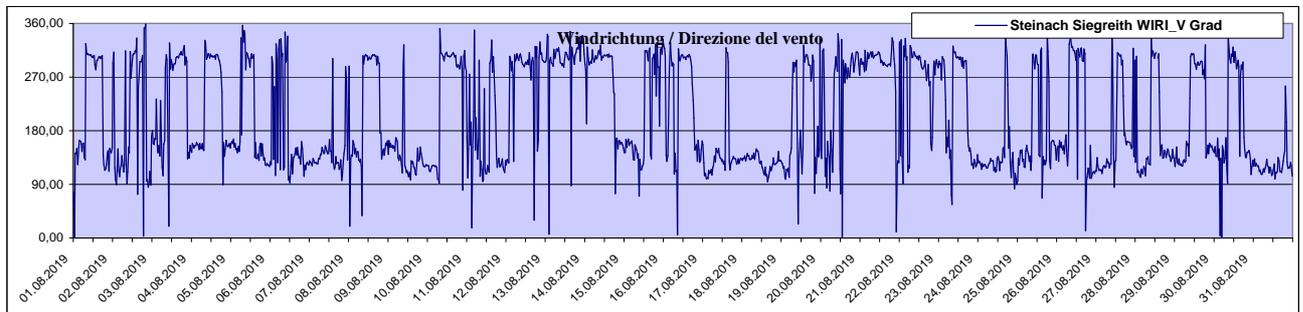
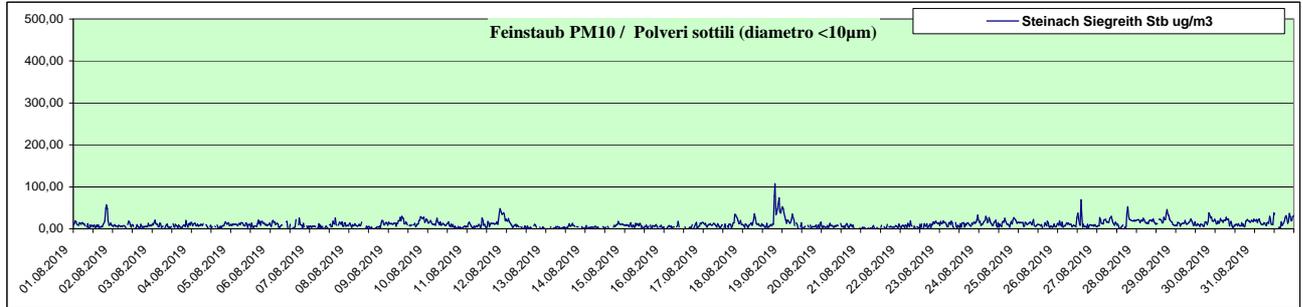
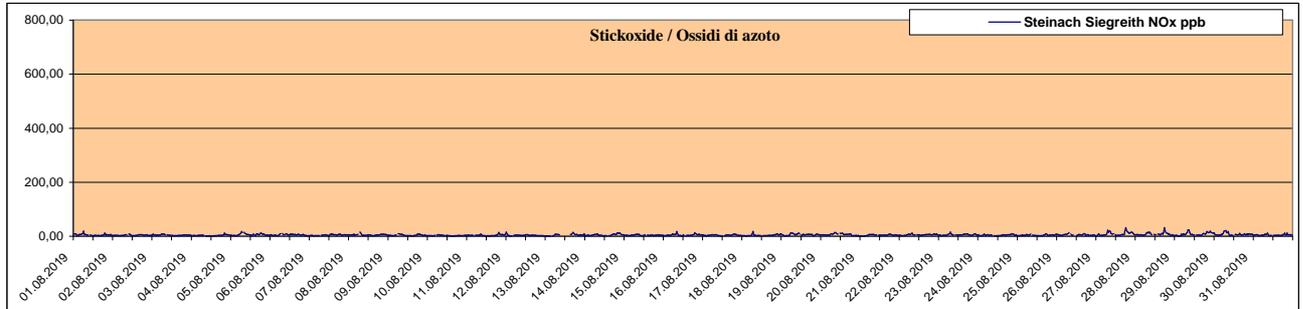
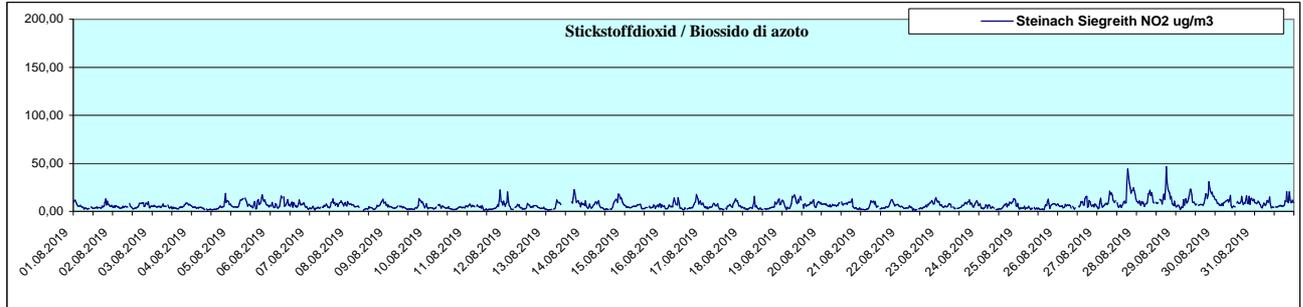
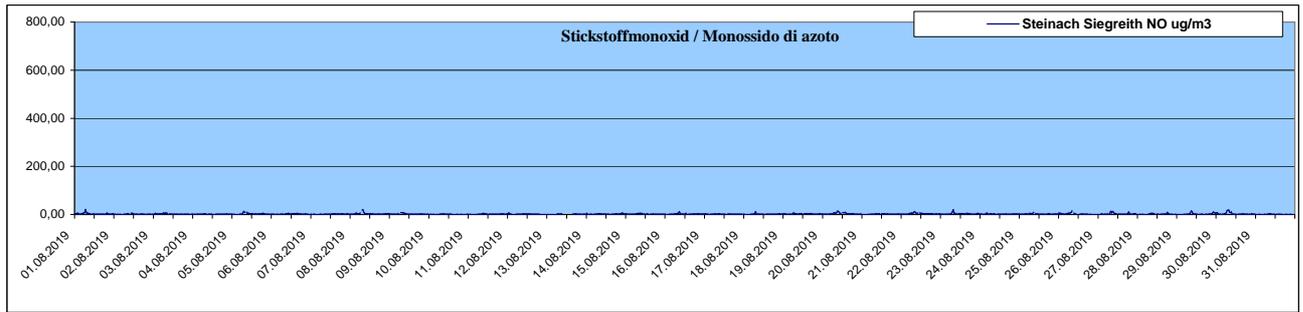
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	34,85	4,13	7,51	22,07	0		0	
Innsbruck Sillhöfe	70,15	5,52	12,41	40,42	0		0	
Steinach Siegreith	21,64	2,08	3,76	9,68	0		0	
Steinach Saxen	61,31	5,85	10,76	23,60	0		0	
Ampass	163,00	12,18	25,32	46,88	0		0	
Tulfes	48,40	2,74	5,60	18,51	0		0	

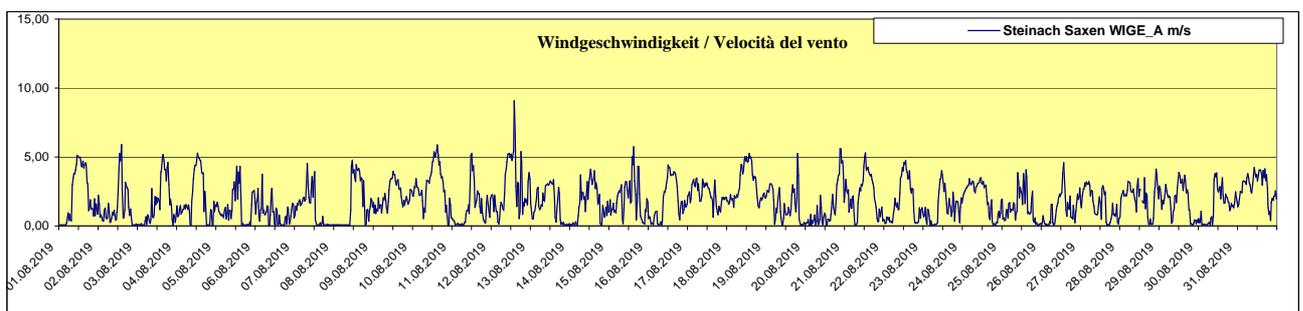
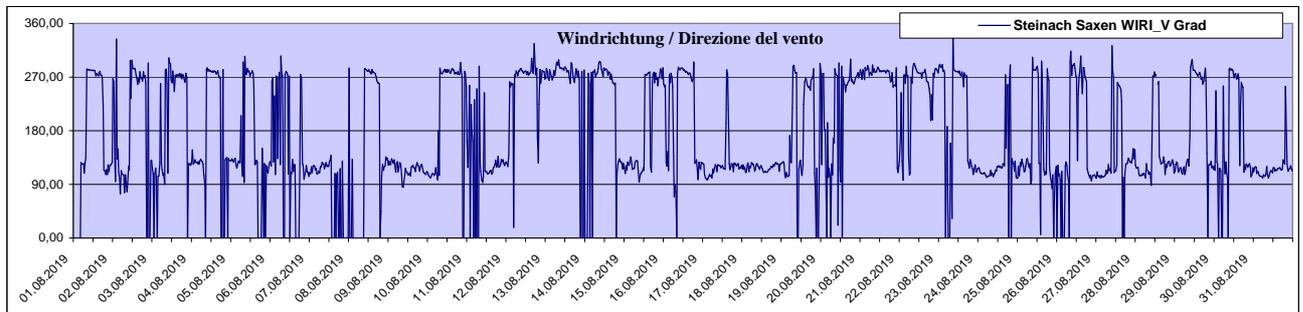
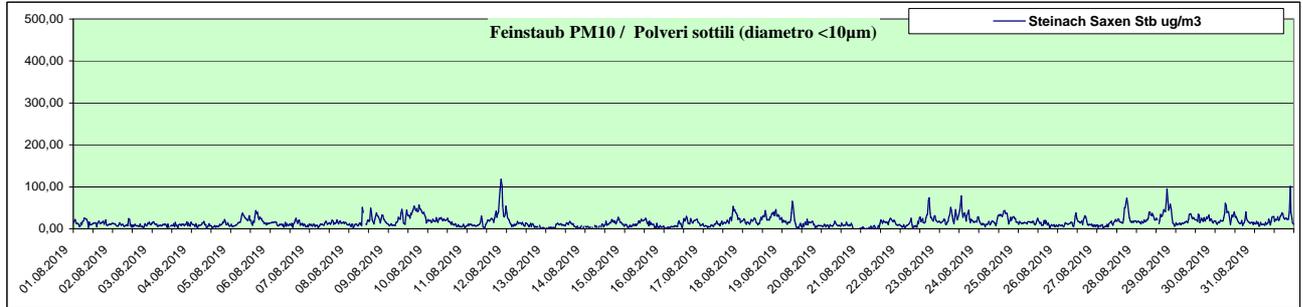
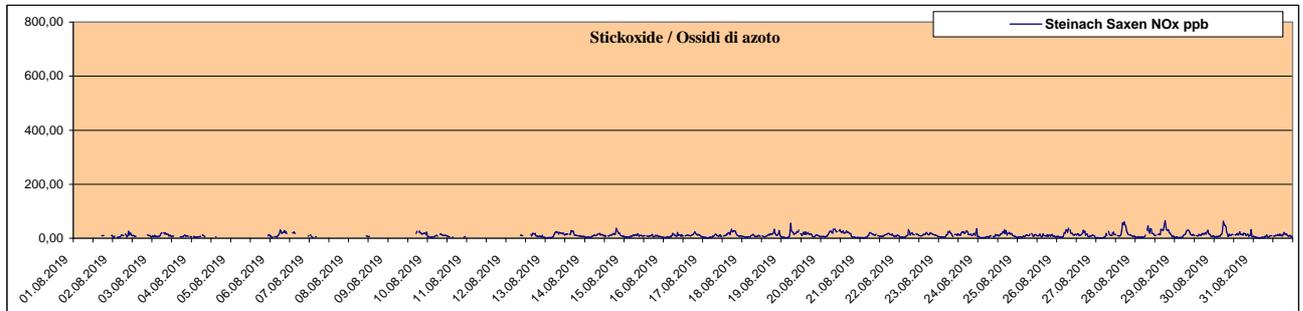
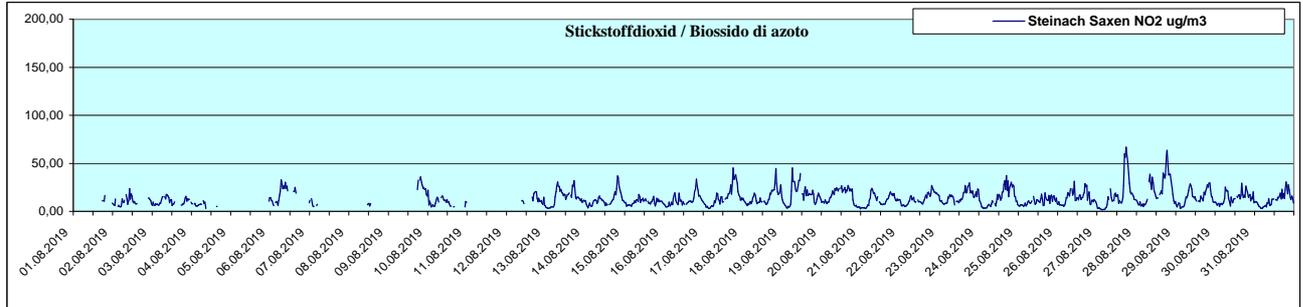
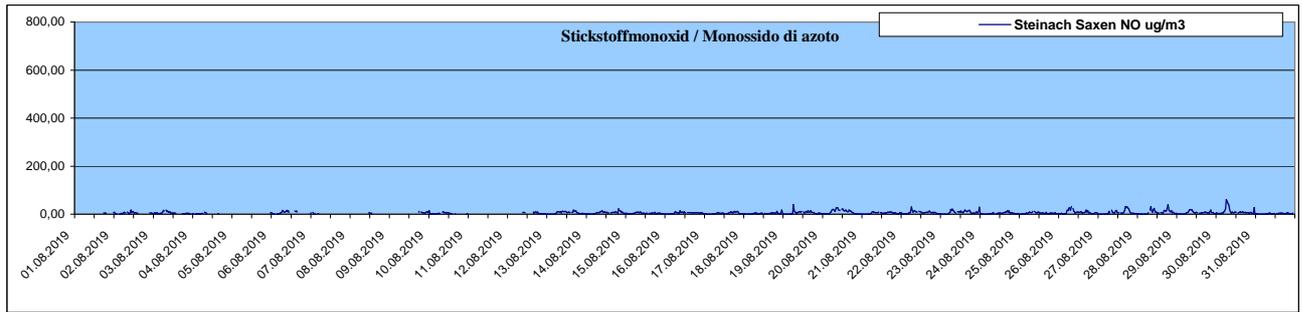
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	49,48	17,23	24,58	37,61	0		0	
Innsbruck Sillhöfe	80,34	10,72	22,91	34,14	0		0	
Steinach Siegreith	46,47	6,66	13,16	19,19	0		0	
Steinach Saxen	66,89	13,84	21,93	37,20	0		0	
Ampass	73,05	16,63	27,20	51,64	0		0	
Tulfes	45,69	9,48	14,74	27,50	0		0	

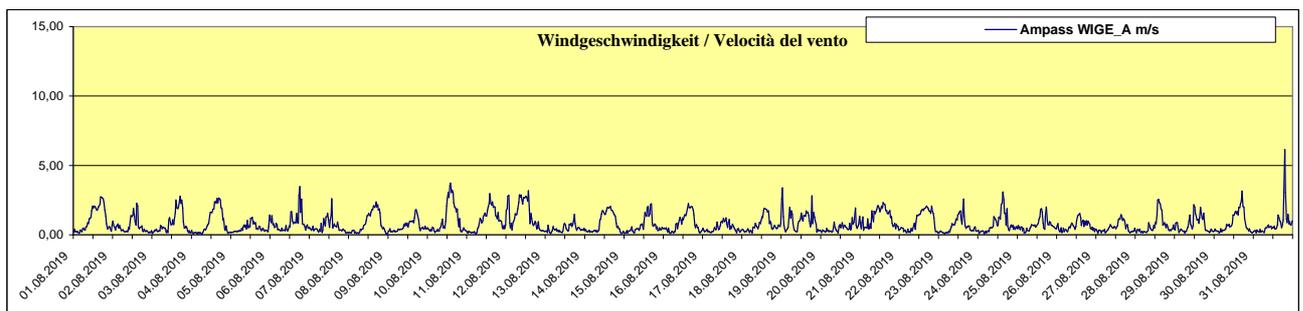
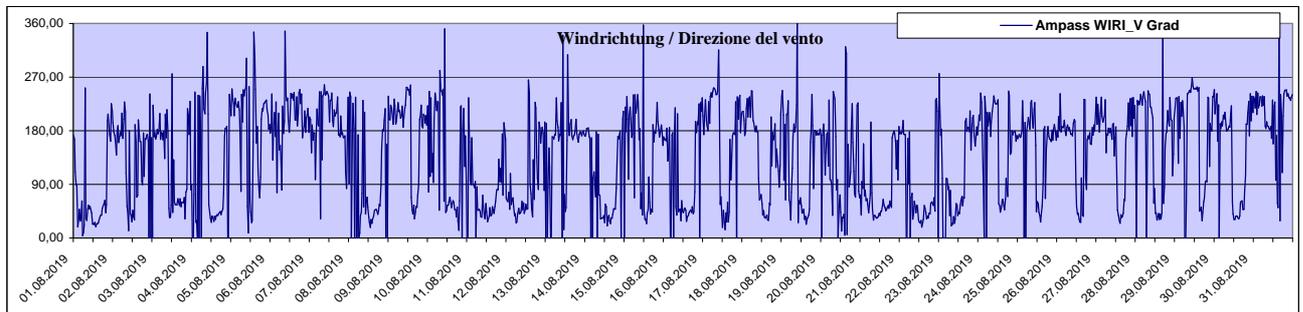
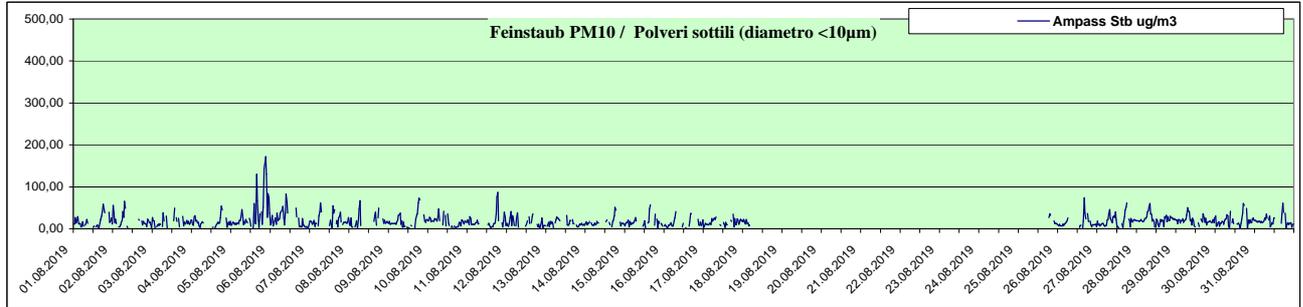
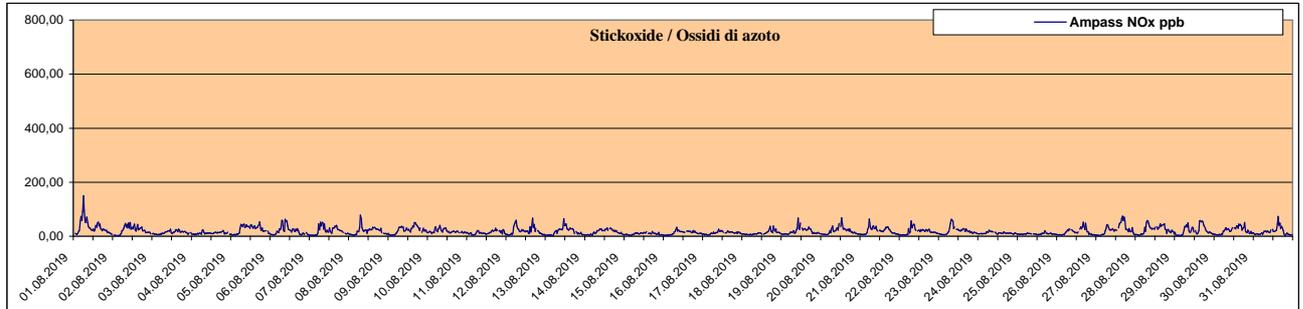
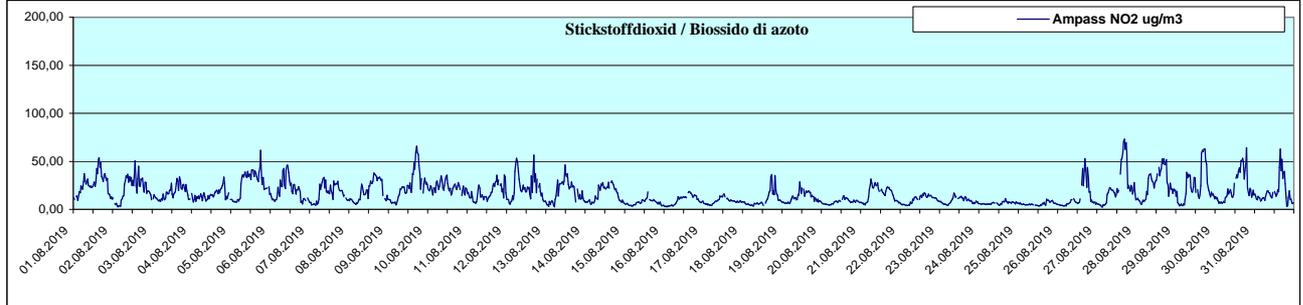
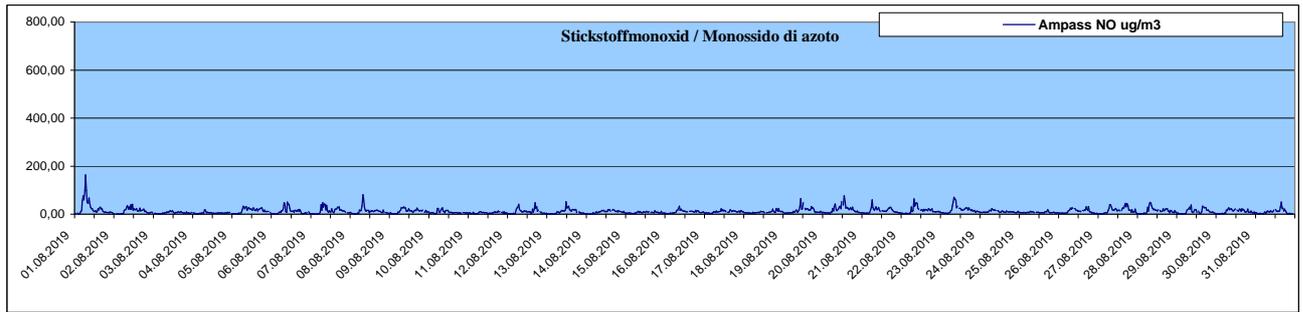
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	187,30	15,96	28,69	55,20	0		0	
Innsbruck Sillhöfe	54,90	11,44	18,21	32,00	0		0	
Steinach Siegreith	107,00	10,93	19,65	35,50	0		0	
Steinach Saxen	117,70	16,30	29,26	50,60	0		0	
Ampass	172,00	19,01	38,33	61,90	0		0	
Tulfes	62,50	8,92	17,35	19,90	0		0	

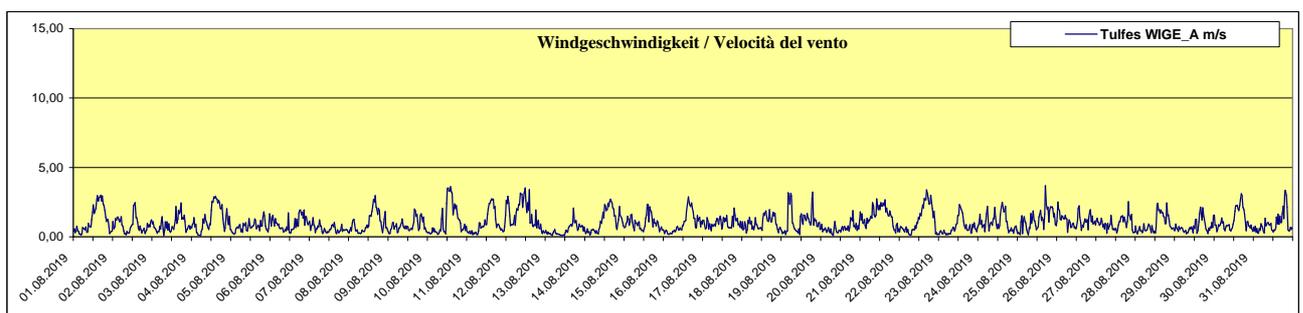
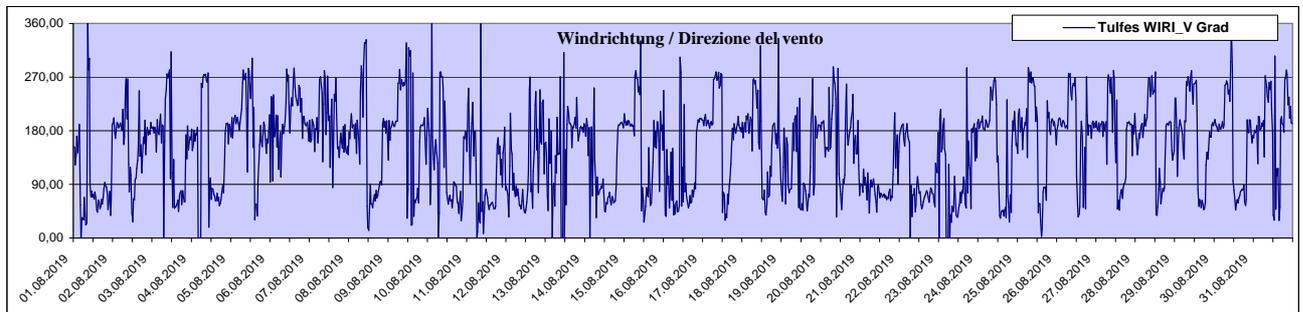
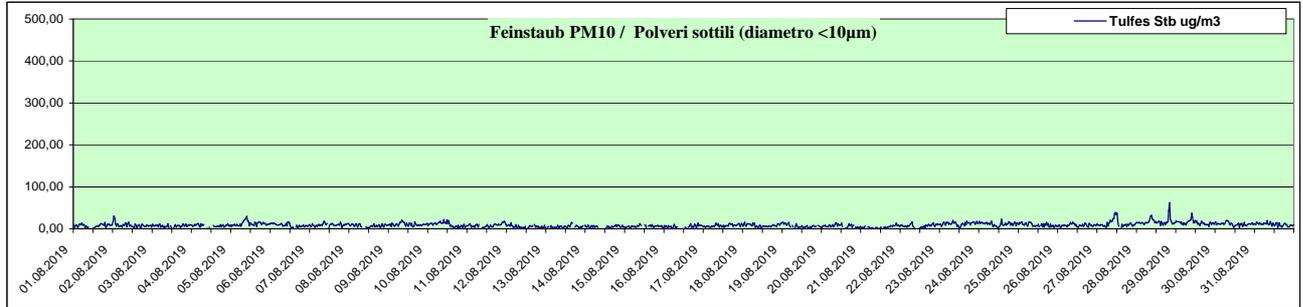
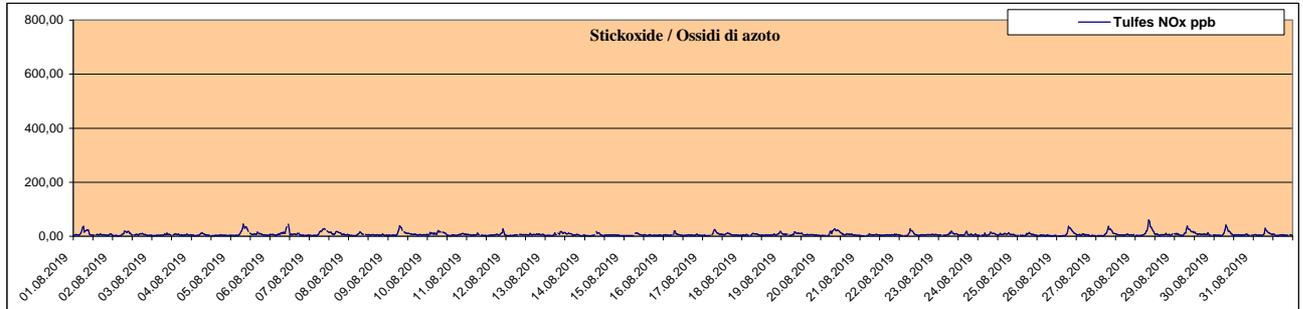
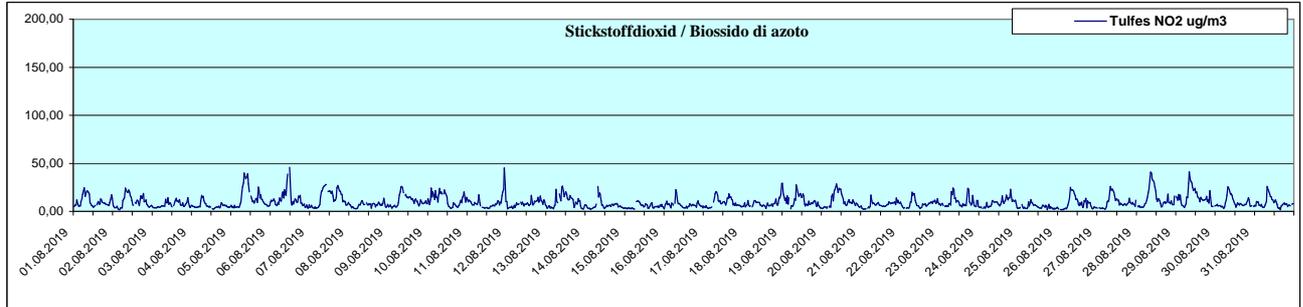
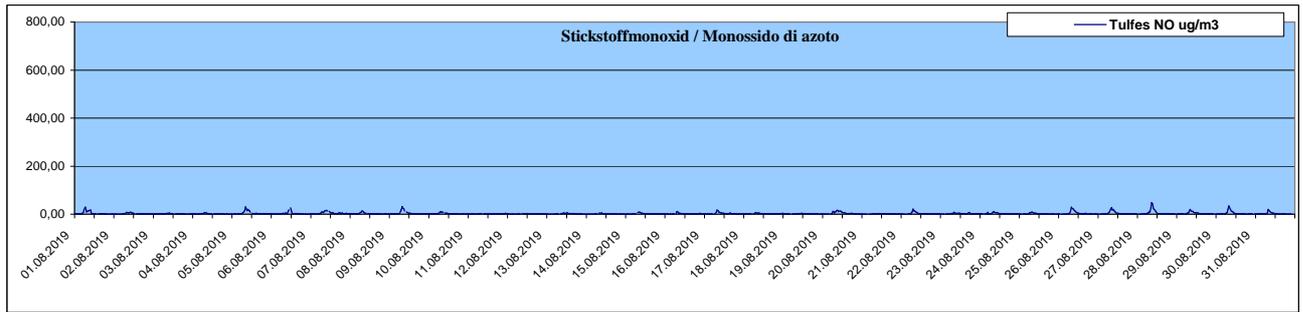




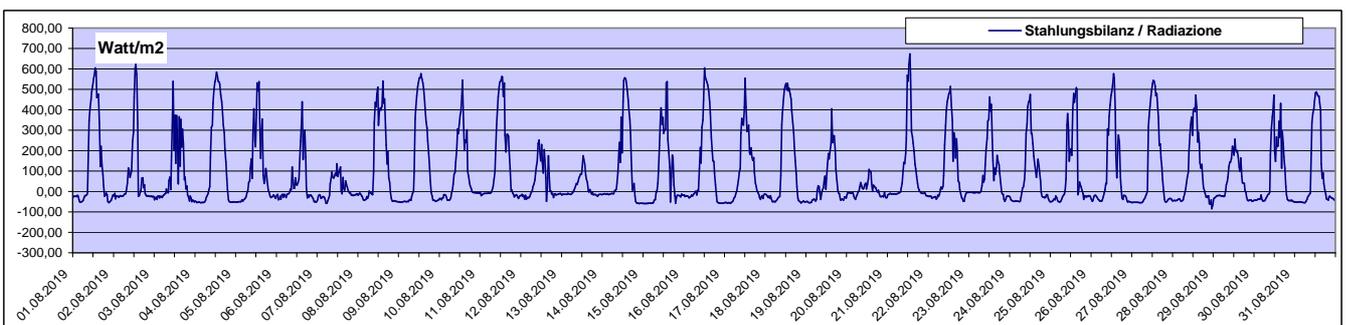
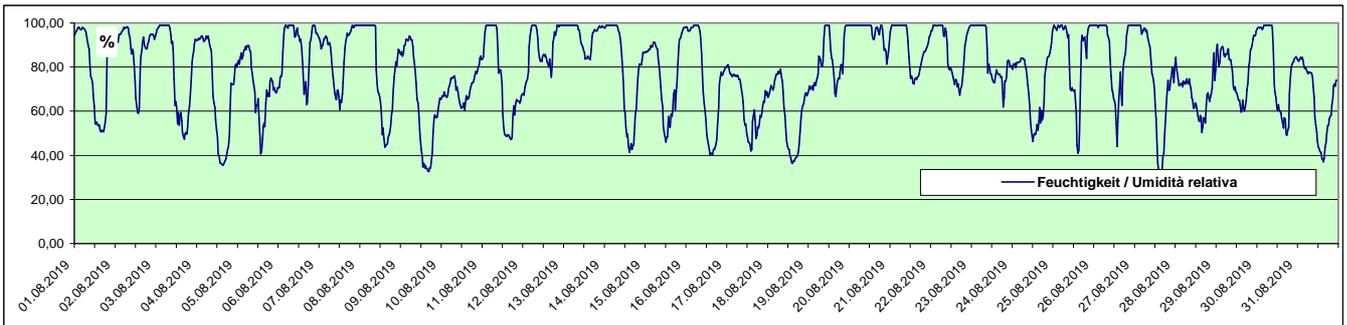
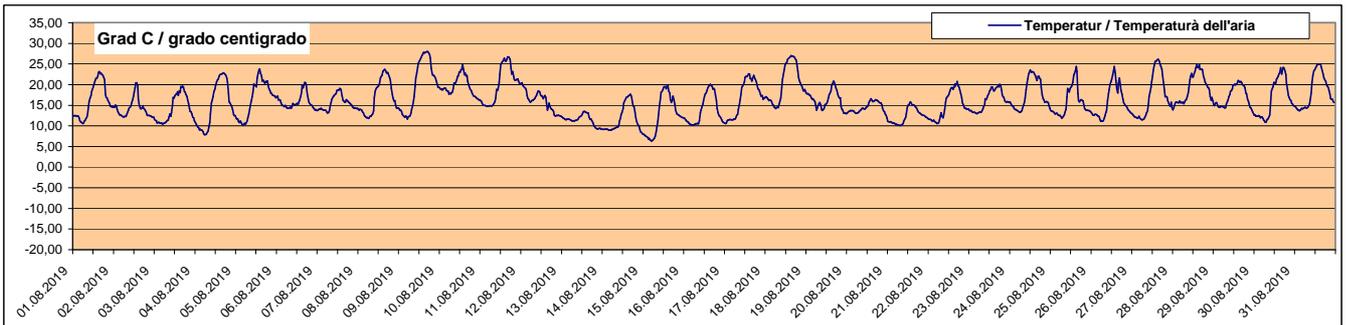
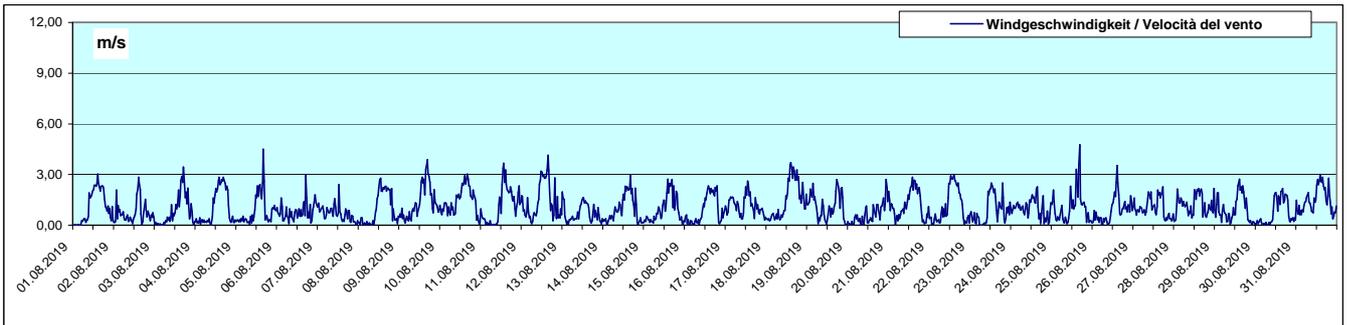
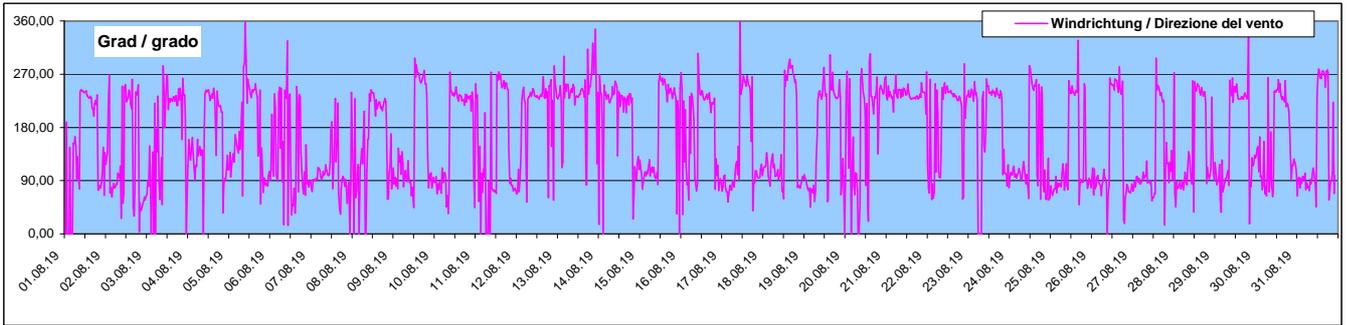








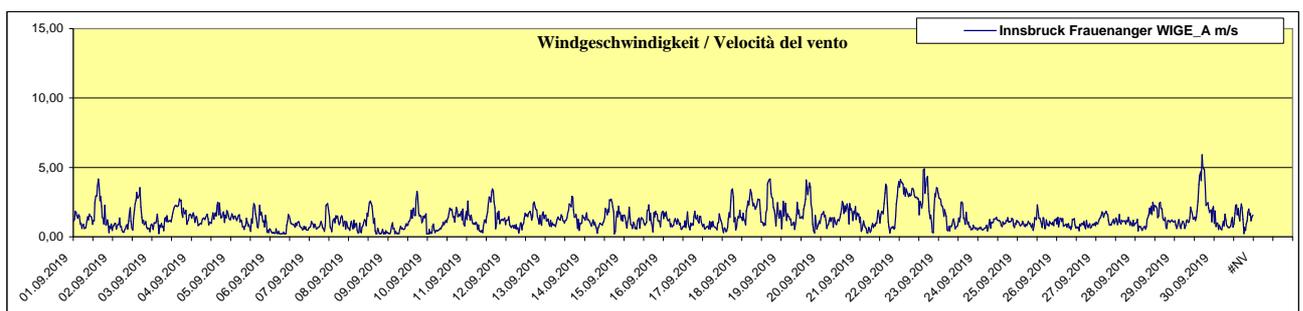
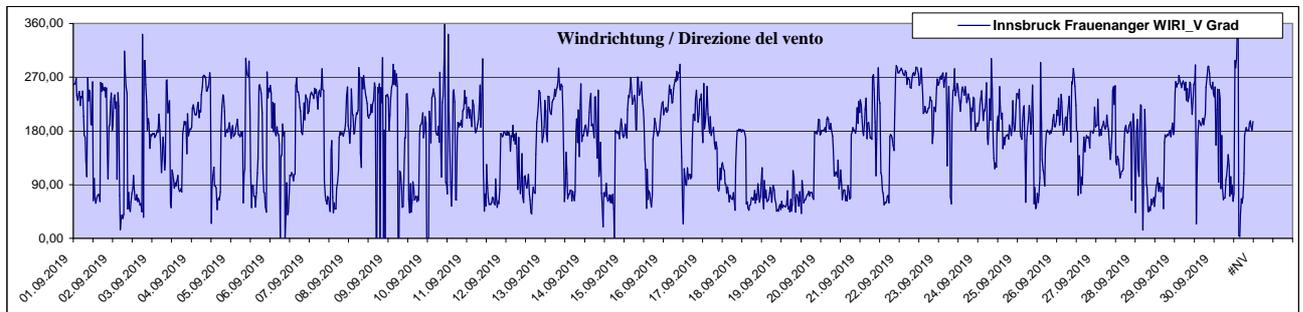
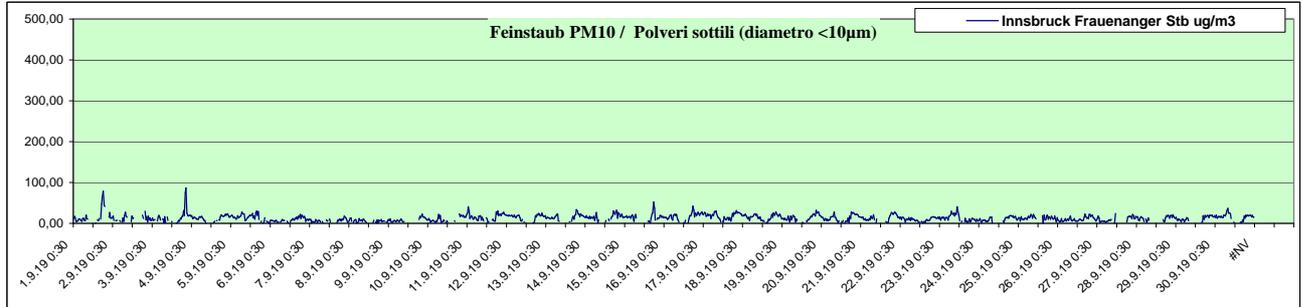
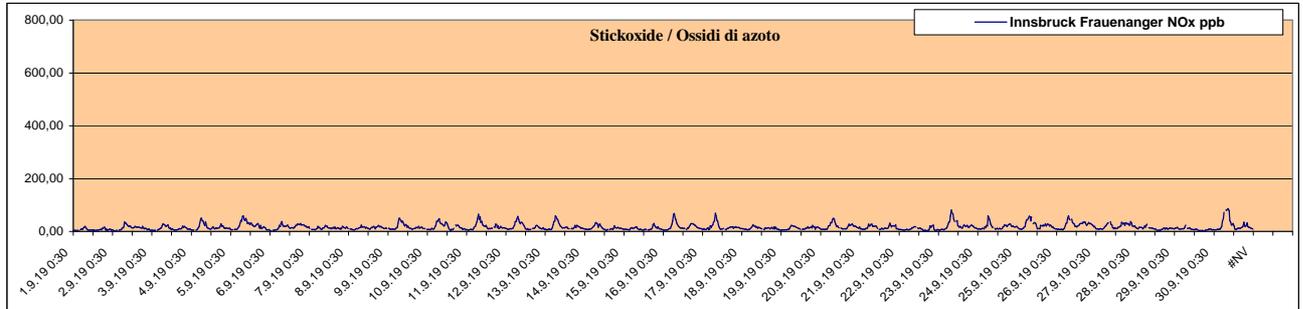
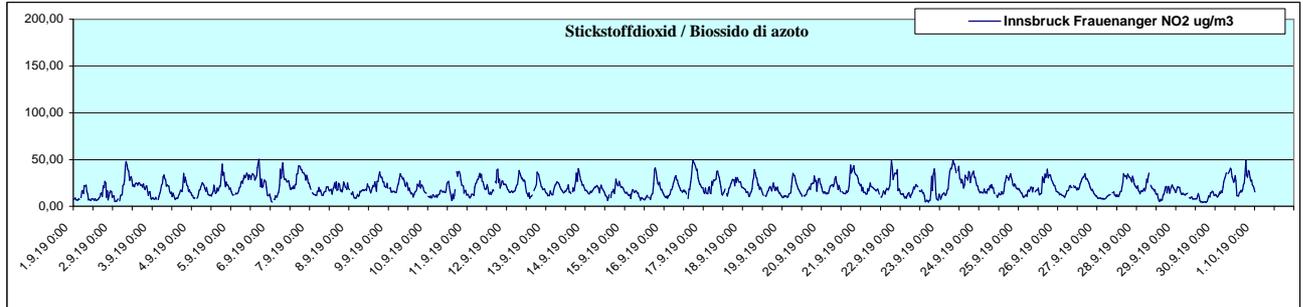
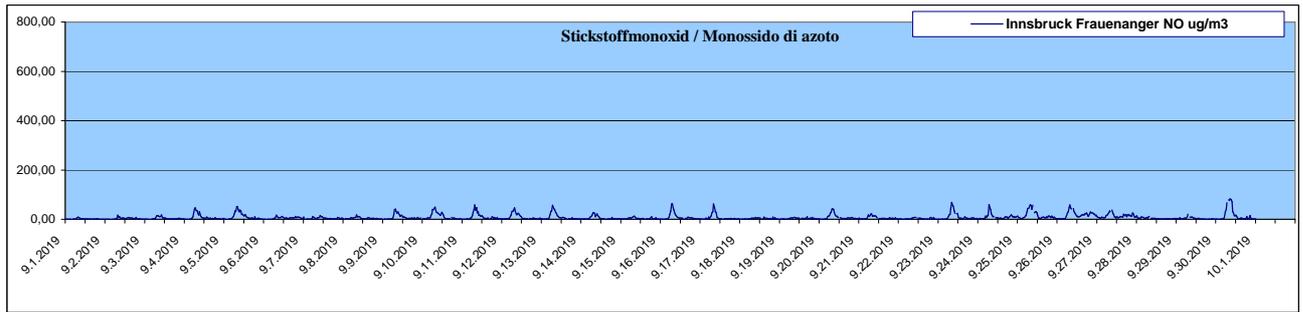
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal August 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal agosto 2019

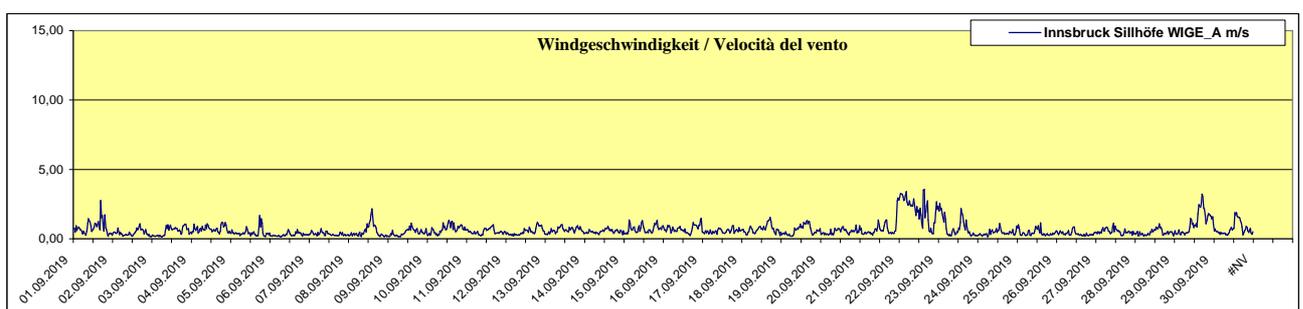
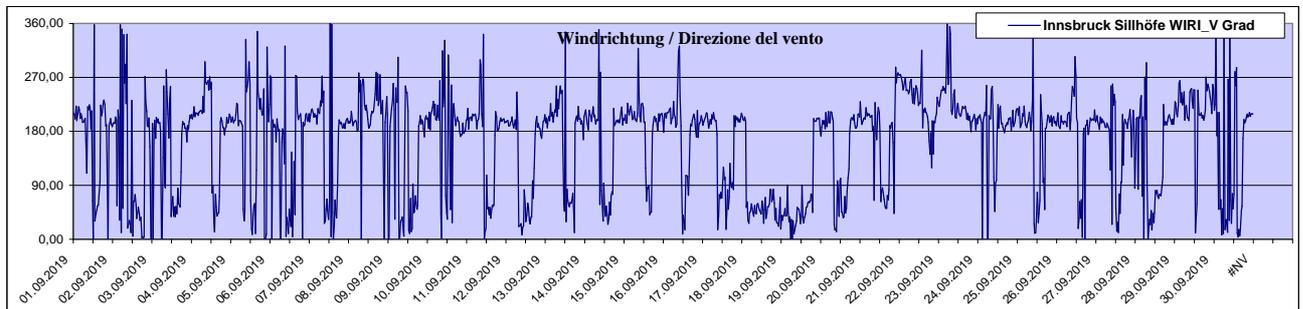
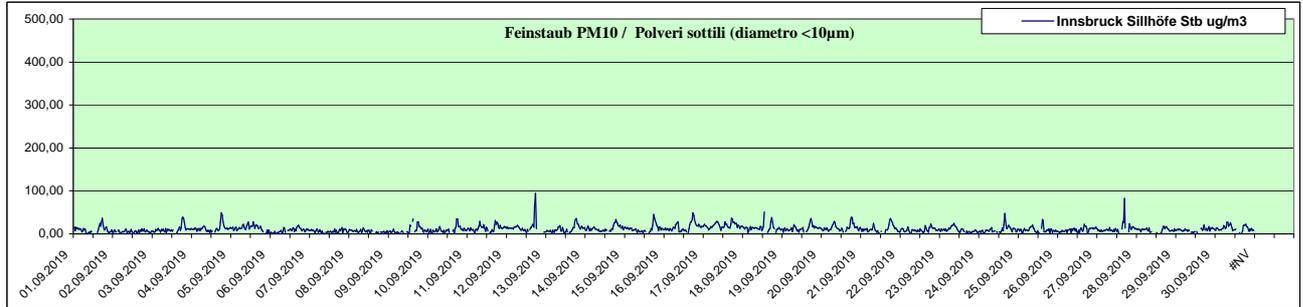
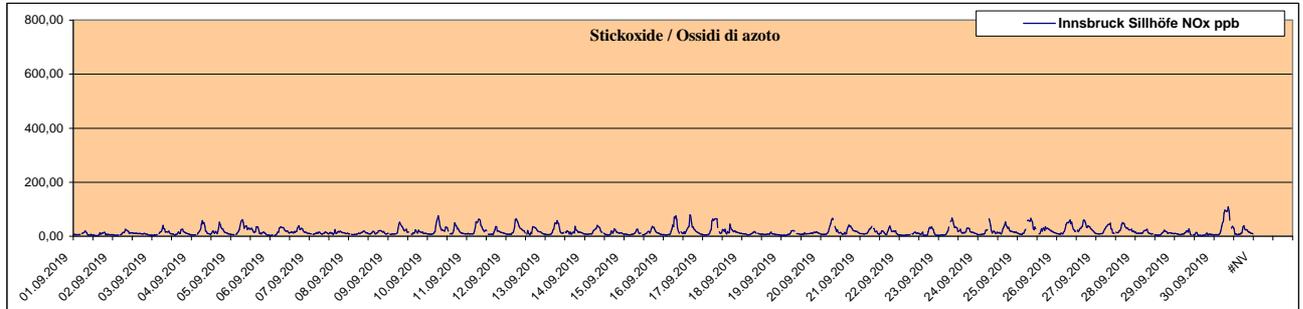
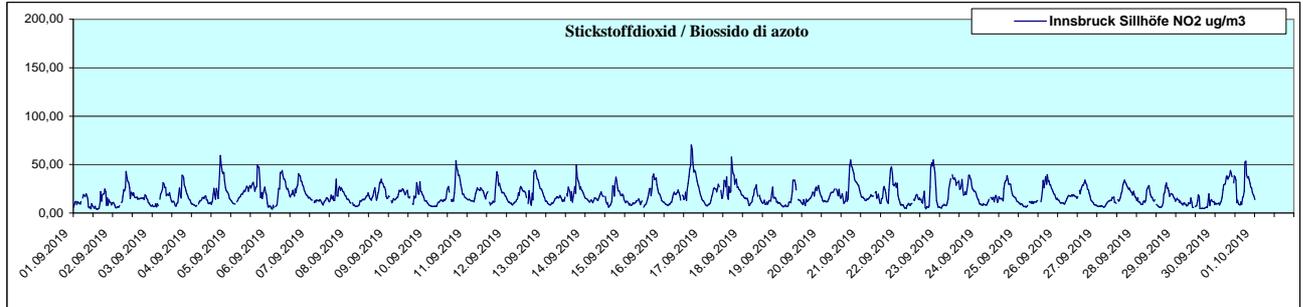
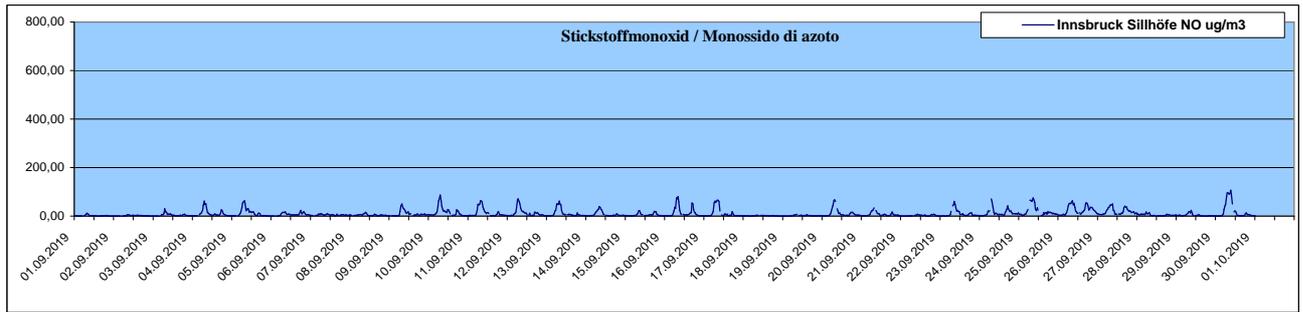


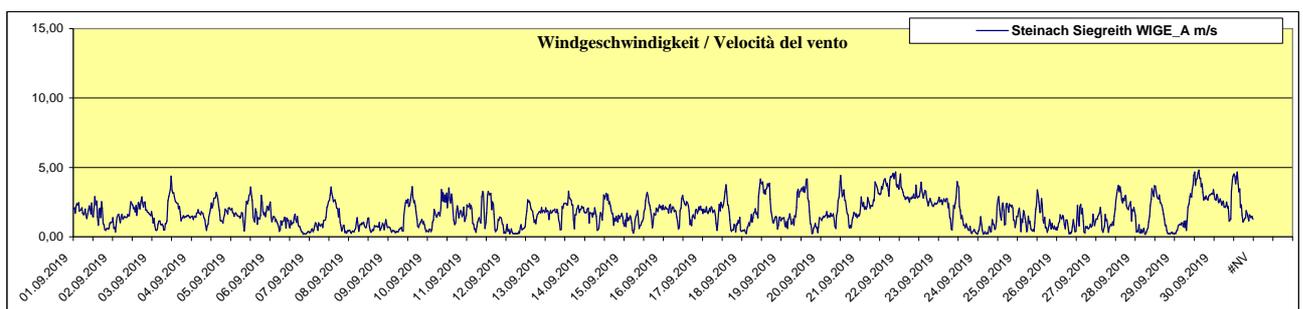
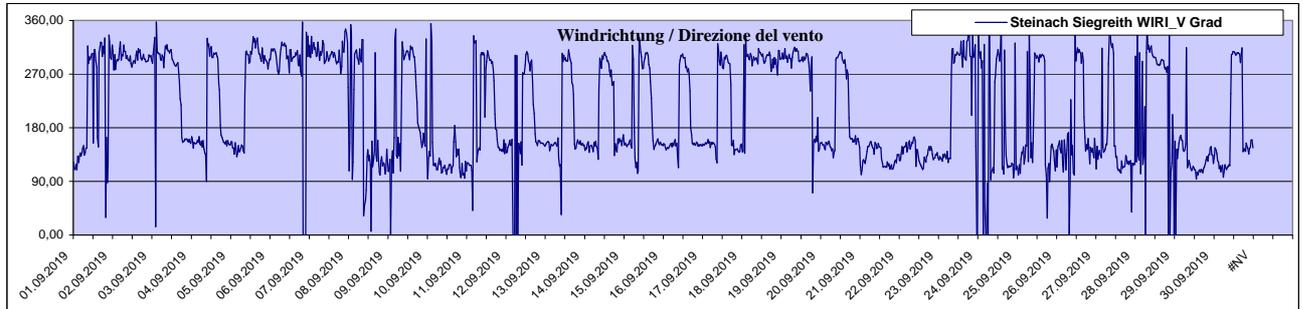
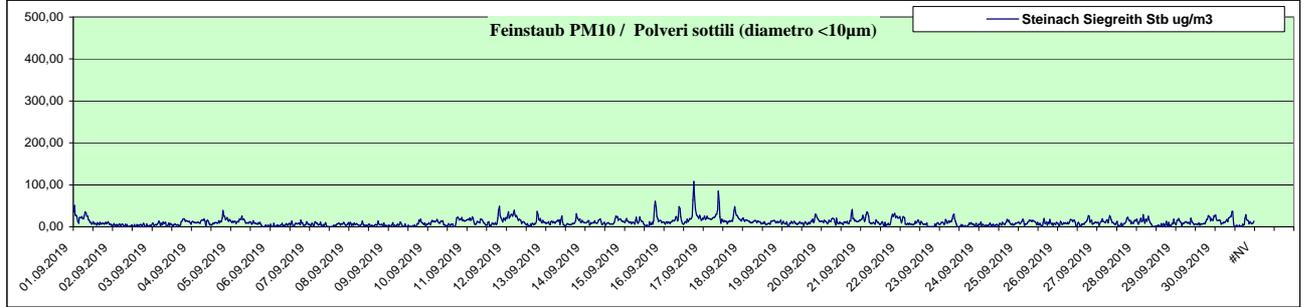
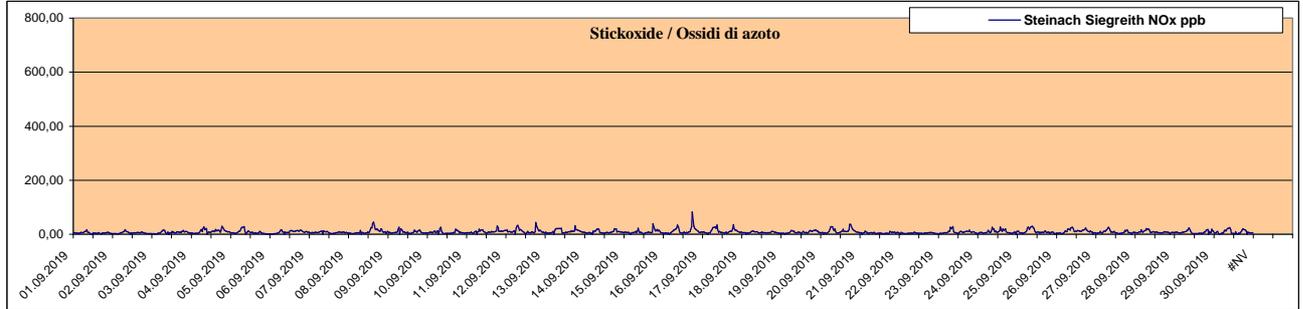
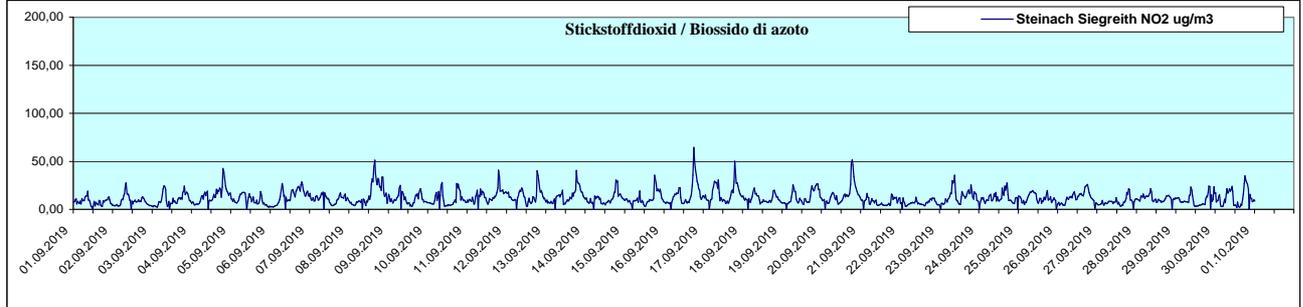
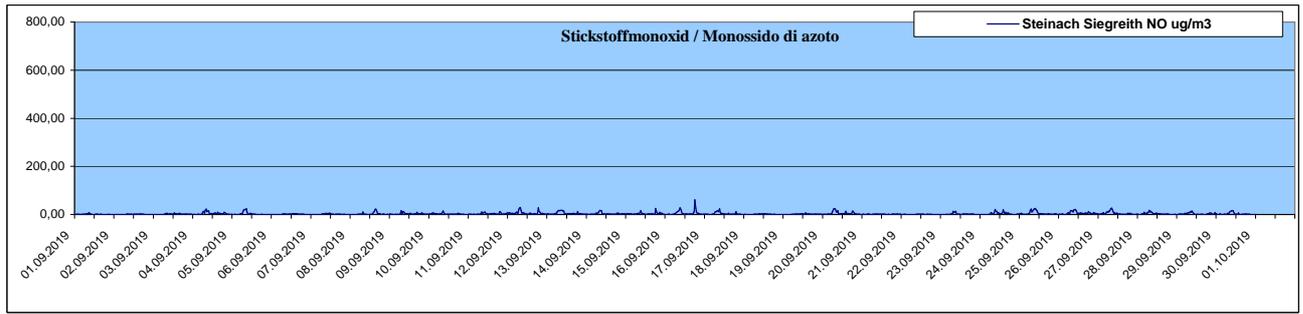
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	82,34	7,71	18,70	46,66	0		0	
Innsbruck Sillhöfe	106,86	9,88	25,63	62,35	0		0	
Steinach Siegreith	61,53	3,16	6,34	20,09	0		0	
Steinach Saxen	72,25	9,00	16,35	41,42	0		0	
Ampass	162,40	18,28	35,19	75,09	0		0	
Tulfes	63,75	4,56	11,65	35,73	0		0	

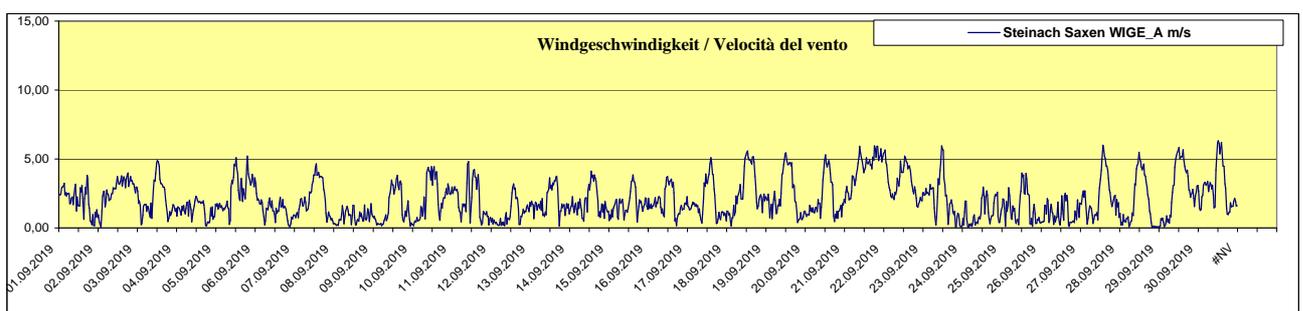
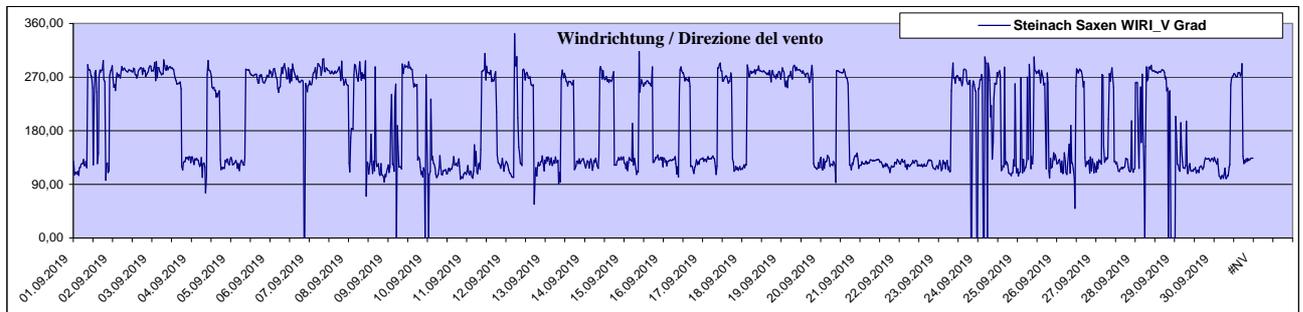
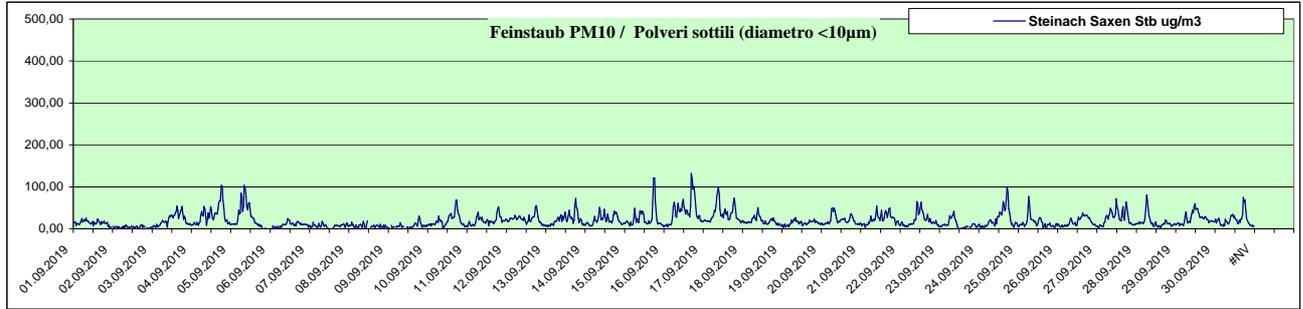
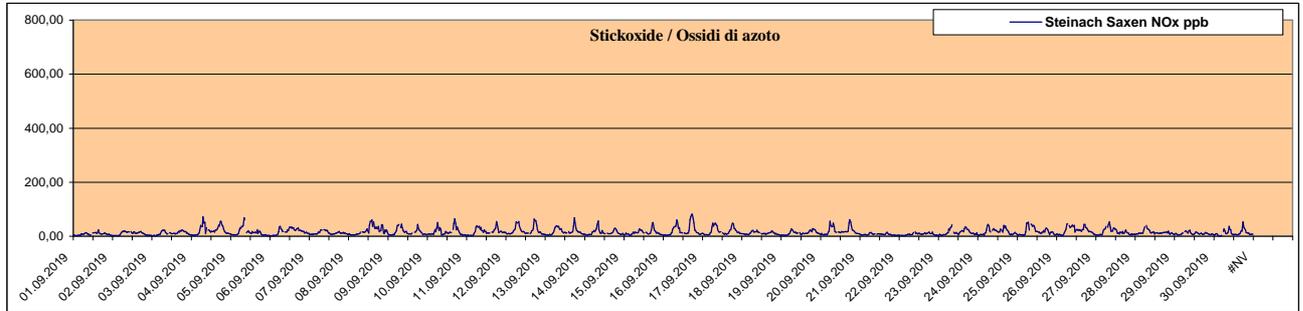
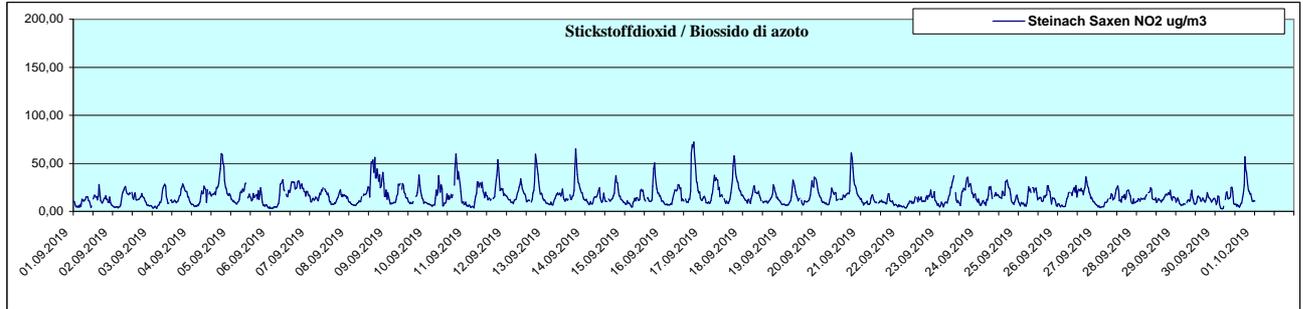
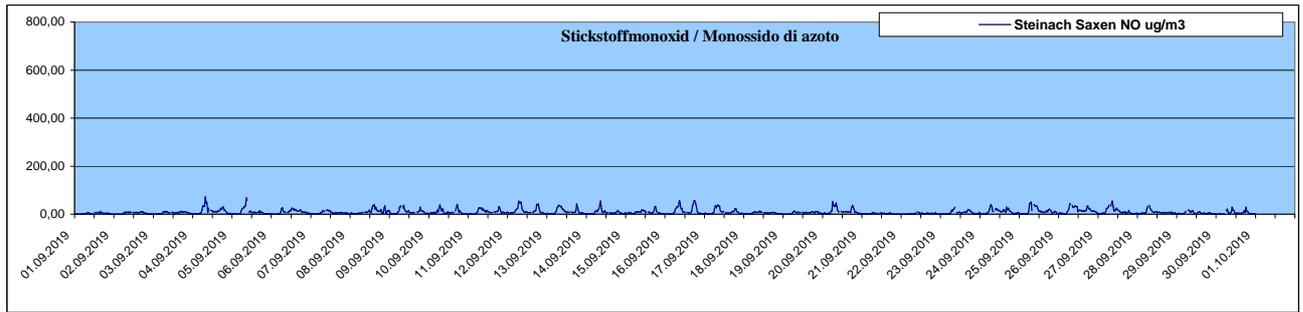
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	50,20	19,63	28,04	40,63	0		0	
Innsbruck Sillhöfe	70,11	18,18	25,08	44,15	0		0	
Steinach Siegreith	64,55	12,05	16,88	32,01	0		0	
Steinach Saxen	71,93	15,95	22,87	46,68	0		0	
Ampass	64,56	21,29	32,53	53,96	0		0	
Tulfes	45,89	10,35	18,32	30,81	0		0	

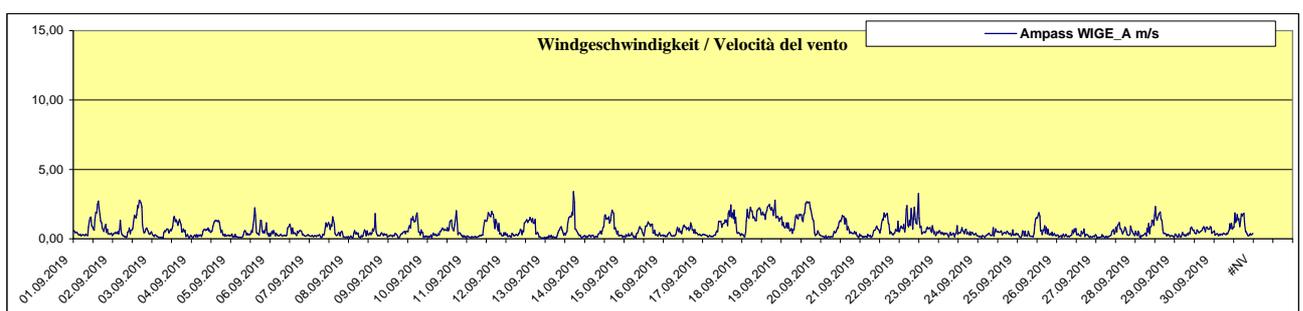
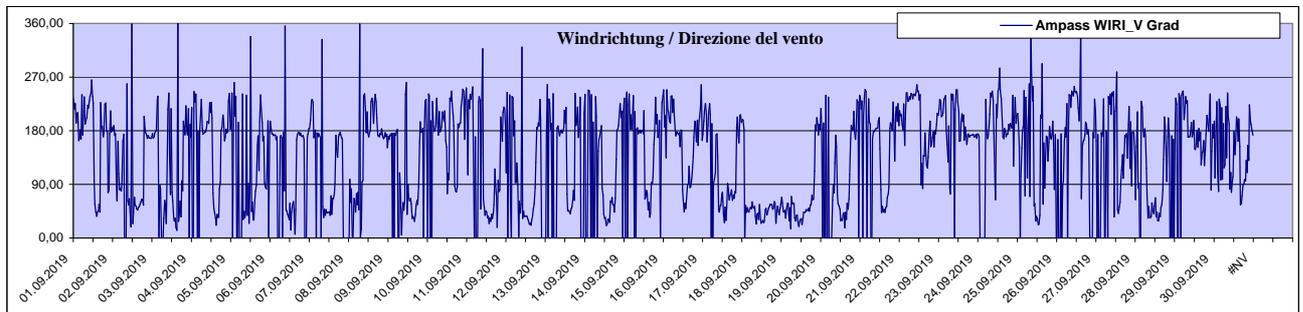
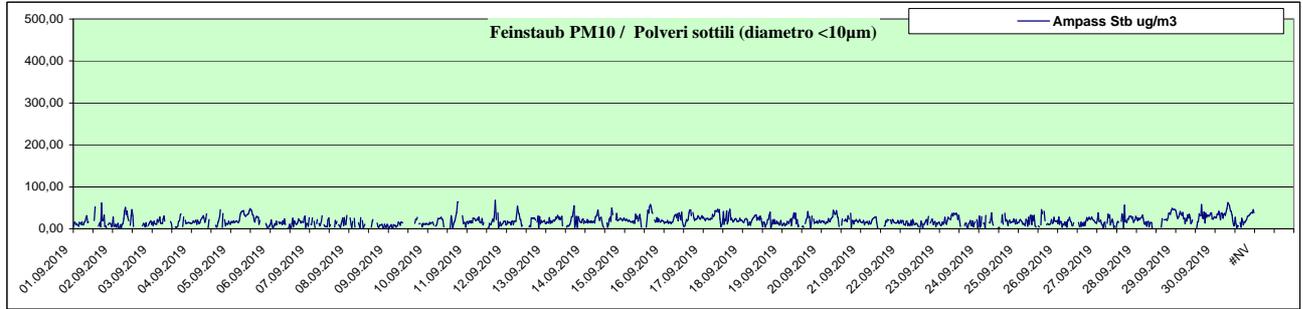
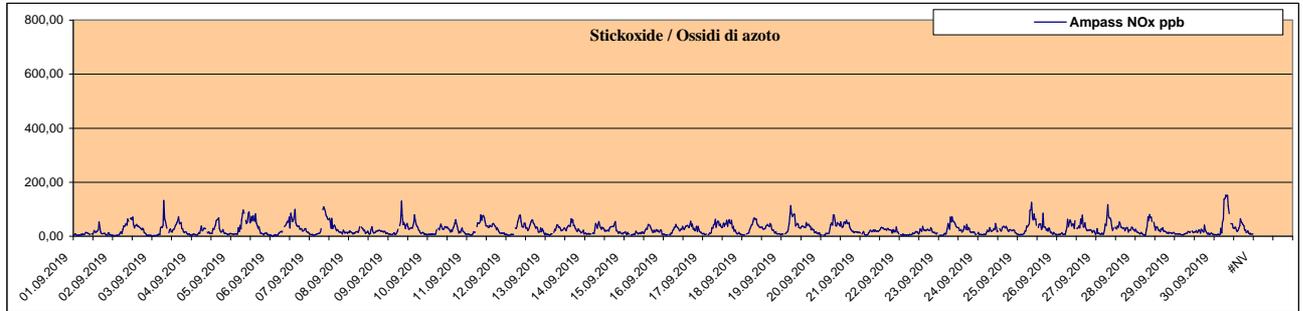
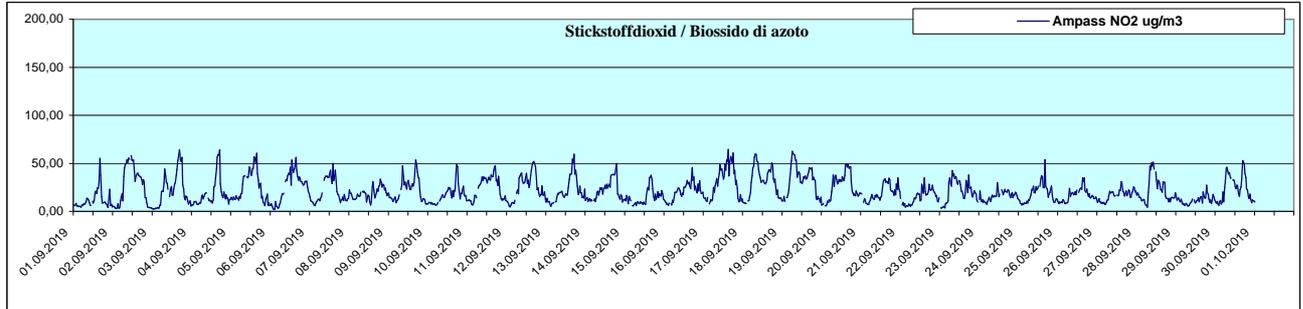
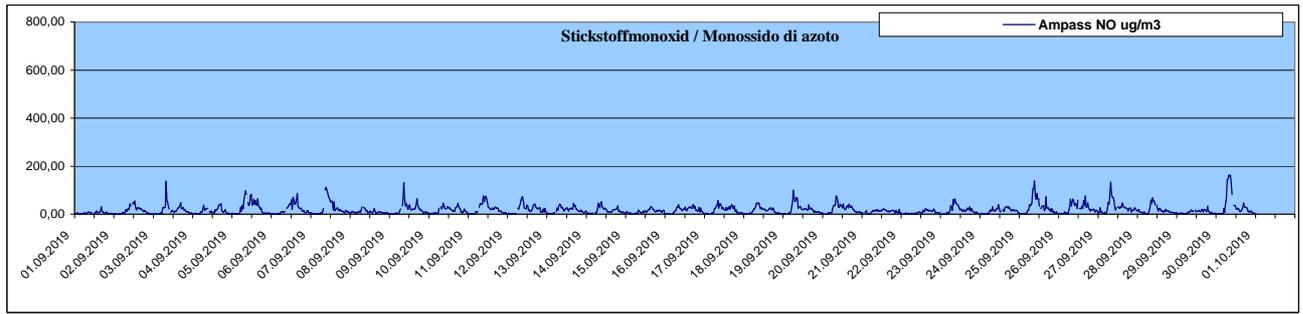
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	86,50	12,91	18,37	30,20	0		0	
Innsbruck Sillhöfe	94,40	11,30	19,78	34,10	0		0	
Steinach Siegreith	108,10	11,33	22,33	33,20	0		0	
Steinach Saxen	131,60	19,86	40,59	68,80	0		0	
Ampass	67,80	18,95	28,99	45,70	0		0	
Tulfes	38,30	9,48	18,91	23,90	0		0	

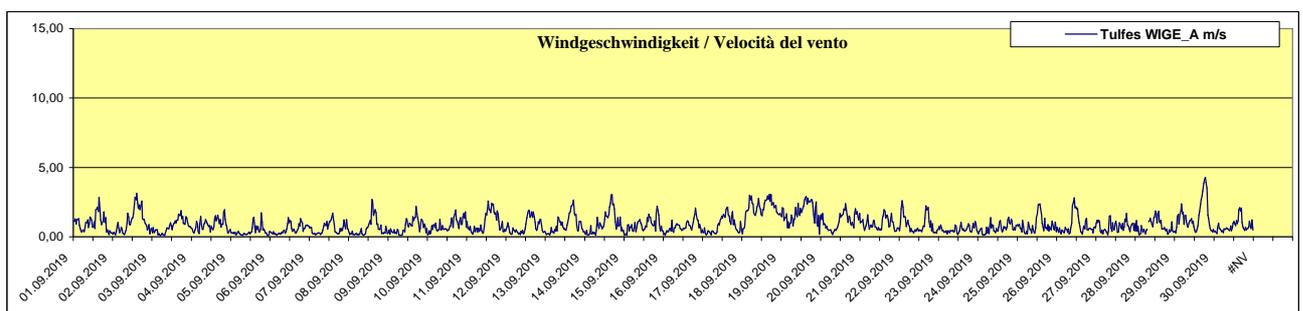
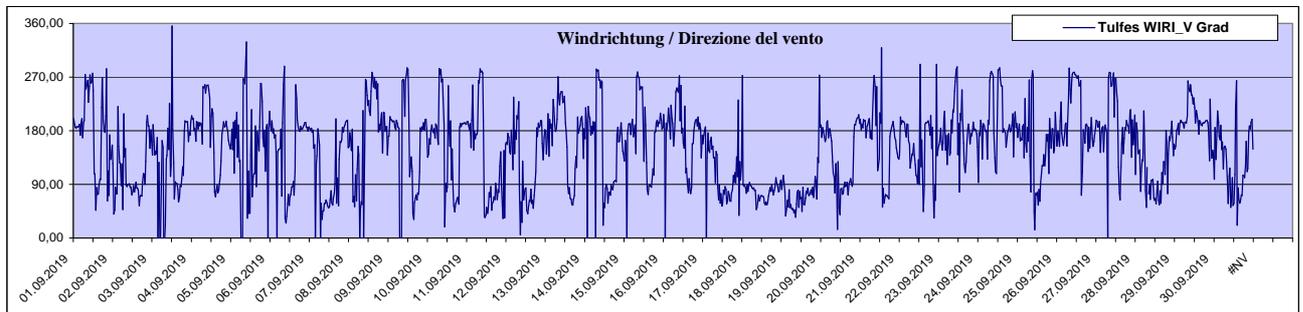
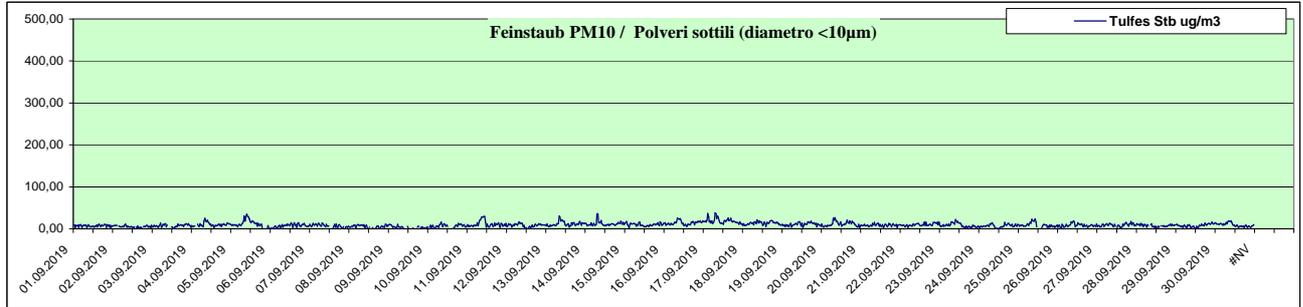
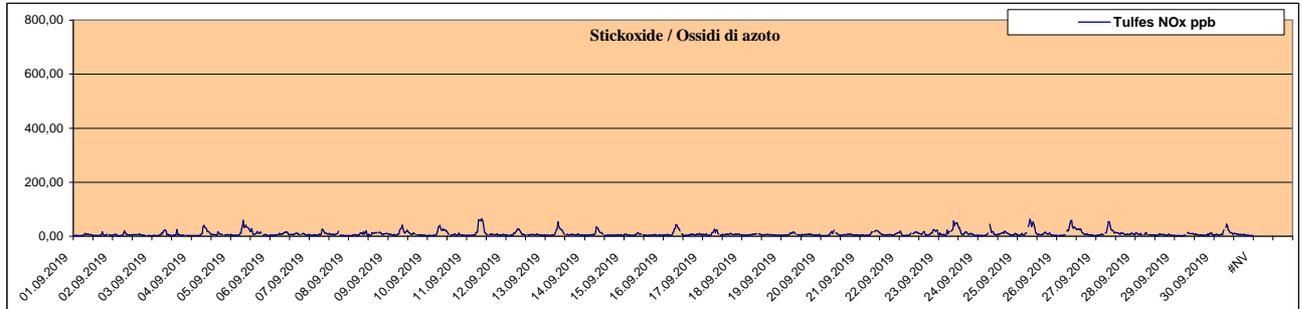
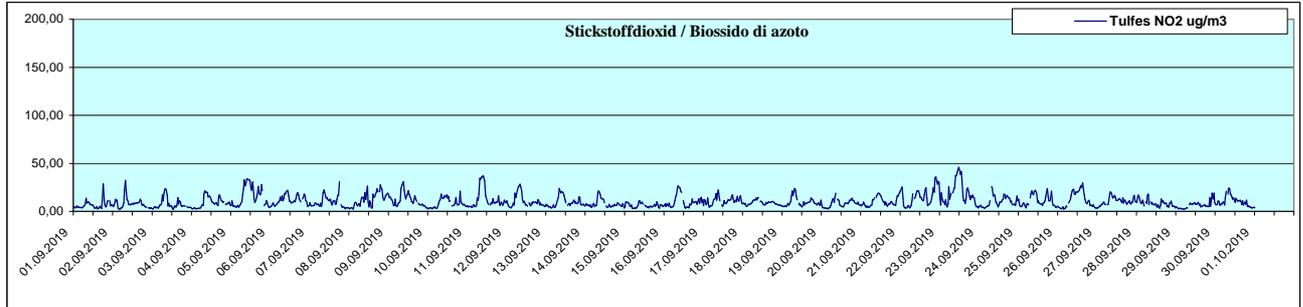
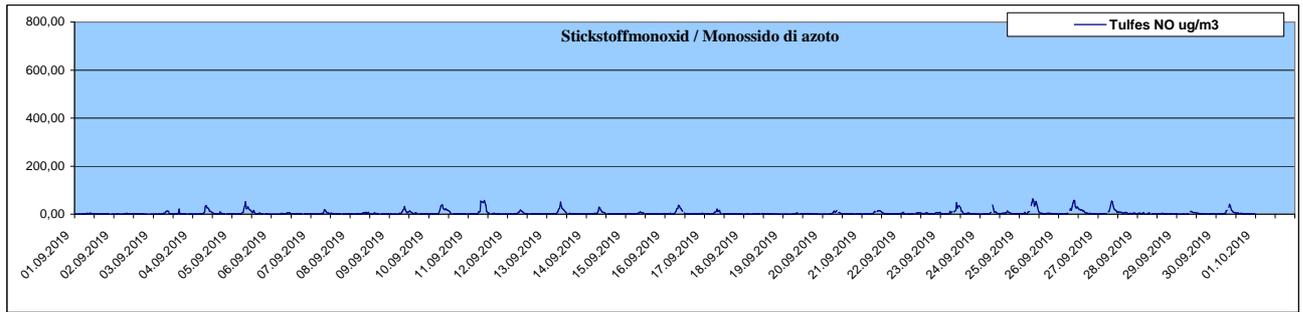




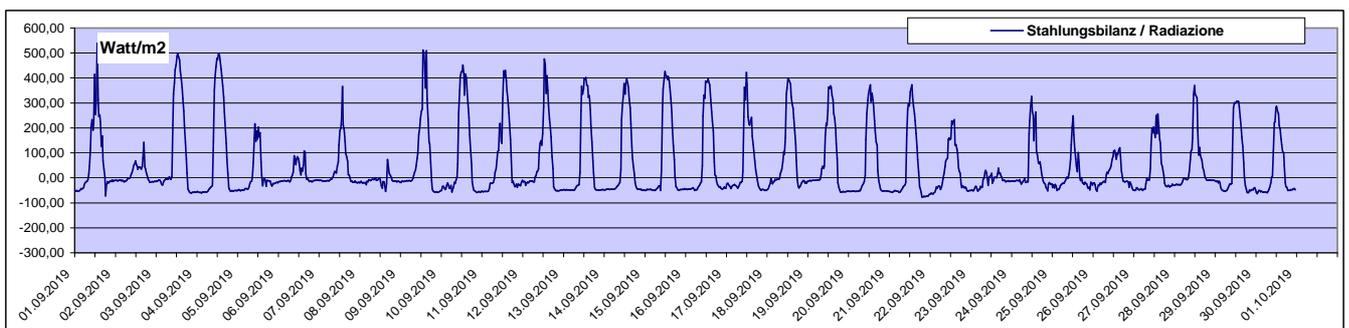
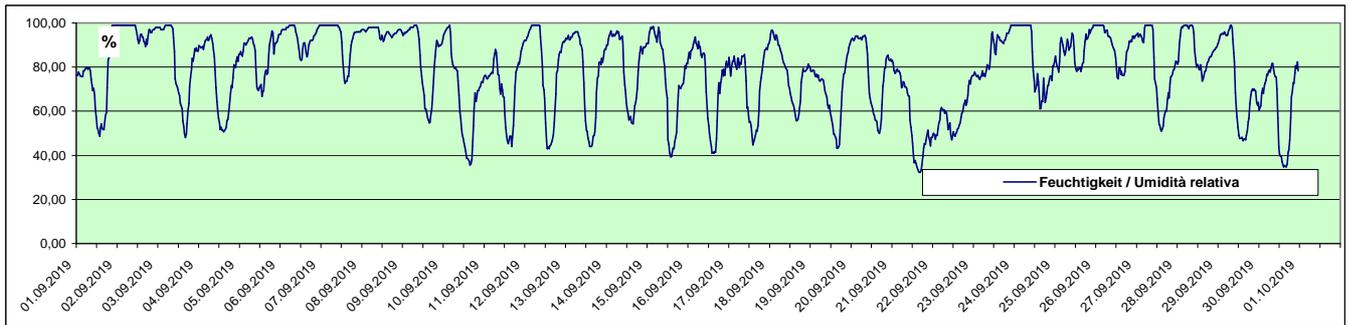
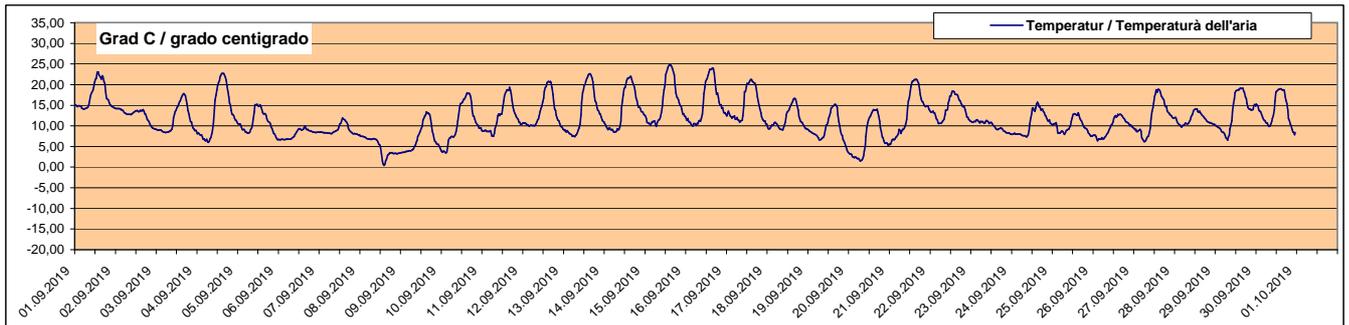
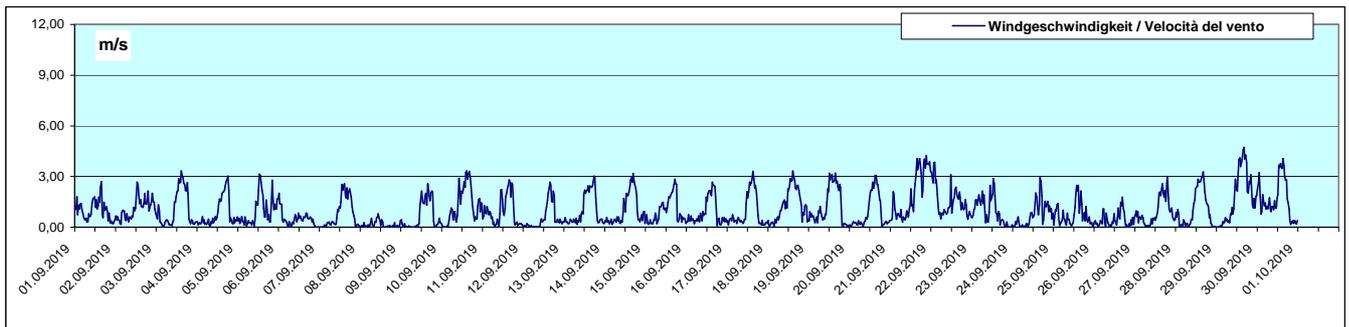
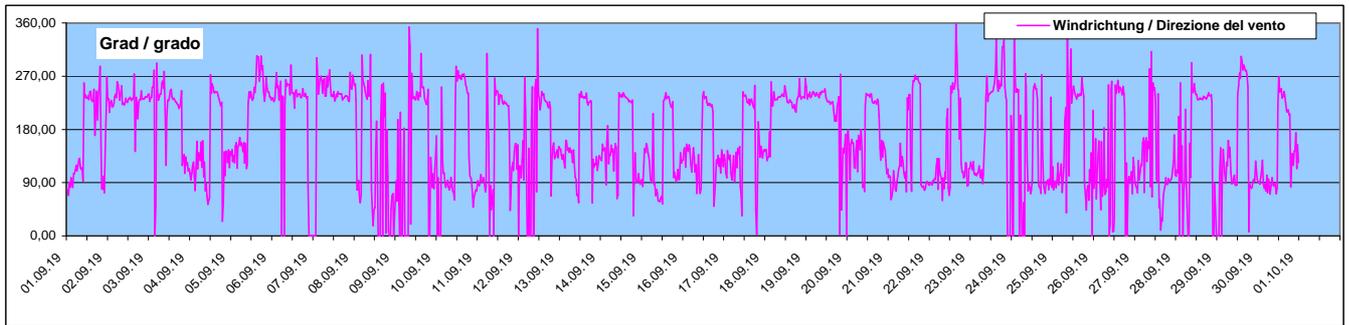








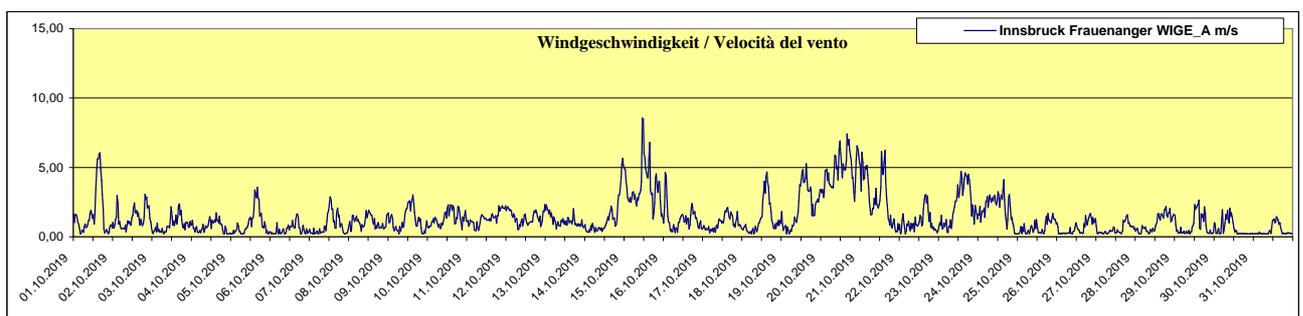
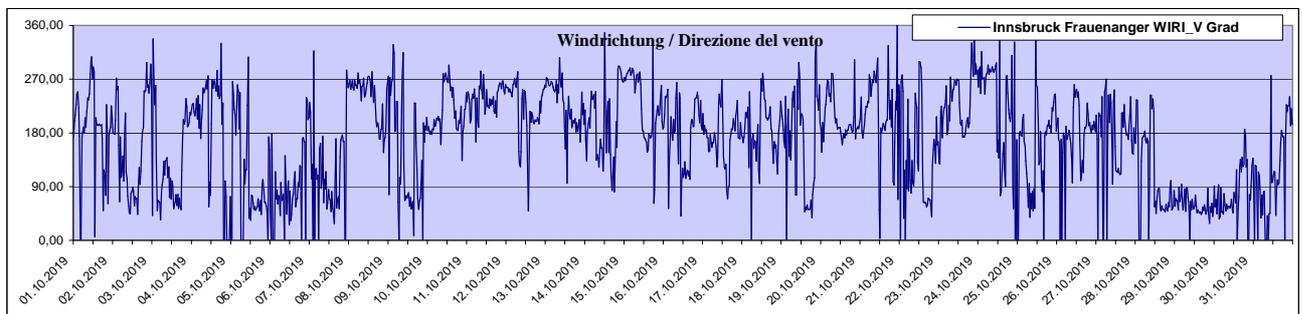
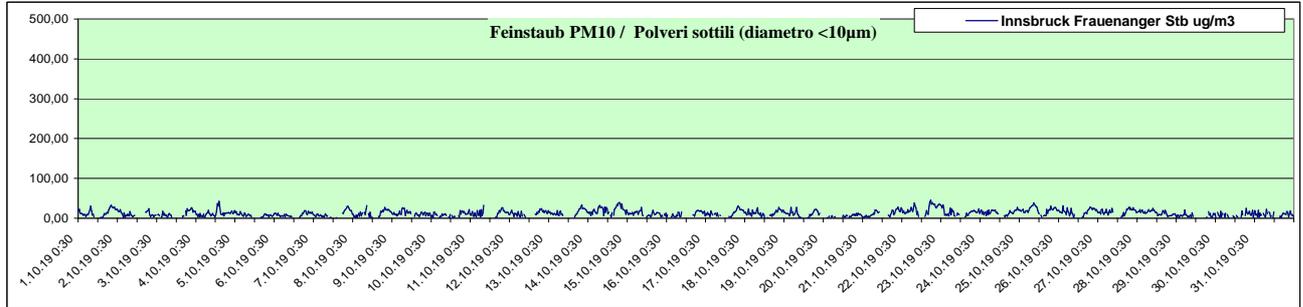
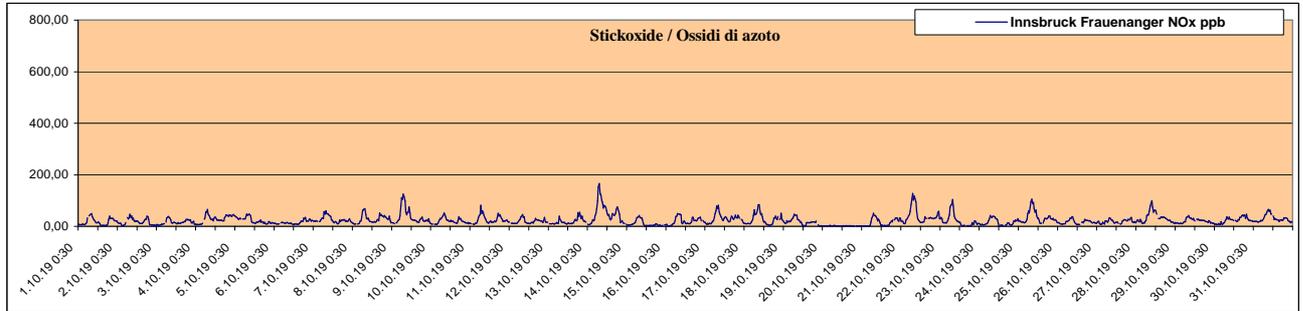
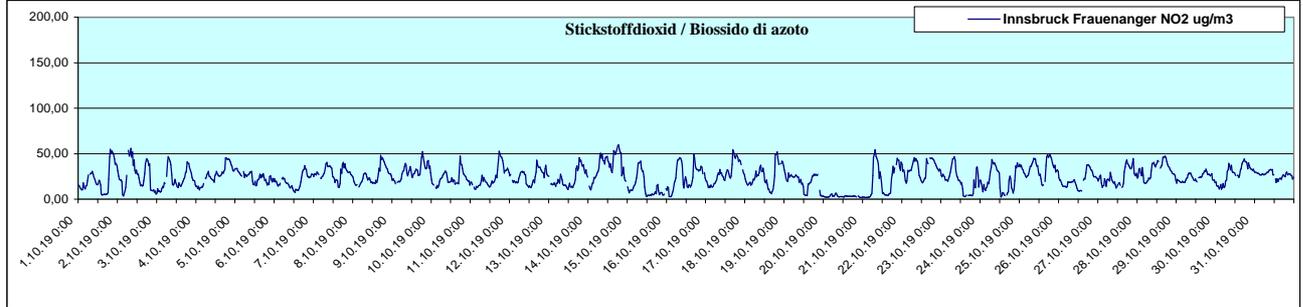
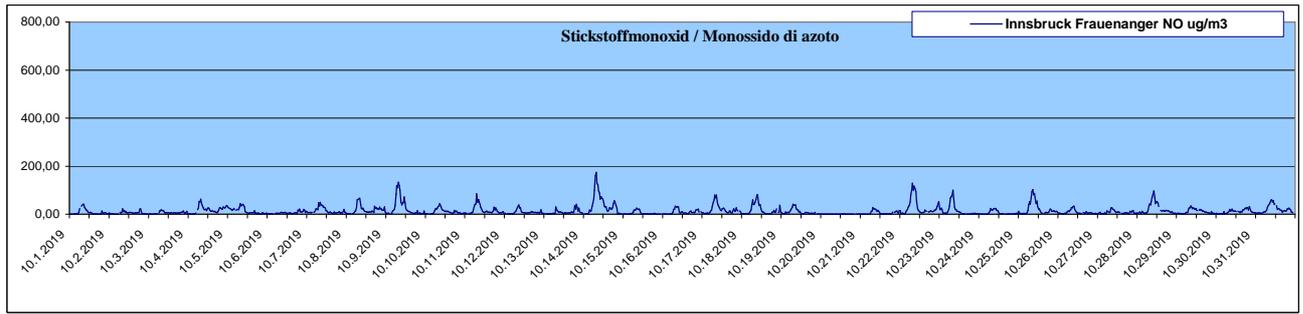
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal September 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal settembre 2019

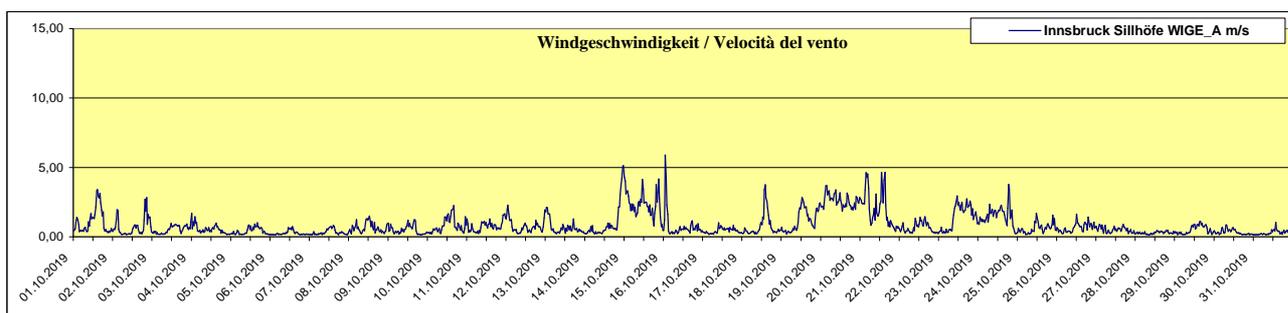
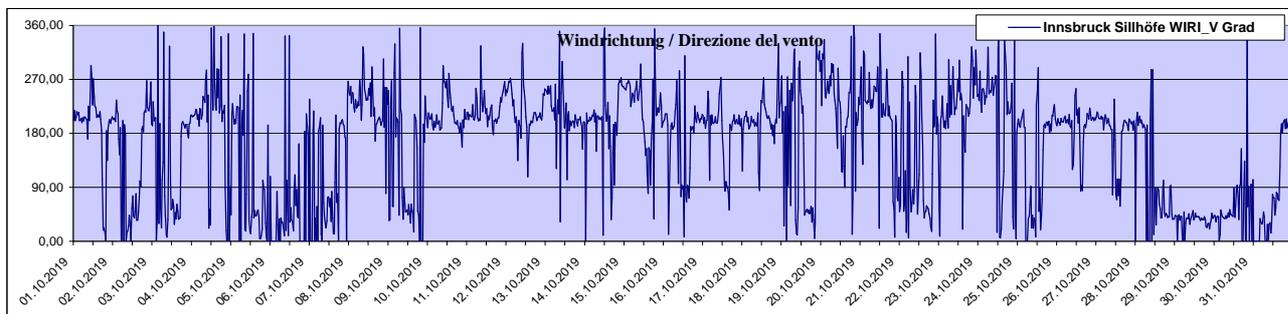
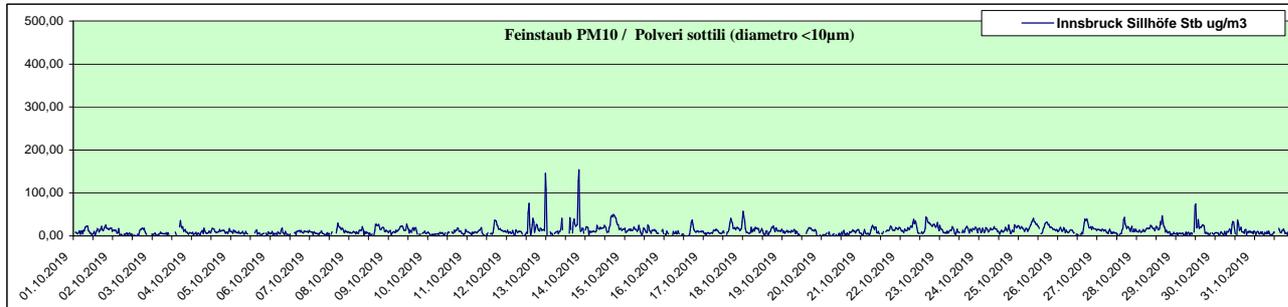
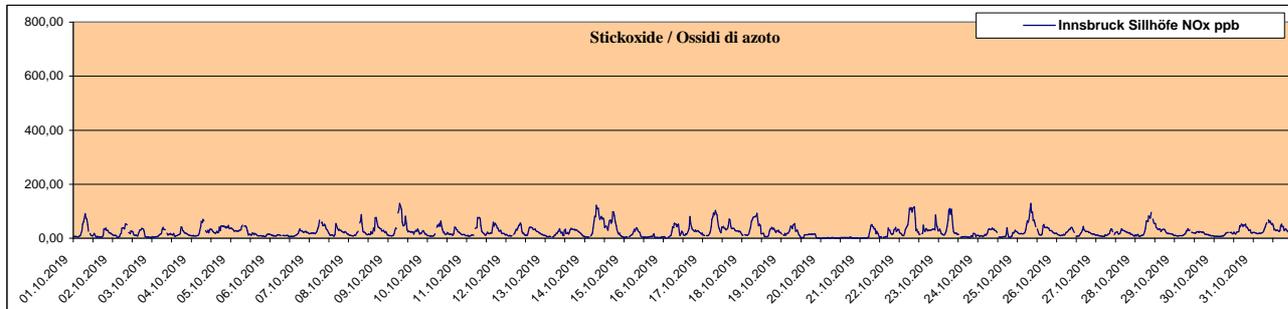
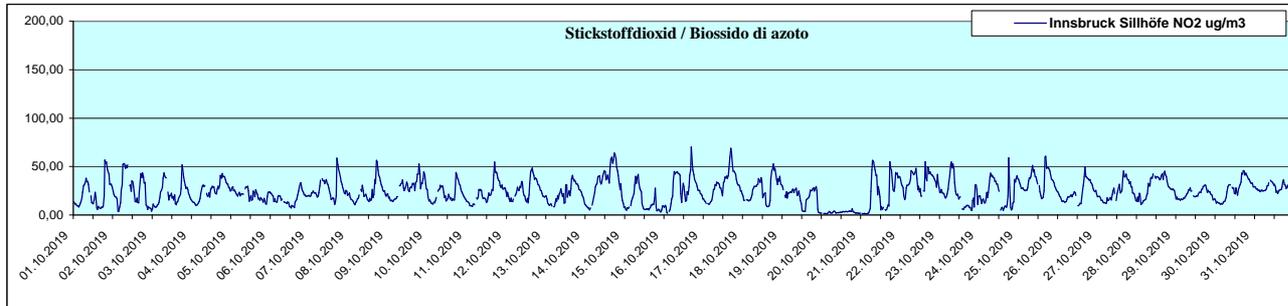
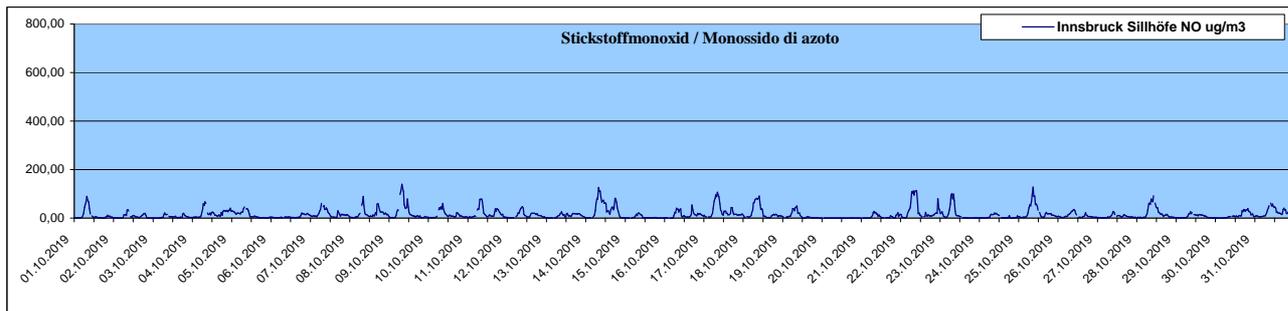


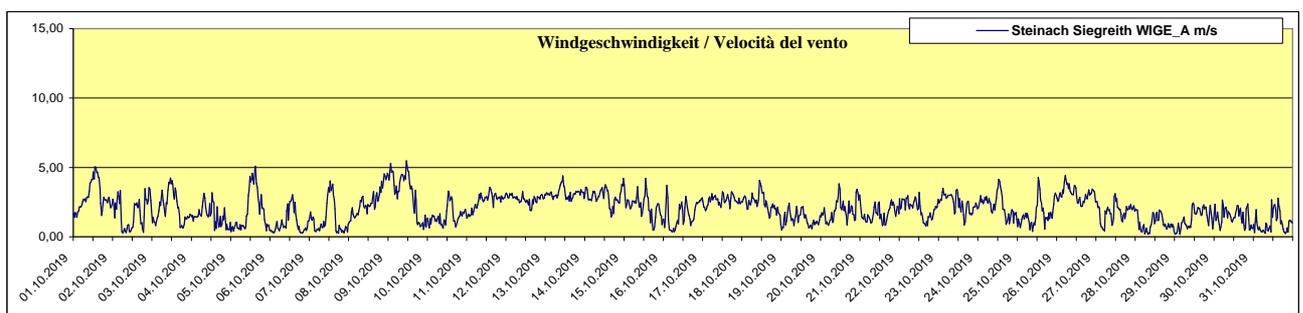
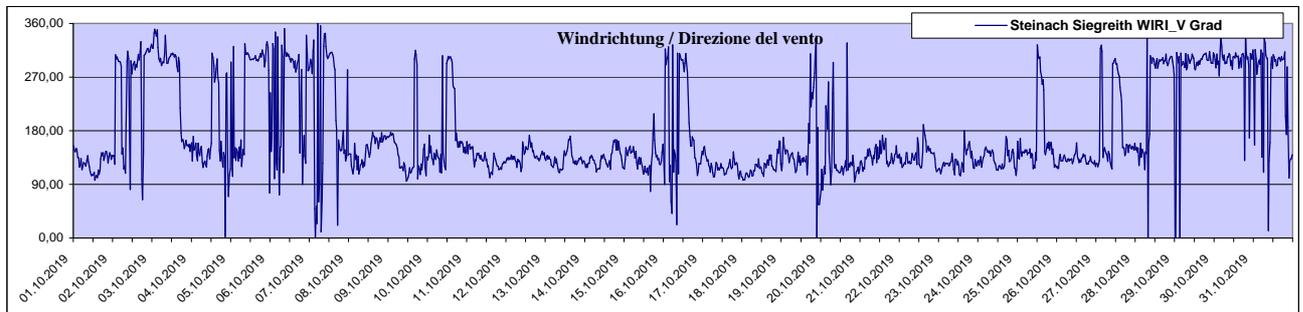
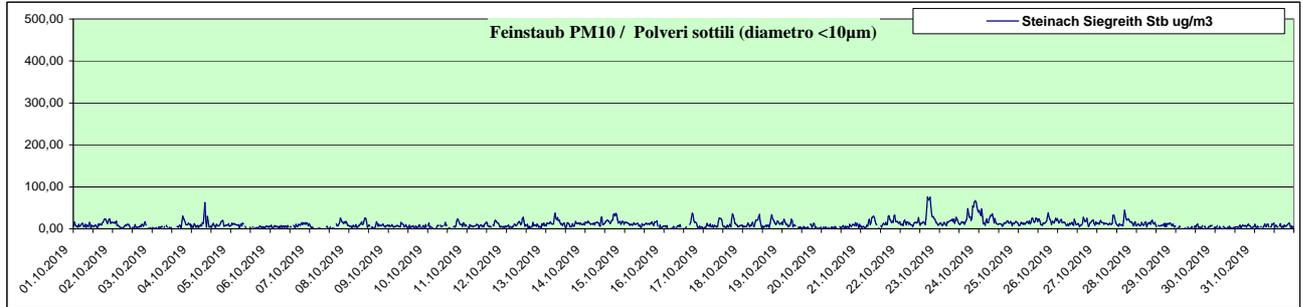
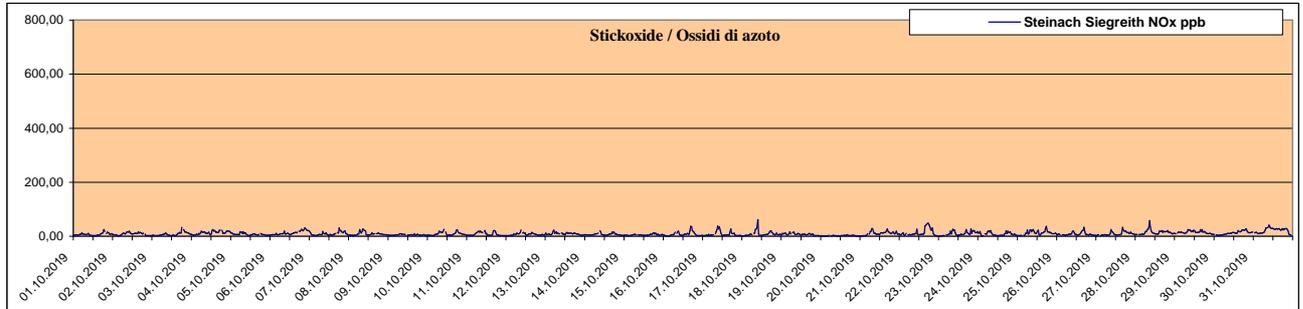
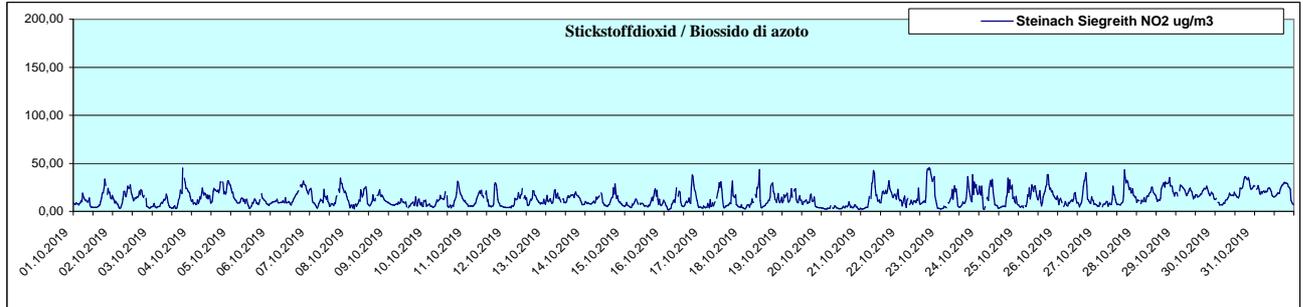
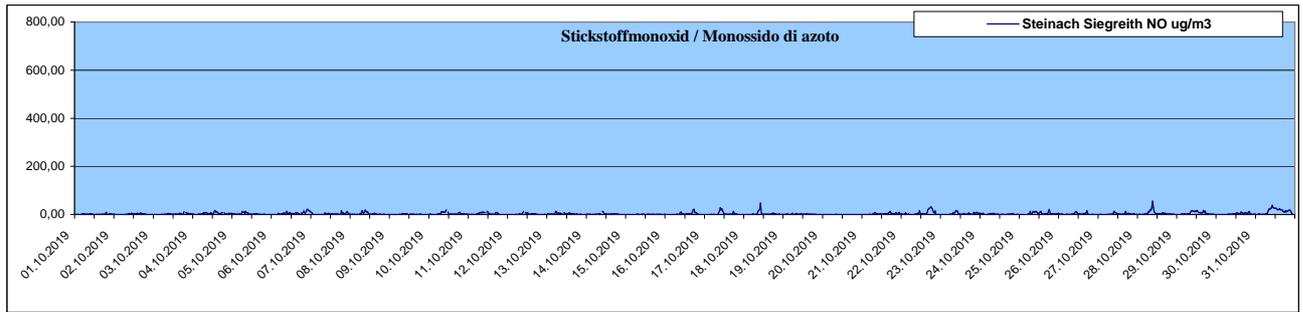
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	174,63	13,60	39,73	80,37	0		0	
Innsbruck Sillhöfe	139,21	14,95	37,39	88,22	0		0	
Steinach Siegreith	55,39	3,29	13,12	20,74	0		0	
Steinach Saxen	75,52	9,93	23,00	42,74	0		0	
Ampass	203,95	26,88	52,95	118,67	1		0	
Tulfes	91,27	7,27	15,18	44,45	0		0	

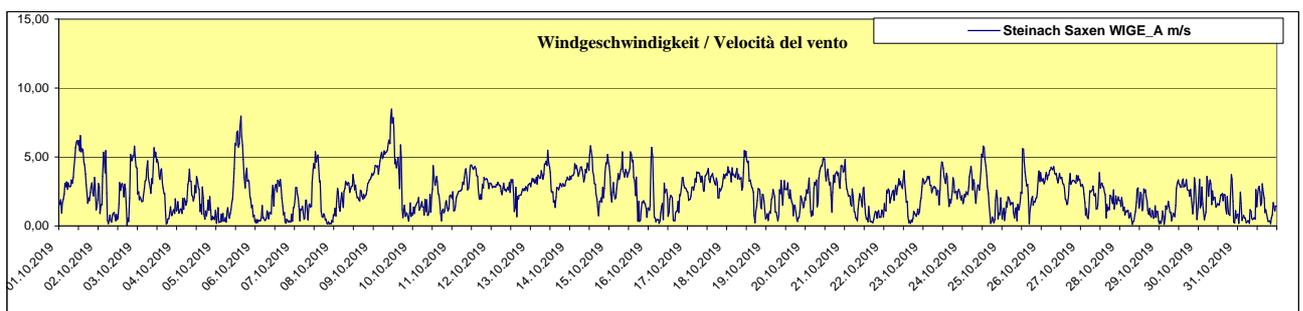
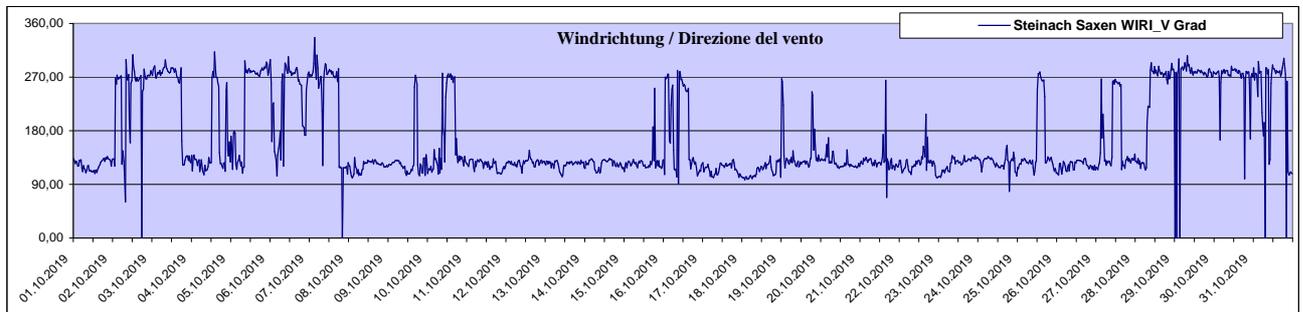
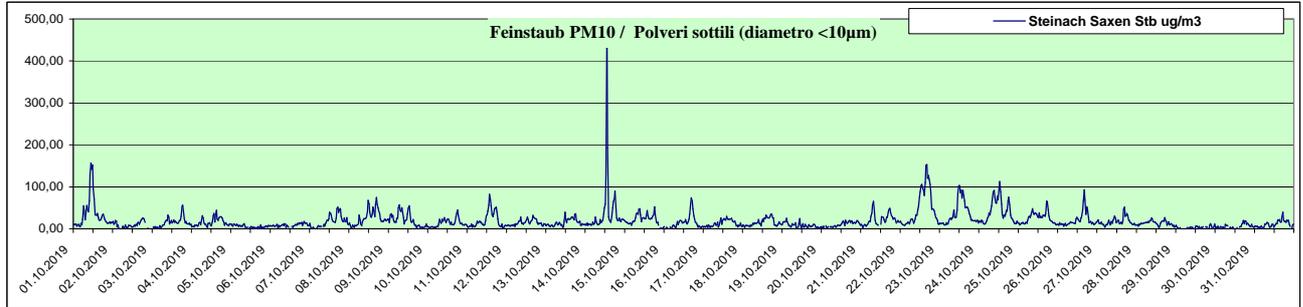
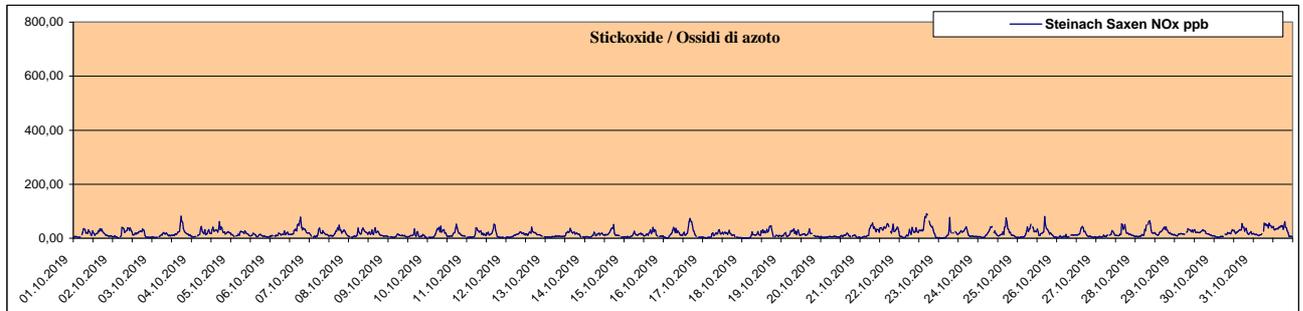
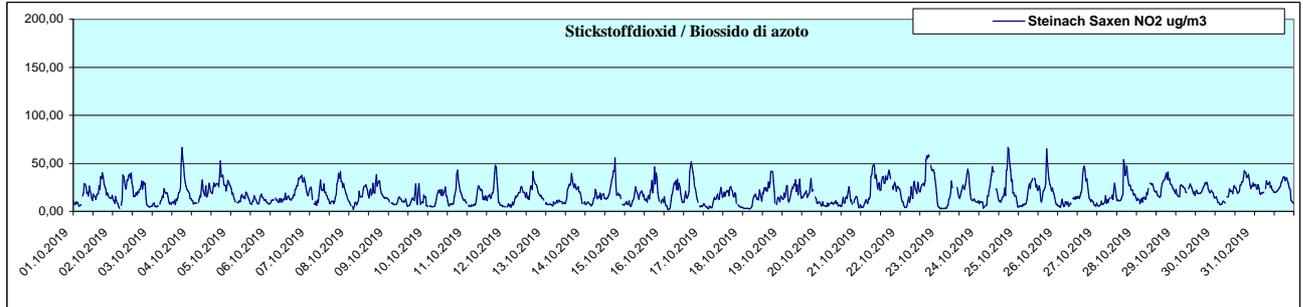
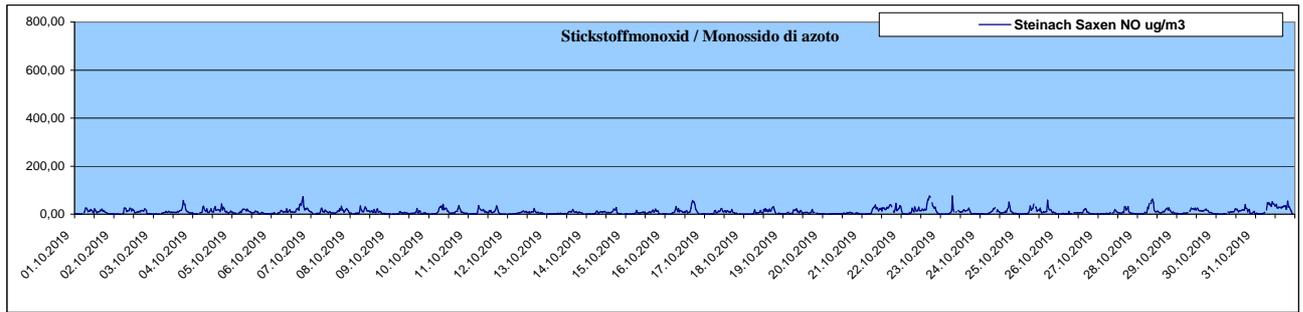
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	59,70	24,33	35,87	49,19	0		0	
Innsbruck Sillhöfe	70,12	24,09	34,41	52,79	0		0	
Steinach Siegreith	45,49	13,36	21,09	33,90	0		0	
Steinach Saxen	66,45	18,19	26,43	46,19	0		0	
Ampass	72,12	25,32	36,12	53,95	0		0	
Tulfes	56,78	14,45	25,58	36,82	0		0	

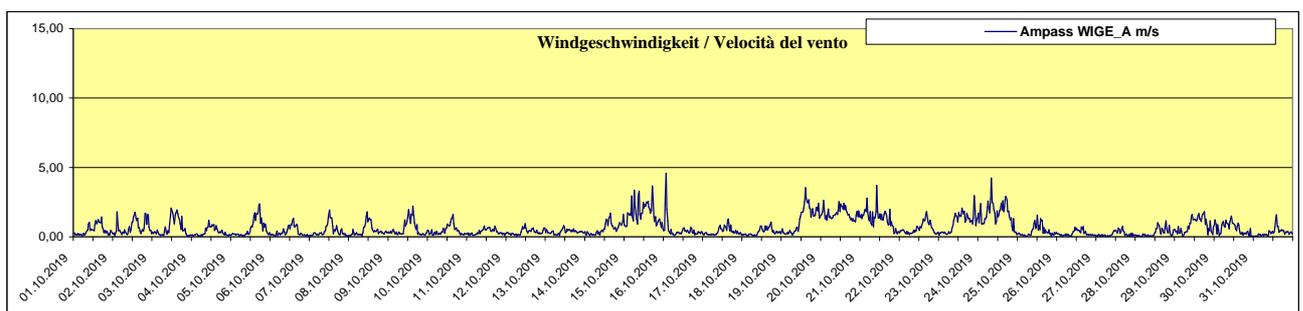
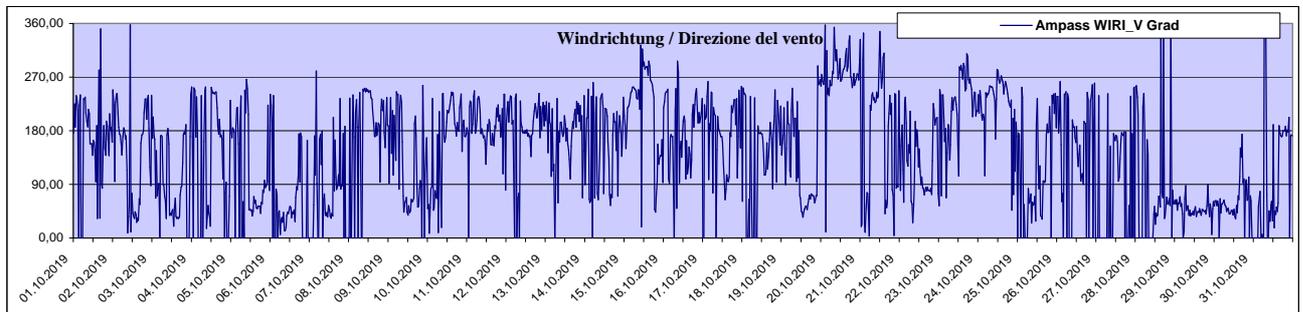
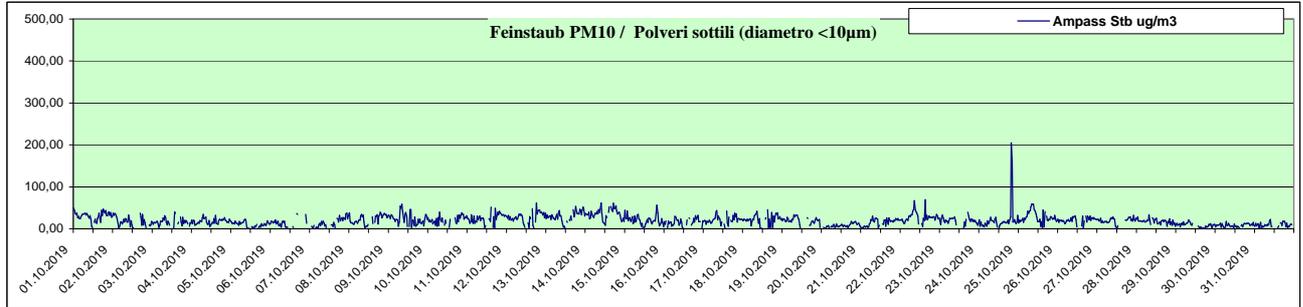
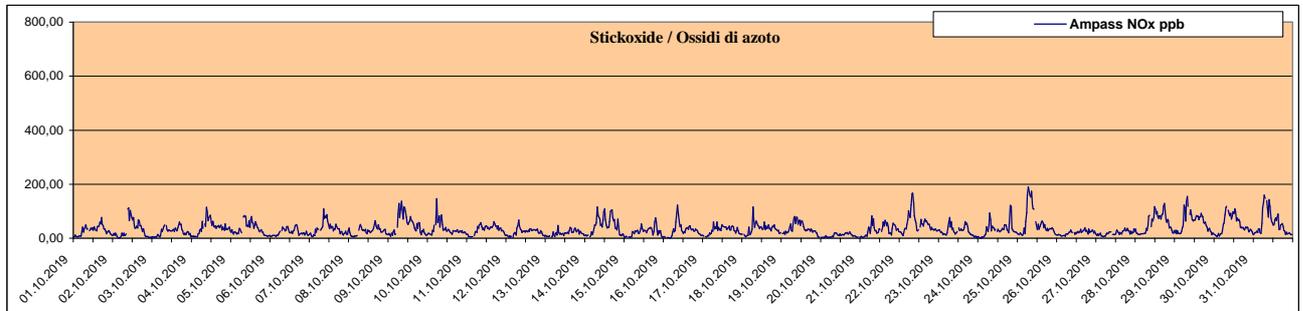
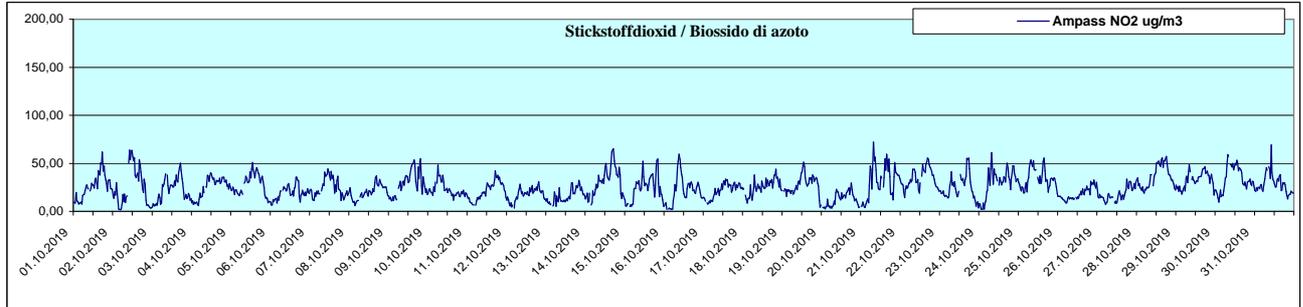
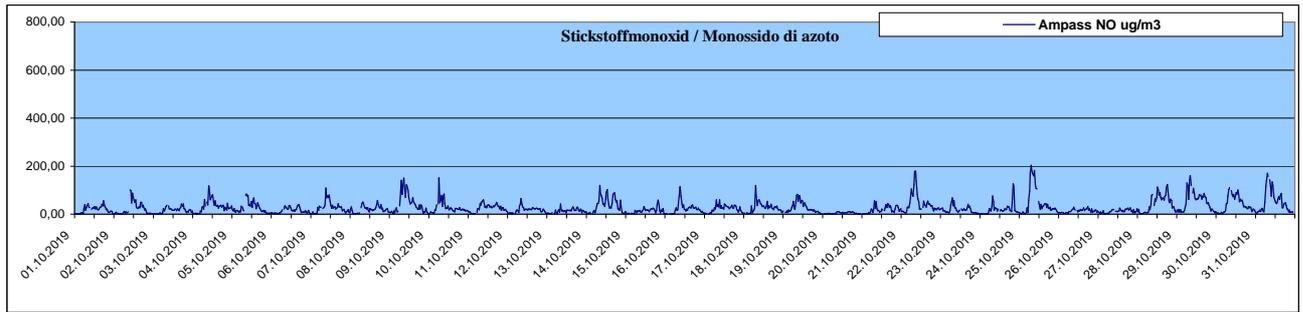
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	45,50	12,80	23,01	32,30	0		0	
Innsbruck Sillhöfe	153,50	12,38	20,54	39,30	0		0	
Steinach Siegreith	76,00	10,82	24,14	34,60	0		0	
Steinach Saxen	493,80	19,38	49,59	88,50	0		1	
Ampass	204,60	19,86	35,24	47,10	0		0	
Tulfes	47,70	10,47	19,89	27,00	0		0	

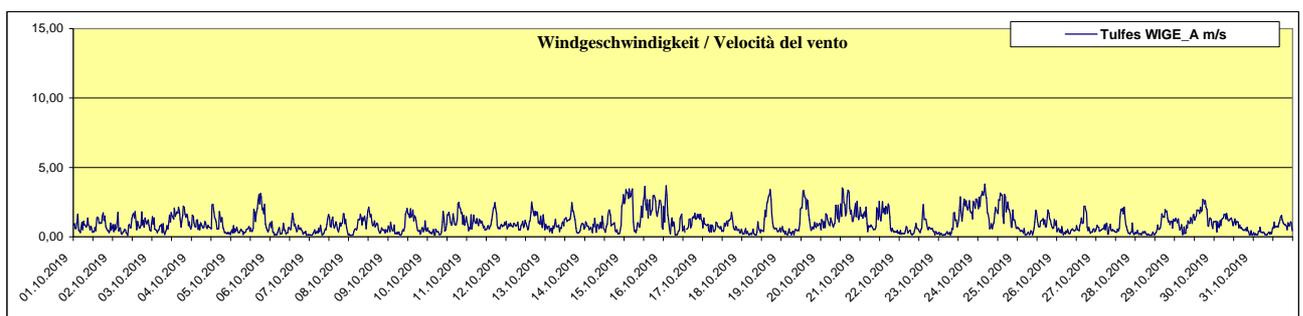
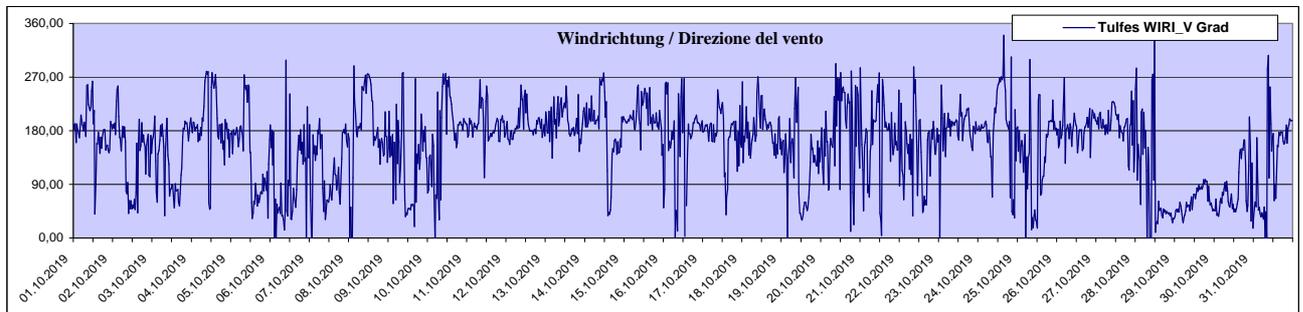
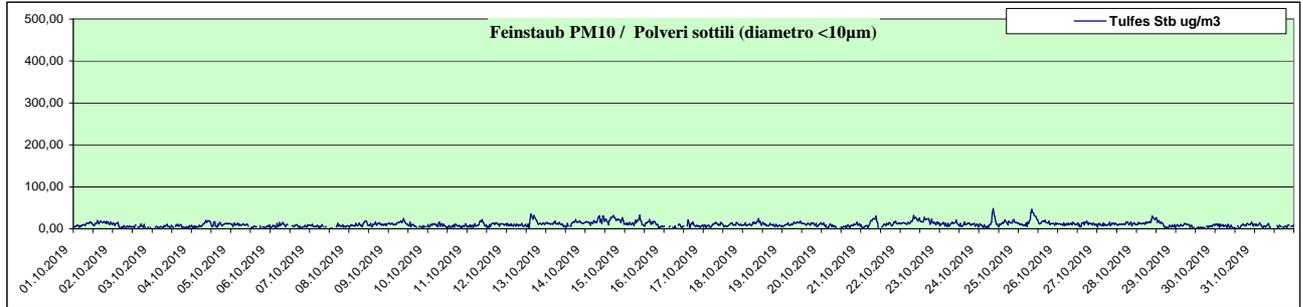
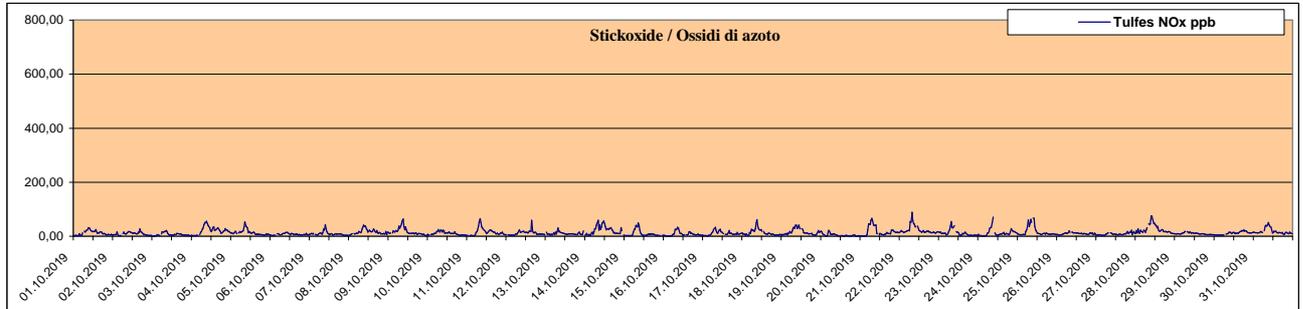
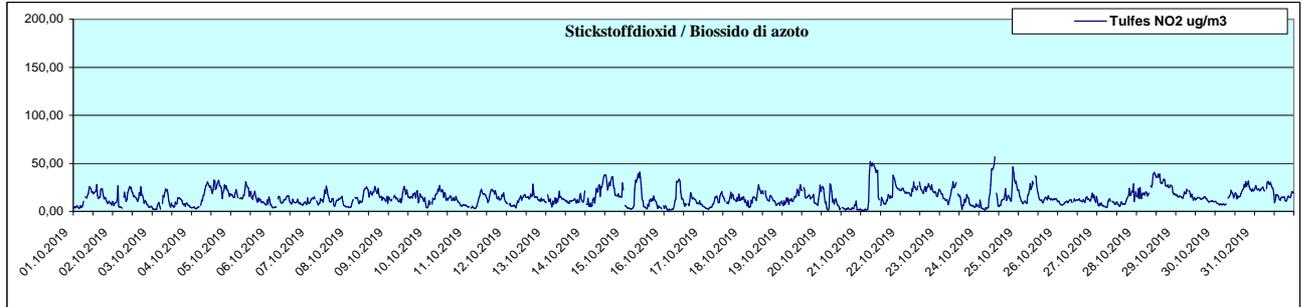
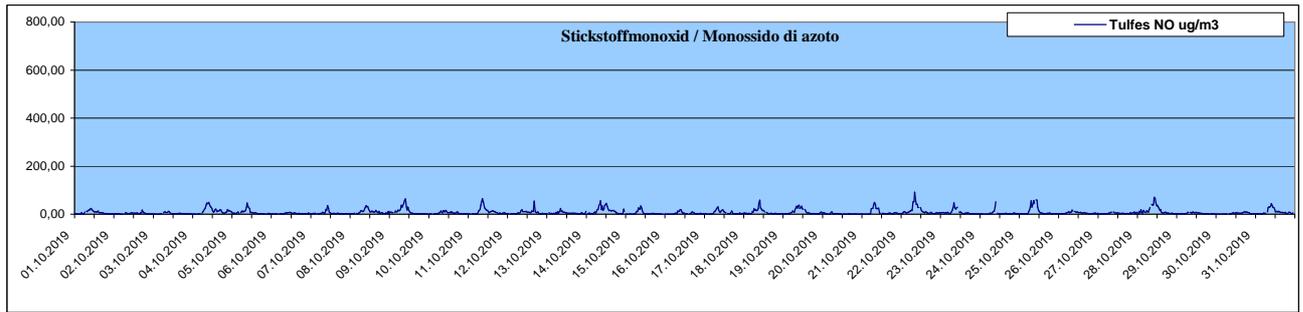




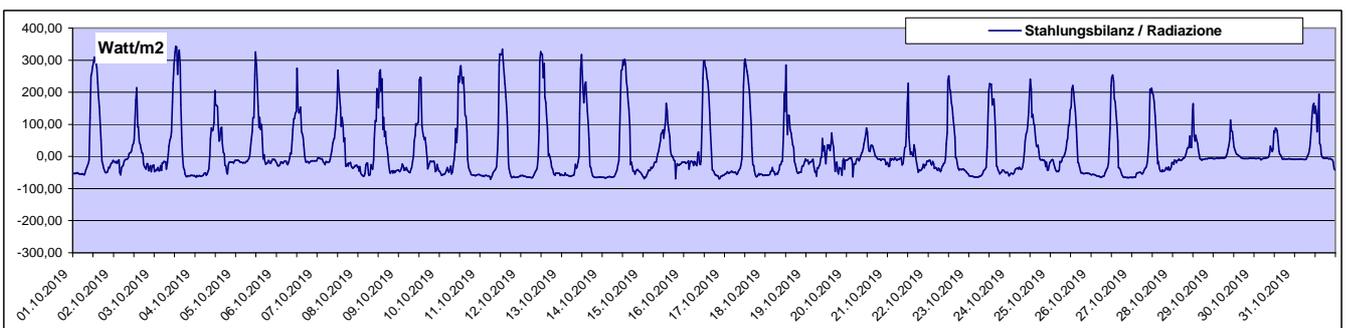
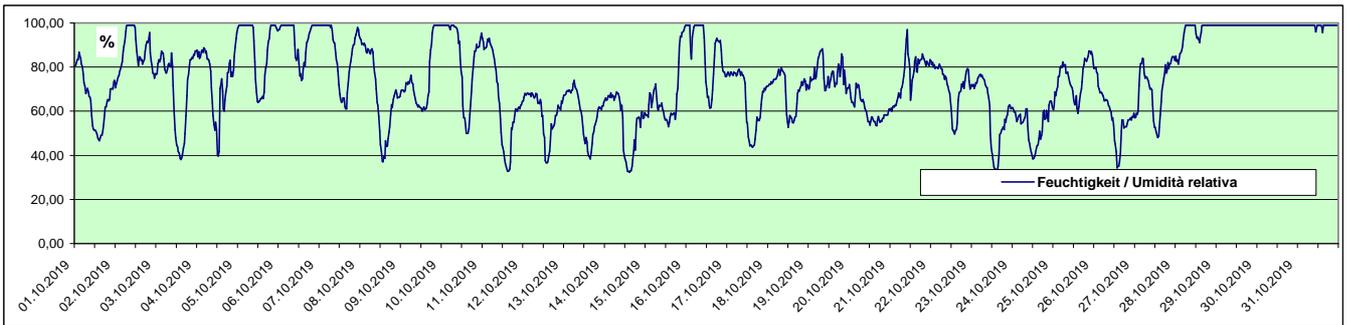
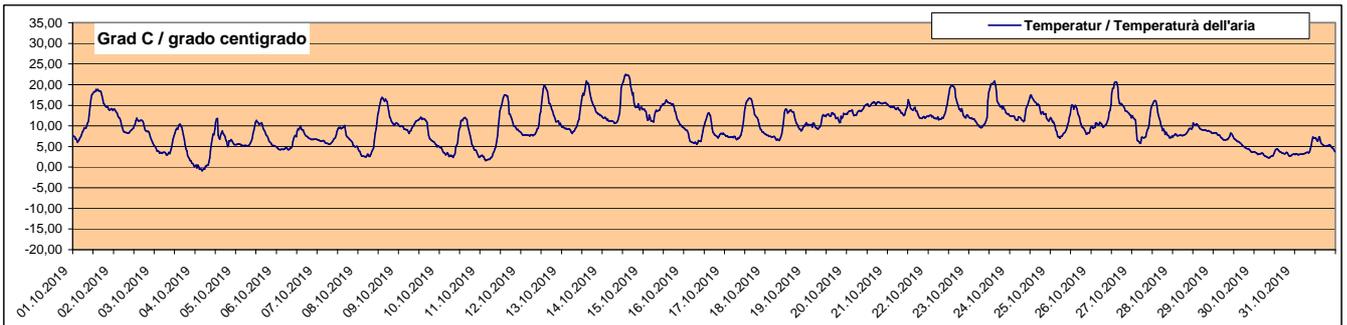
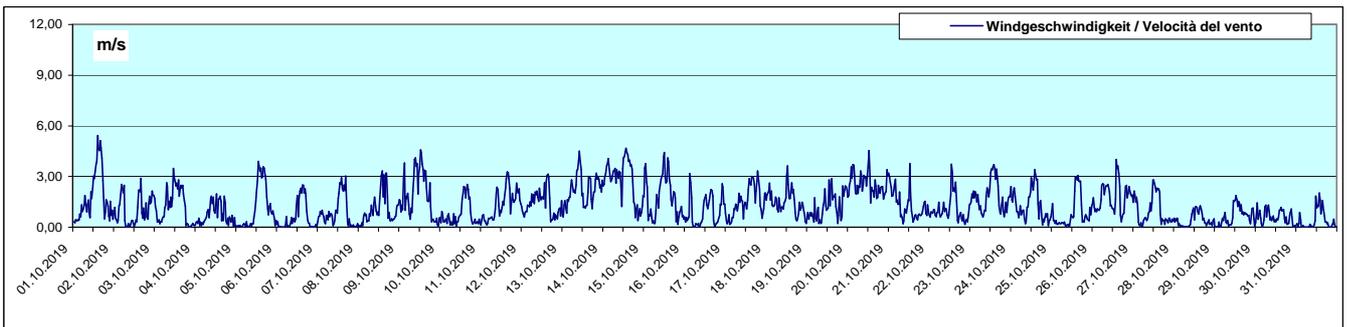
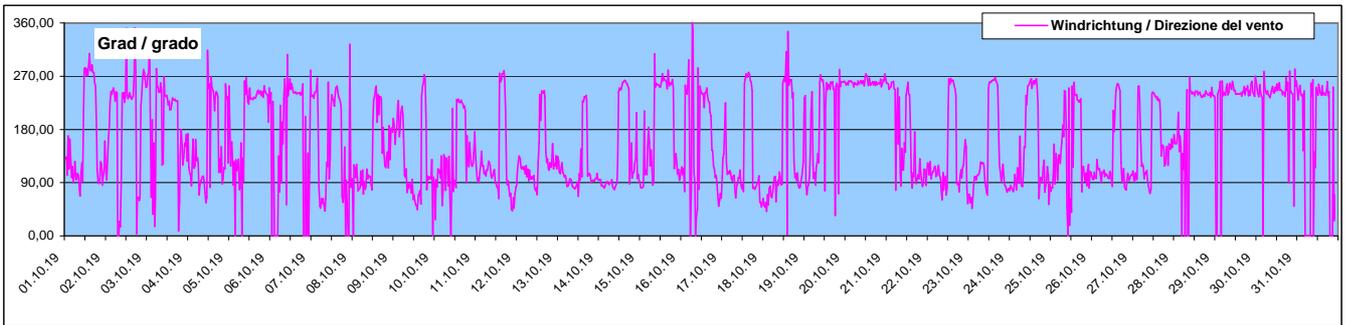








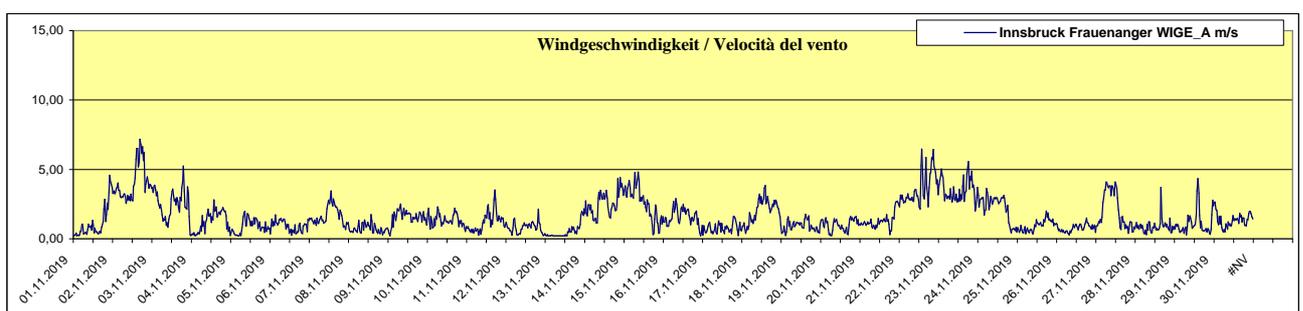
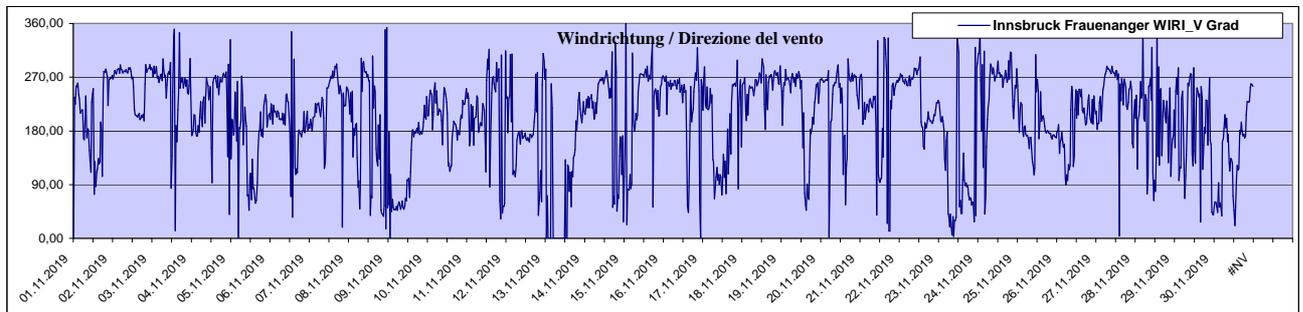
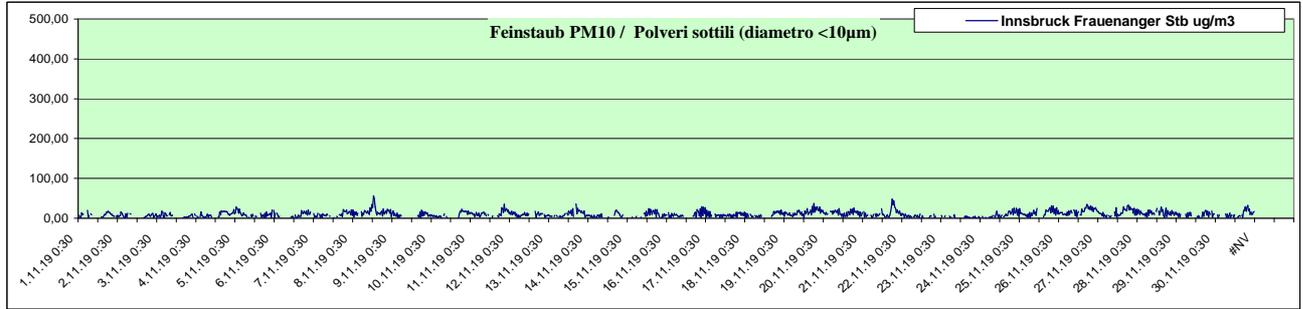
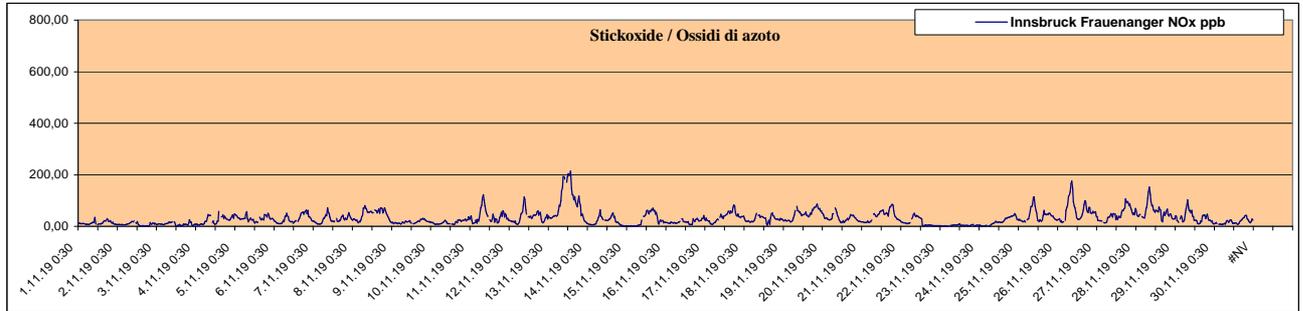
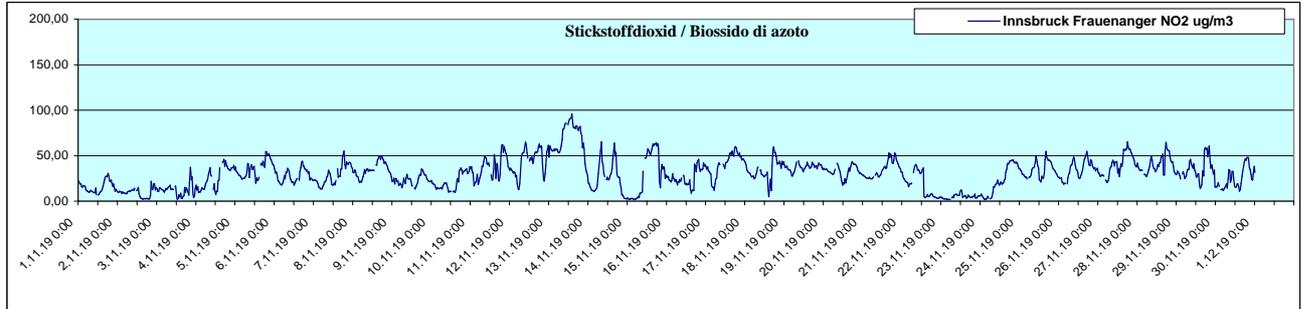
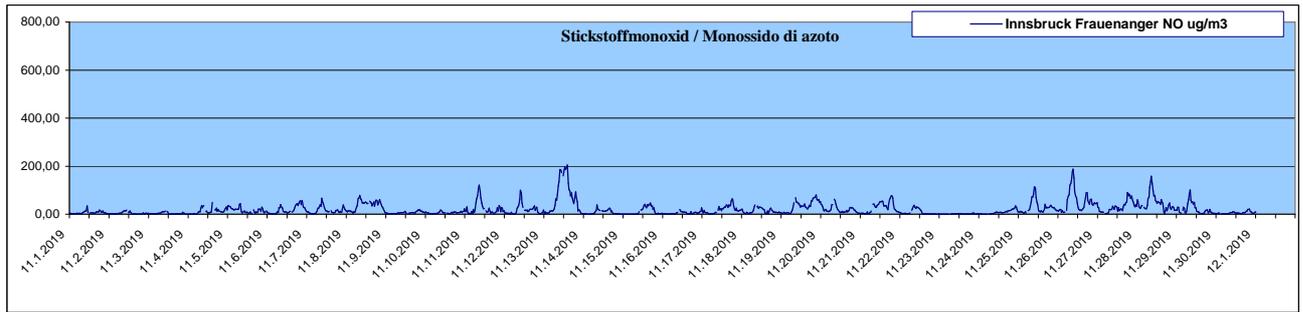
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Oktober 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal ottobre 2019

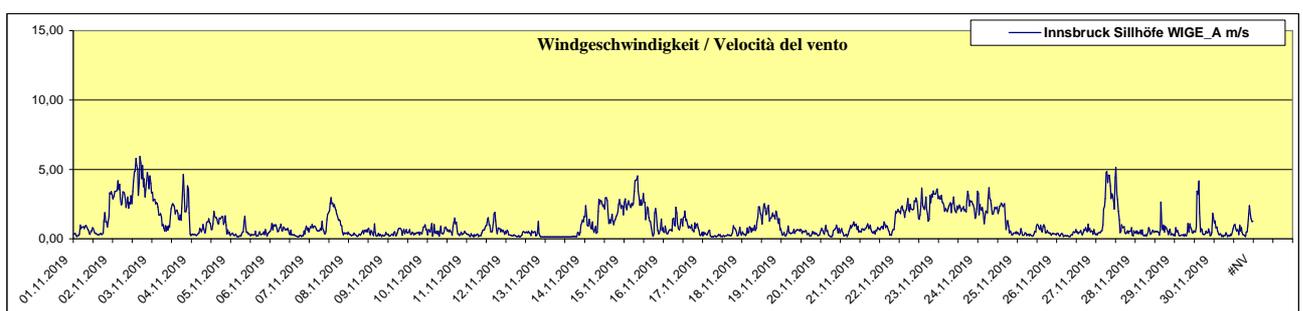
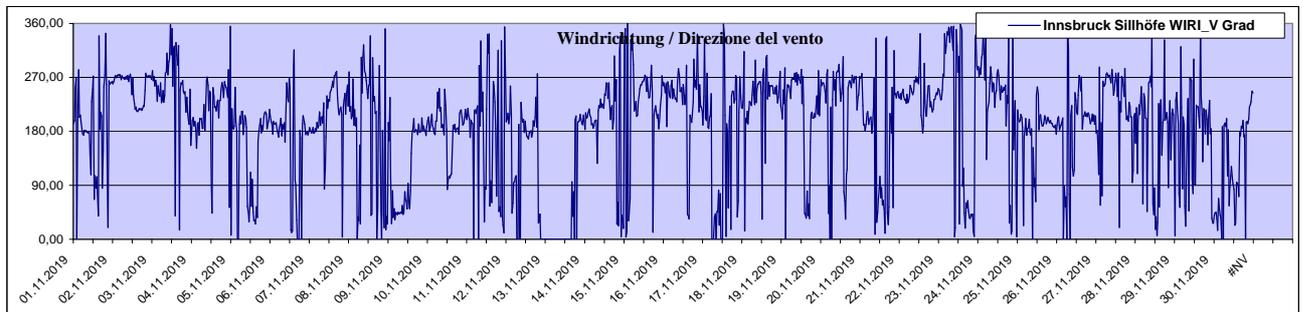
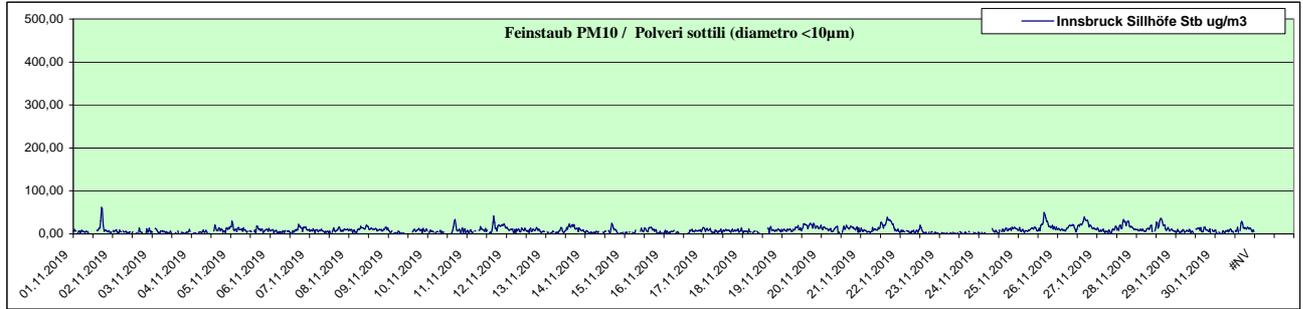
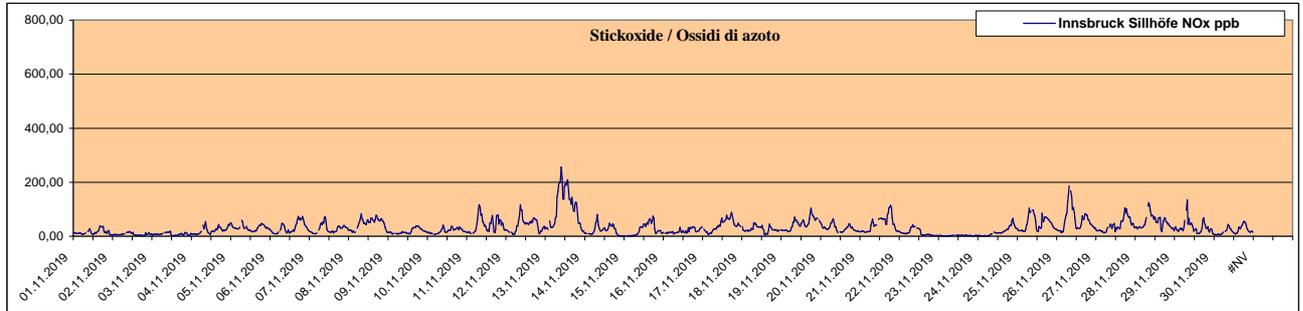
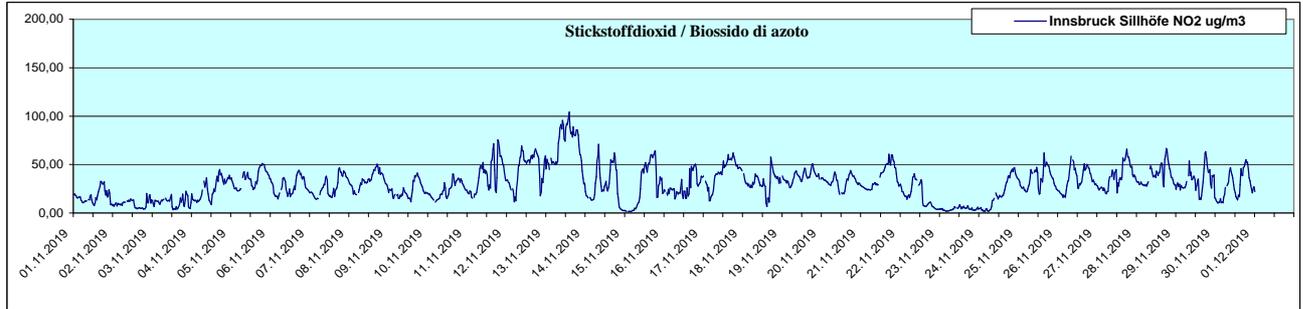
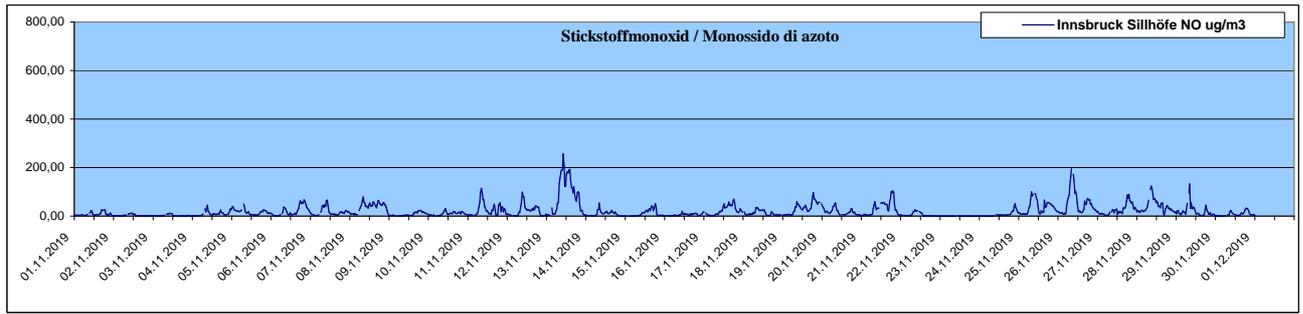


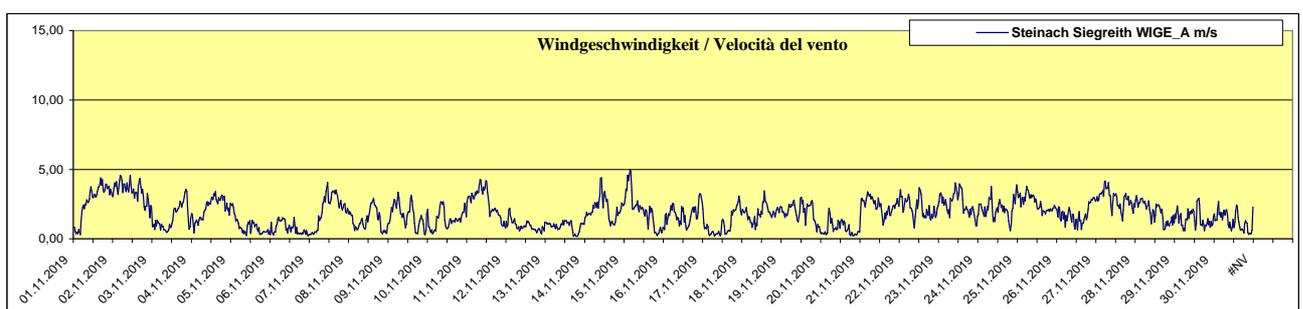
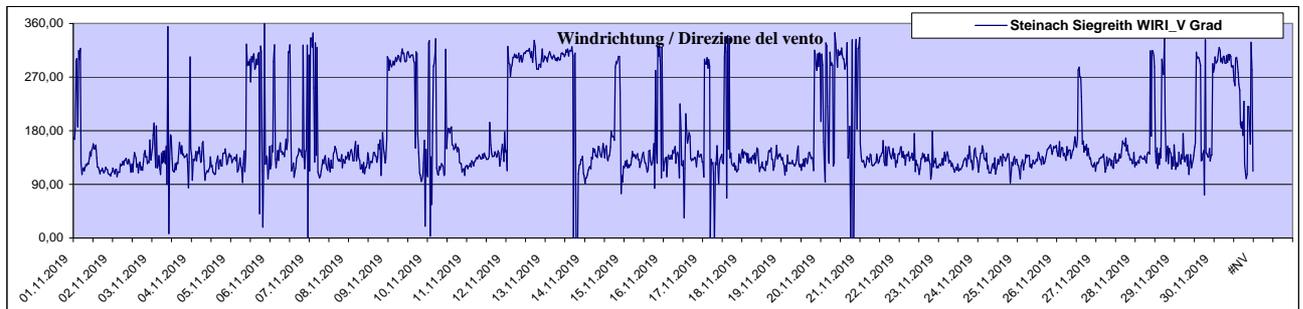
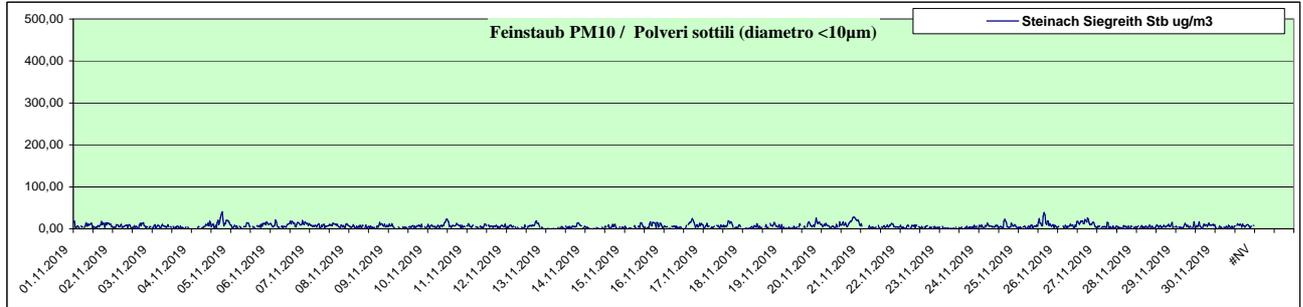
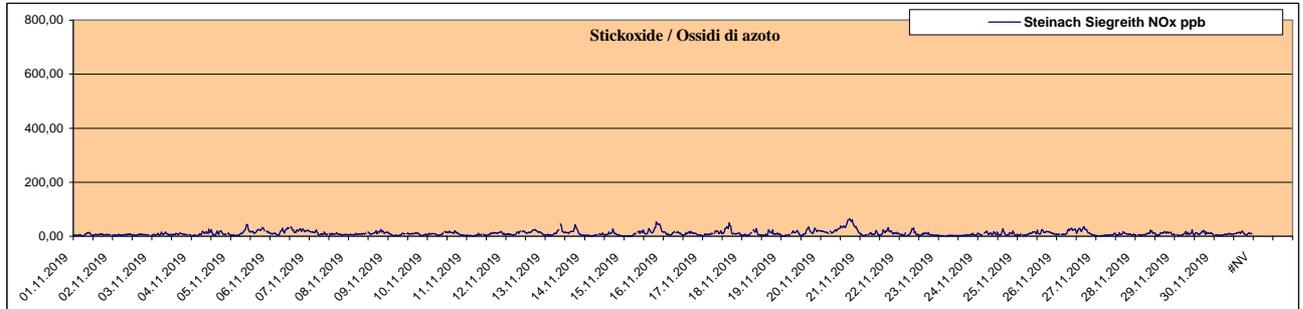
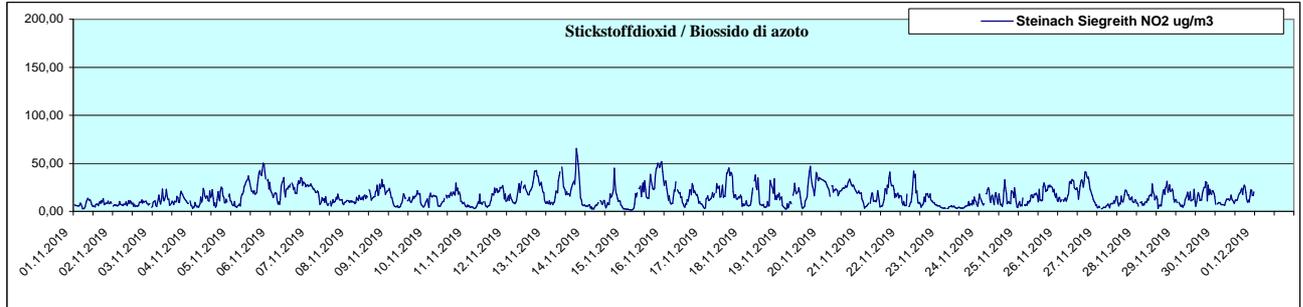
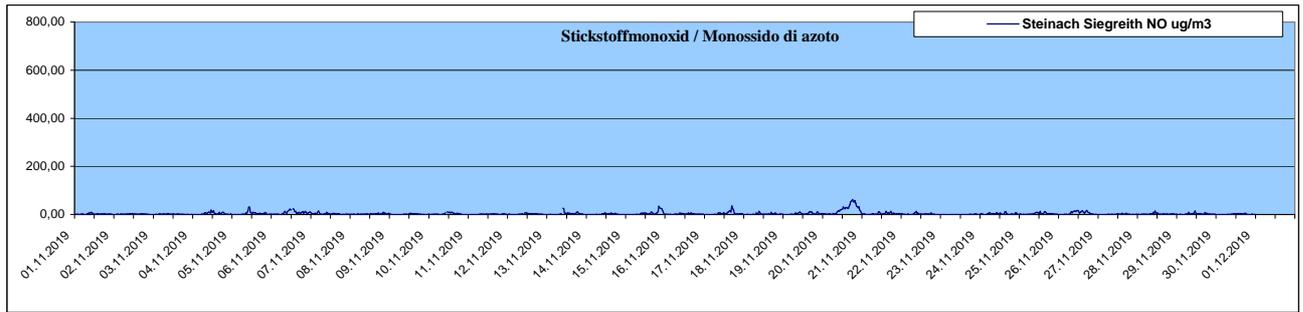
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	204,26	19,49	69,93	100,04	1		0	
Innsbruck Sillhöfe	257,21	20,38	84,58	103,65	2		0	
Steinach Siegreith	62,37	3,51	20,93	24,26	0		0	
Steinach Saxen	121,58	11,99	31,37	51,43	0		0	
Ampass	415,85	30,75	117,36	139,56	13		0	
Tulfes	178,36	11,69	47,87	78,89	0		0	

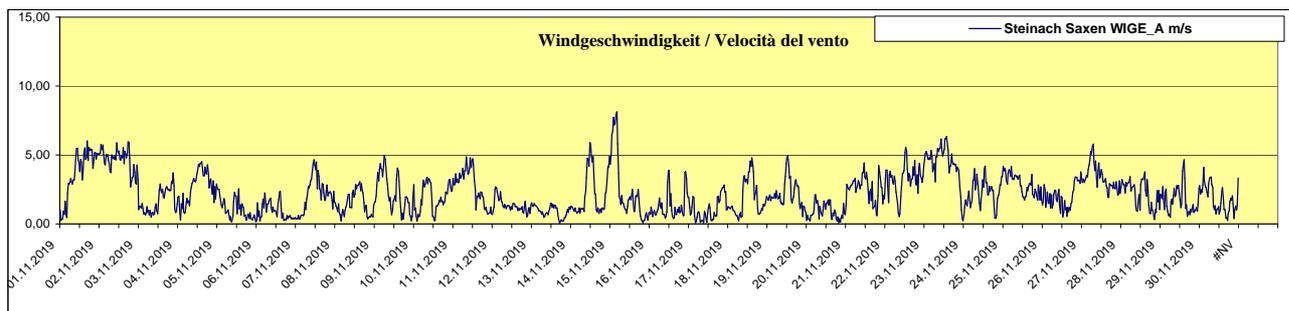
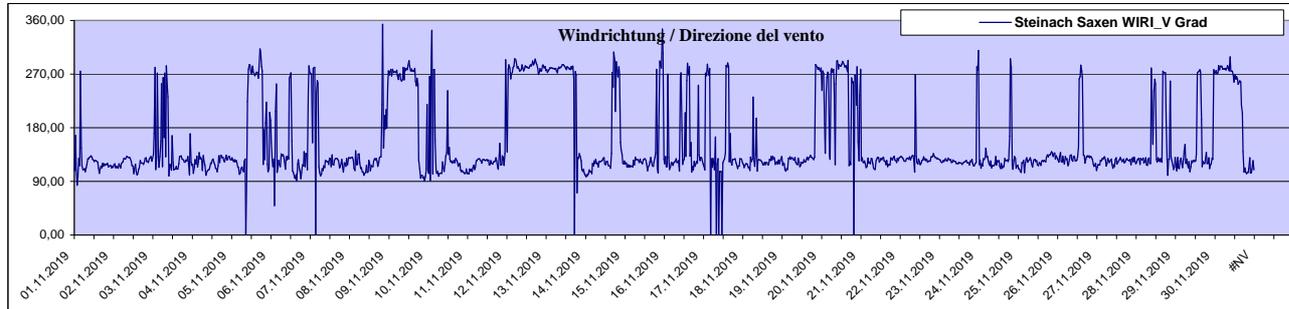
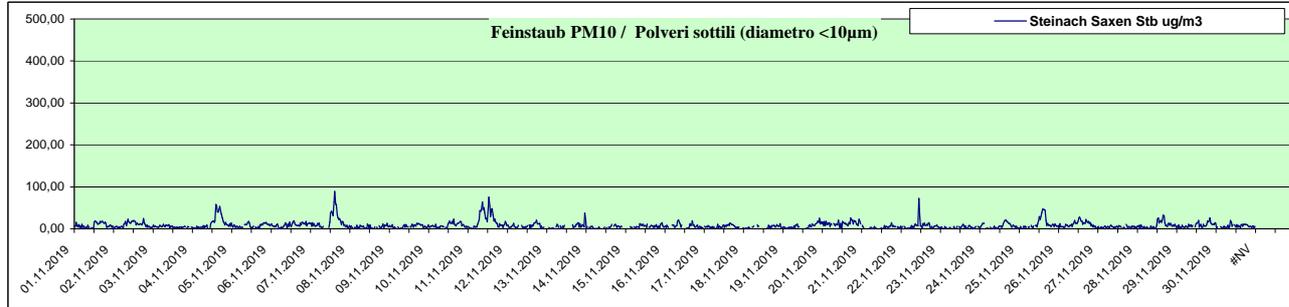
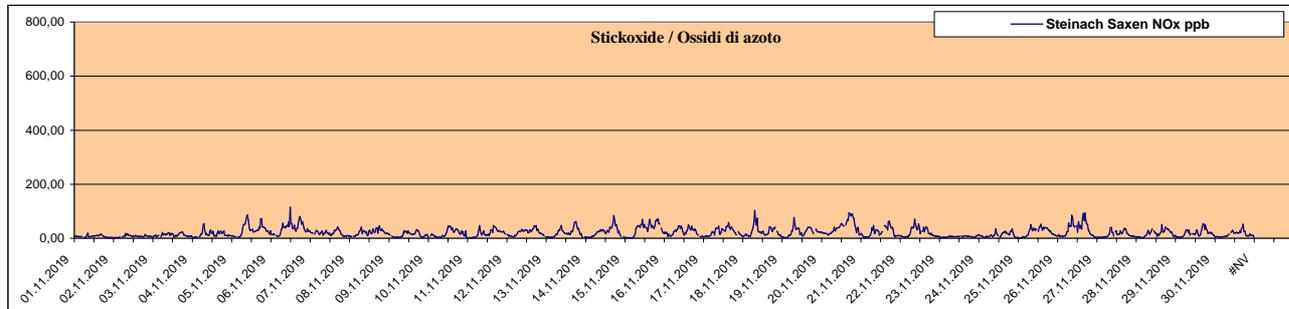
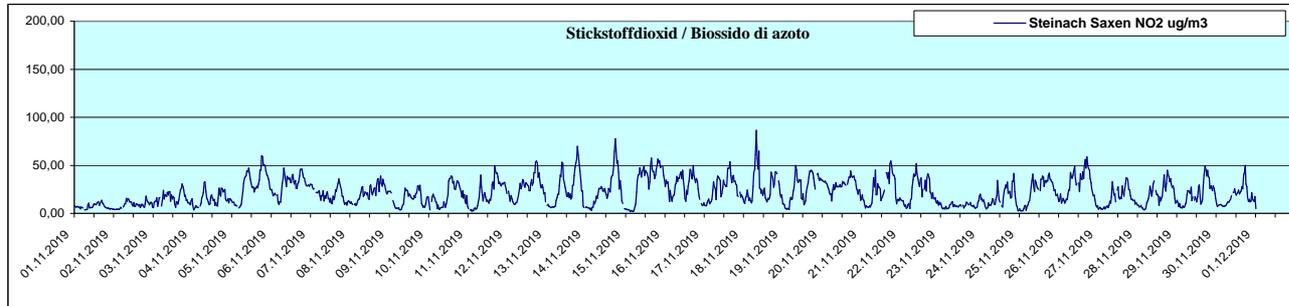
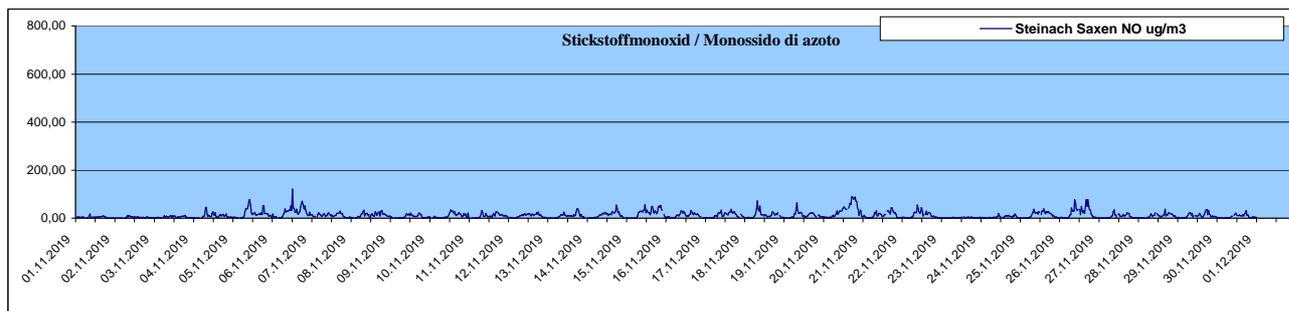
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	95,90	29,92	67,29	64,07	0		0	
Innsbruck Sillhöfe	104,20	30,04	68,49	70,75	1		0	
Steinach Siegreith	65,31	15,50	24,43	41,17	0		0	
Steinach Saxen	86,43	21,47	32,70	51,77	0		0	
Ampass	128,34	29,23	64,75	66,90	5		0	
Tulfes	85,06	20,74	54,26	59,01	0		0	

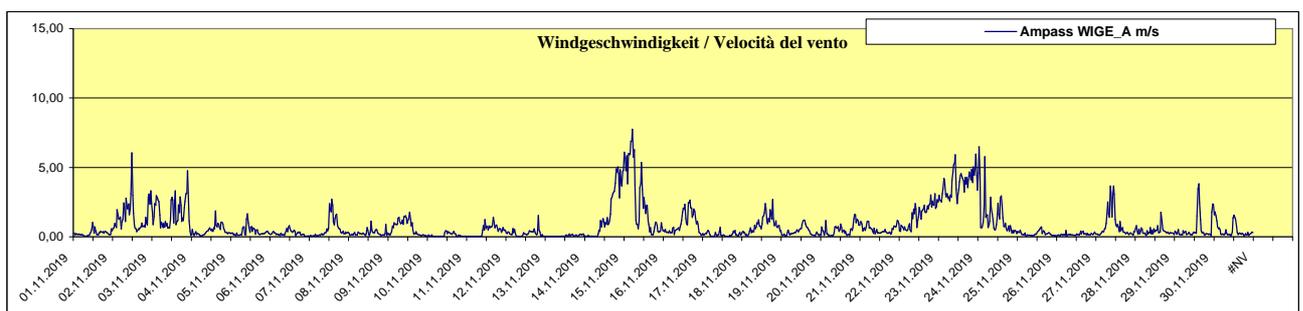
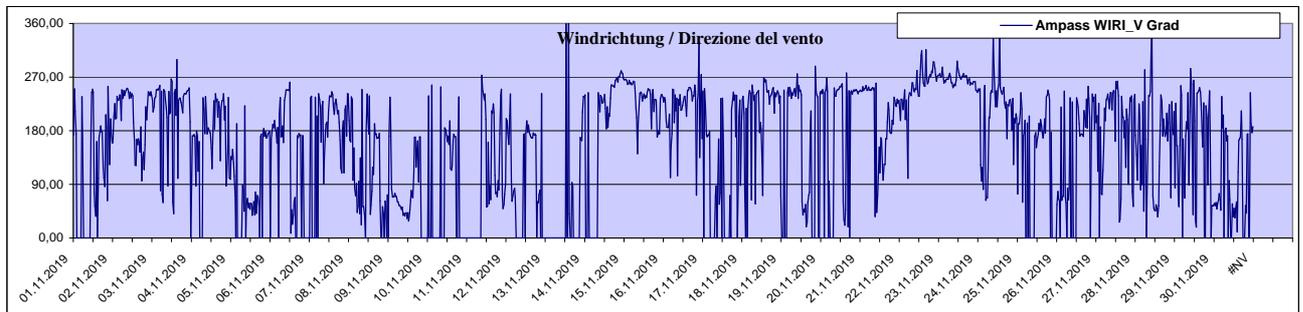
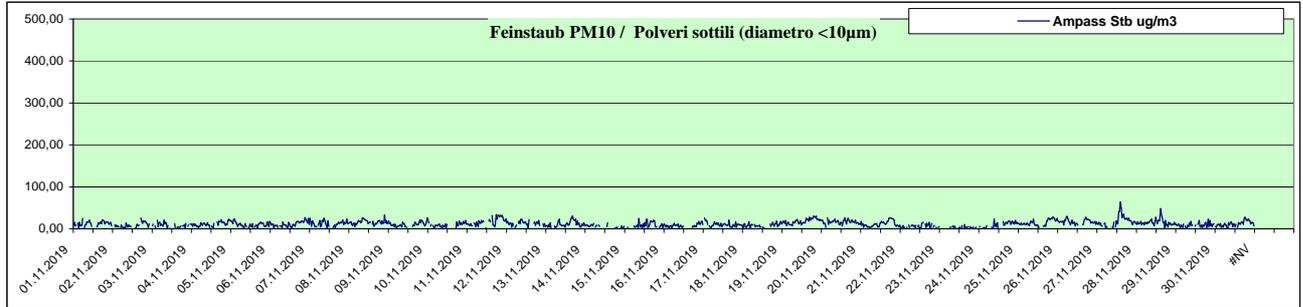
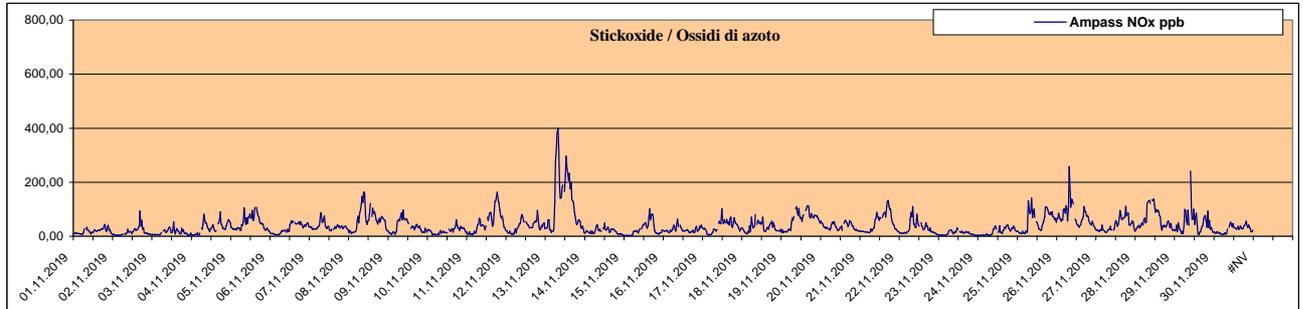
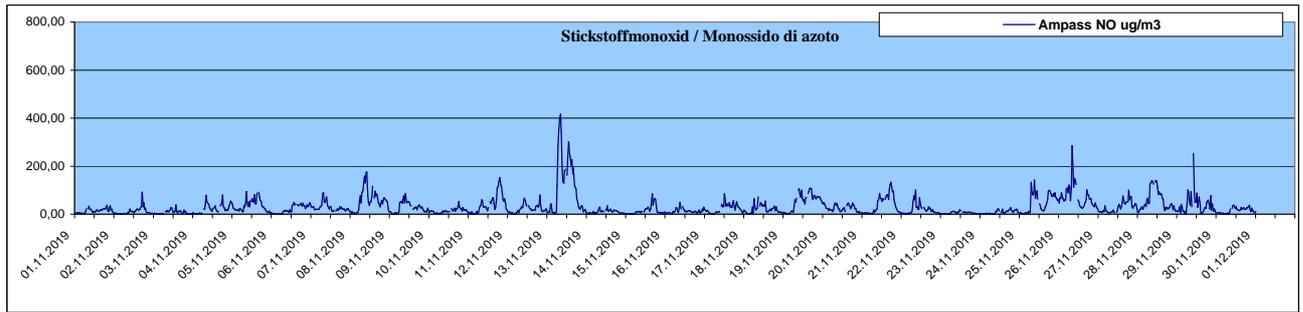
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3	Monatsmittel wert ug/m3	Max TMW ug/m3	Monatsperzentil wert 98% ug/m3	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a
	Media massima mensile ogni 1/2 ora	Media mensile	Media massima giornaliera	Percentile mensile				
Innsbruck Frauenanger	55,90	10,56	17,48	28,60	0		0	
Innsbruck Sillhöfe	61,30	9,21	17,12	29,70	0		0	
Steinach Siegreith	40,10	6,74	11,55	20,20	0		0	
Steinach Saxen	89,10	8,44	21,30	40,60	0		0	
Ampass	64,20	11,73	18,11	27,60	0		0	
Tulfes	38,20	8,80	17,18	23,50	0		0	

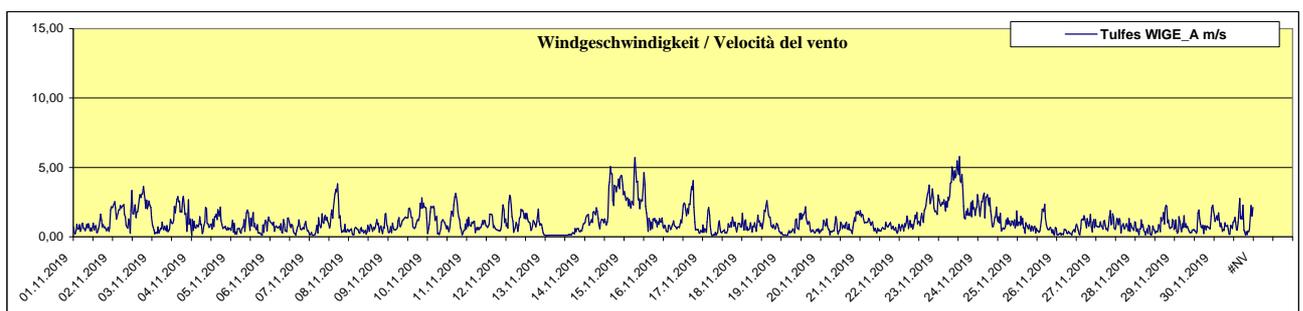
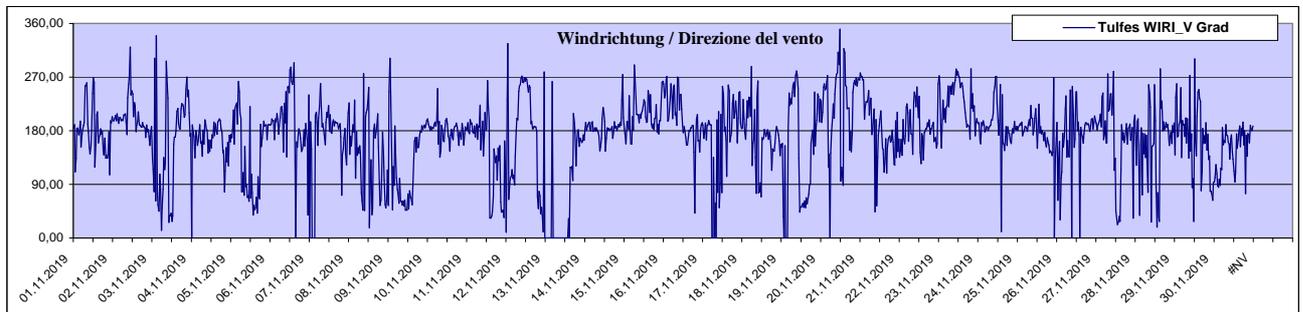
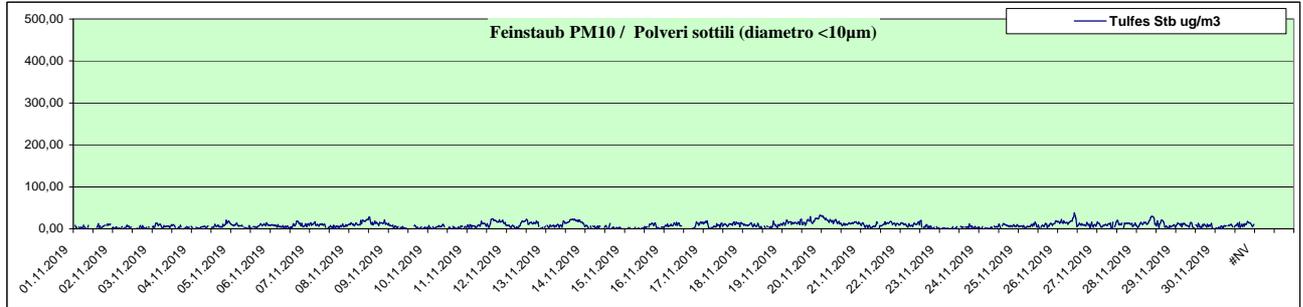
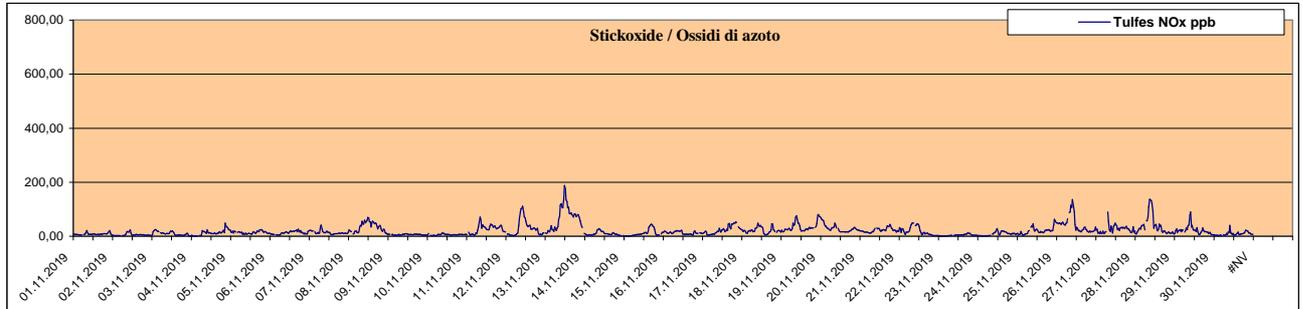
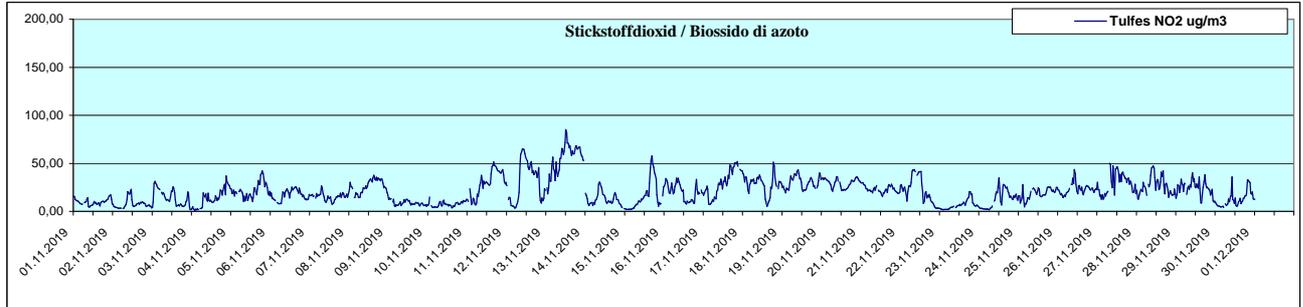
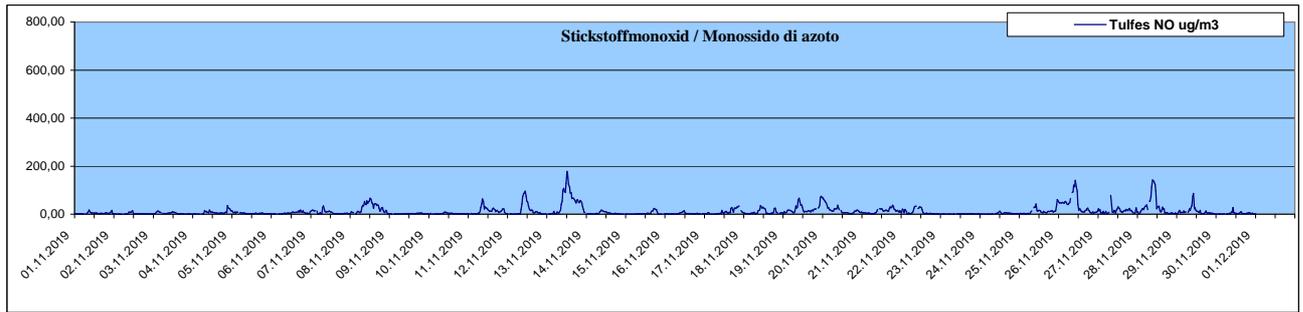




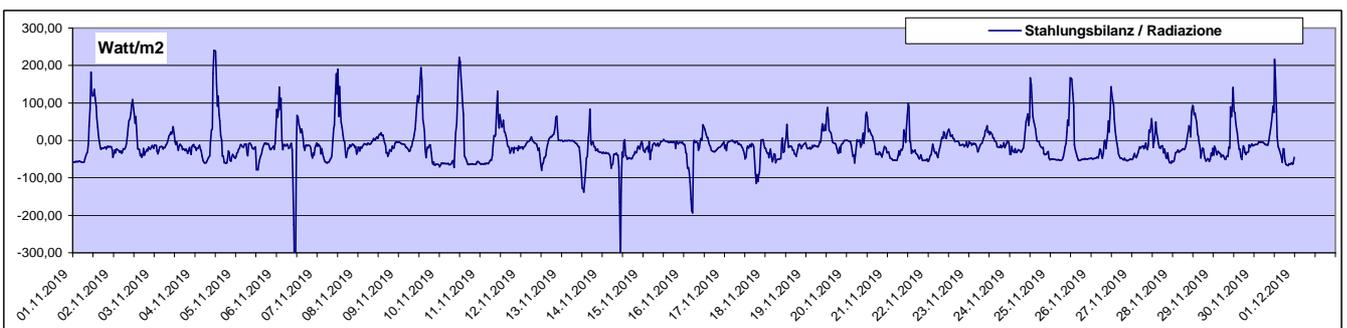
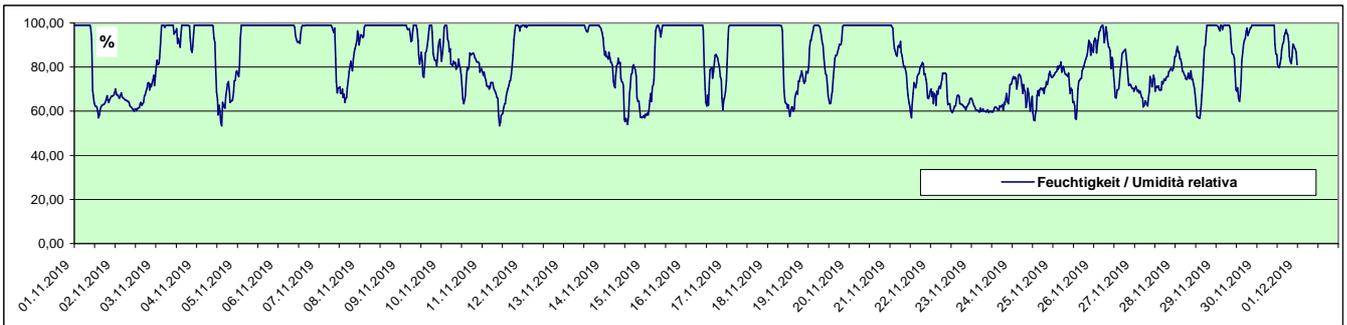
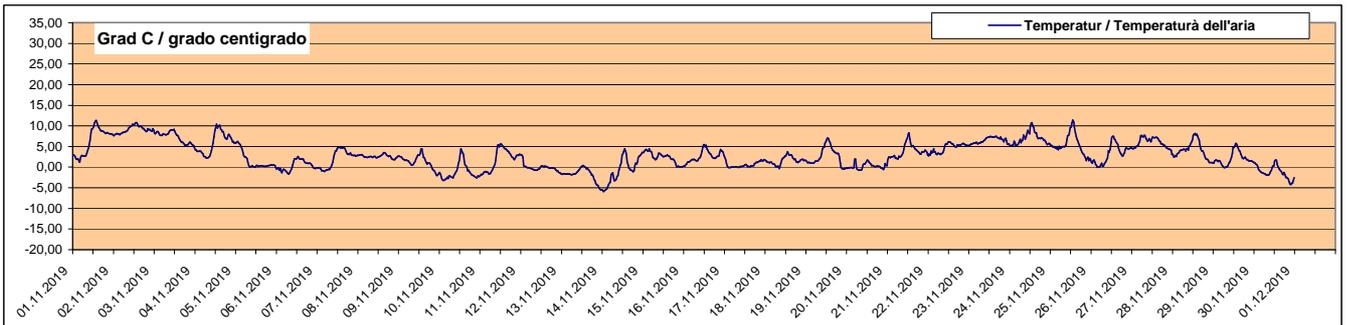
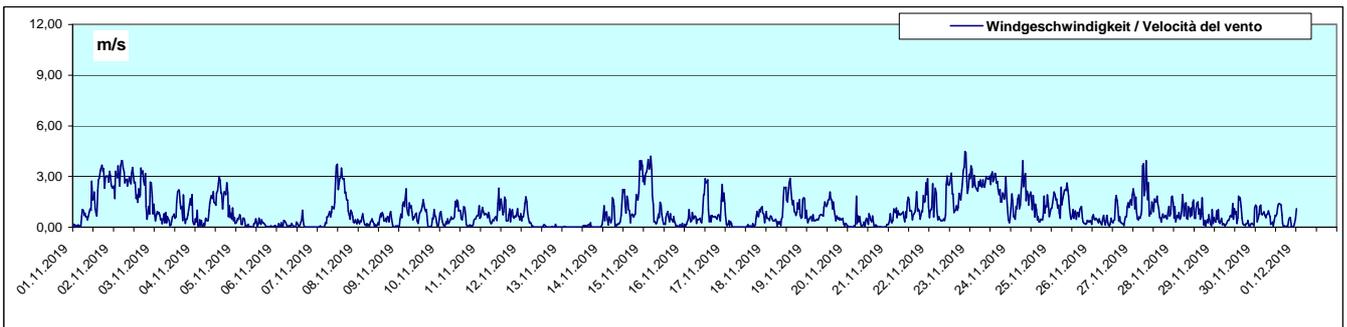
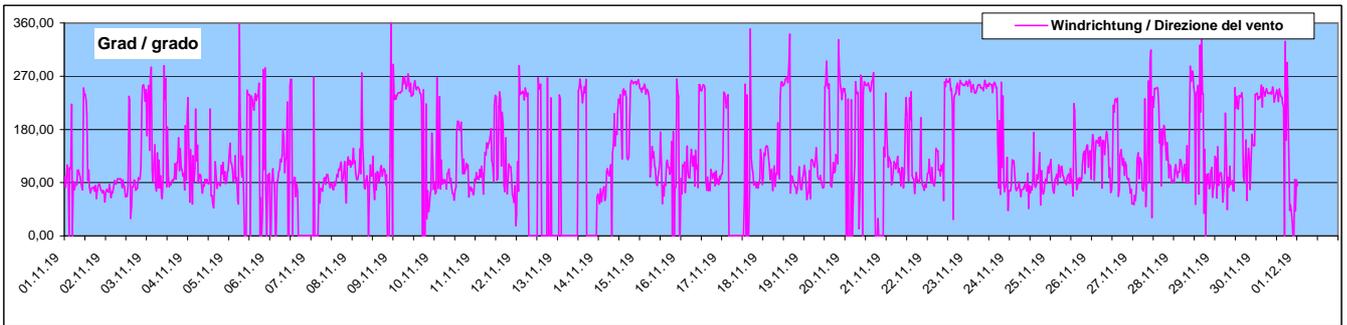








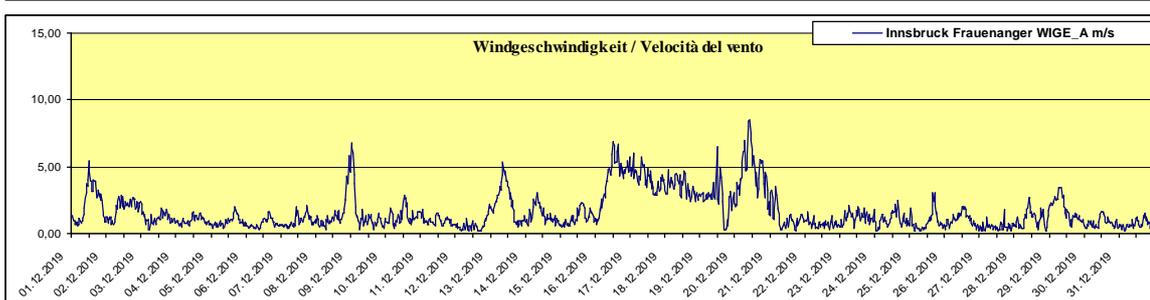
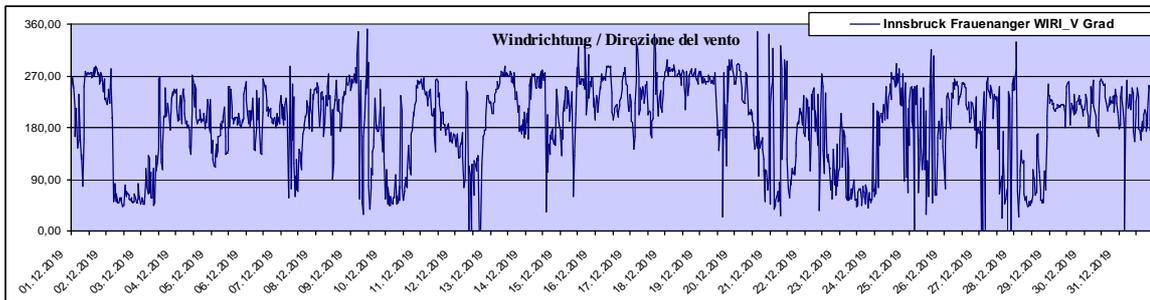
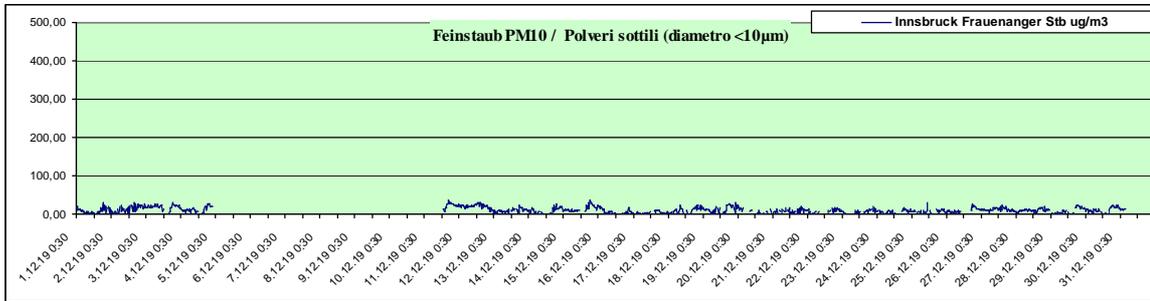
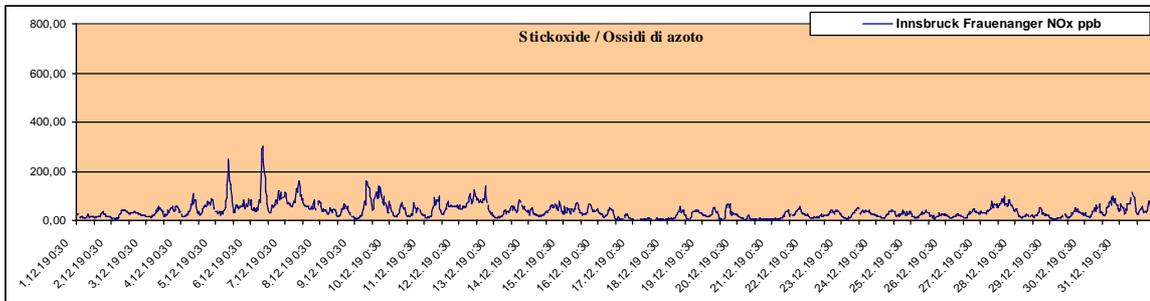
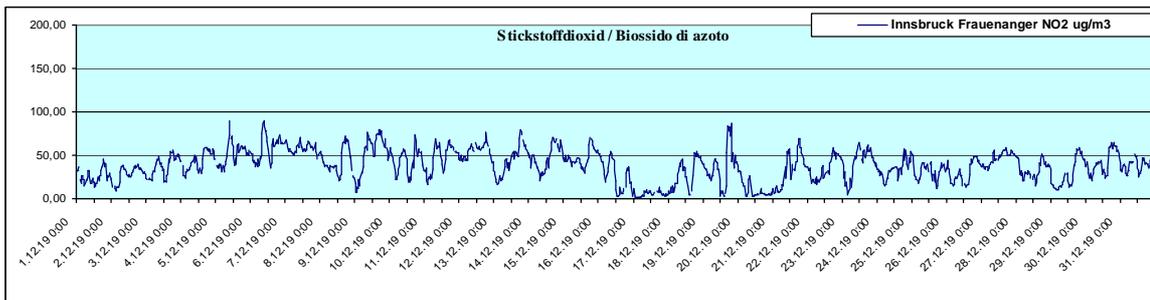
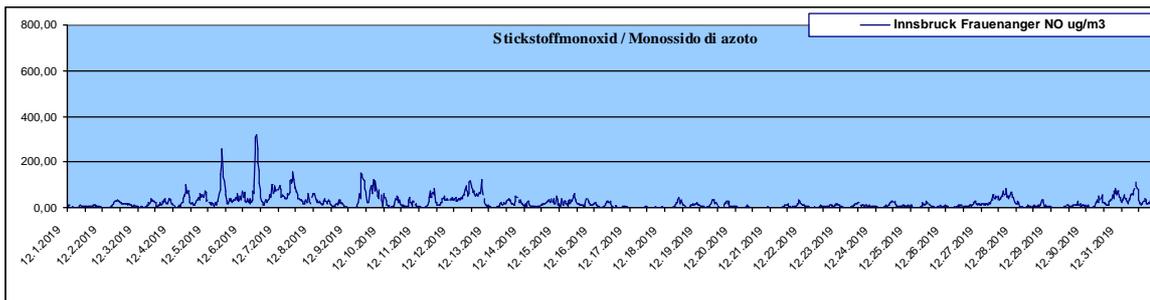
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal November 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal novembre 2019

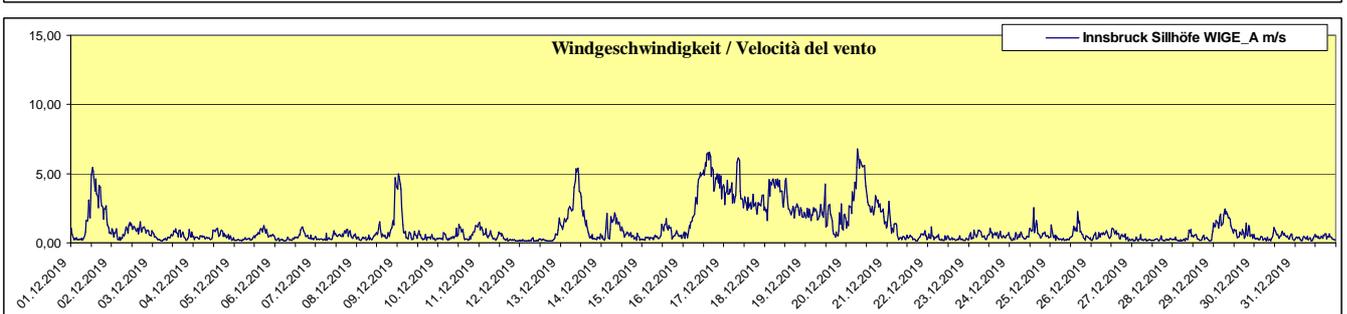
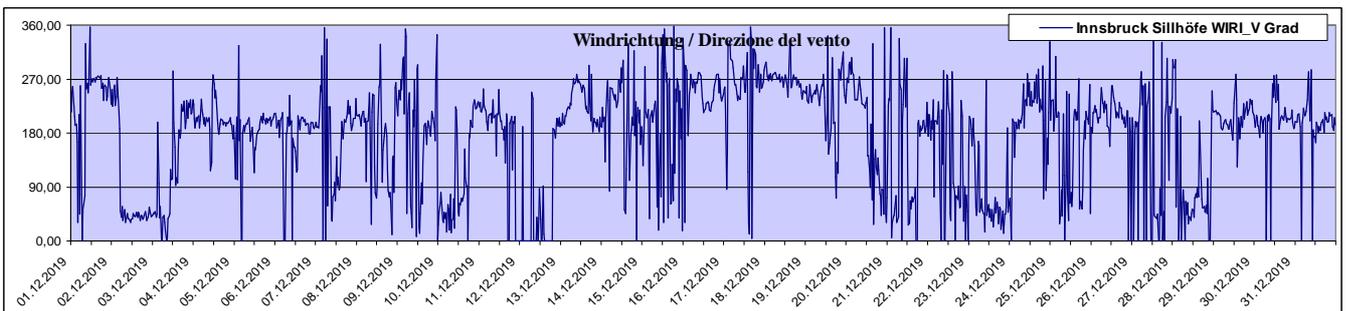
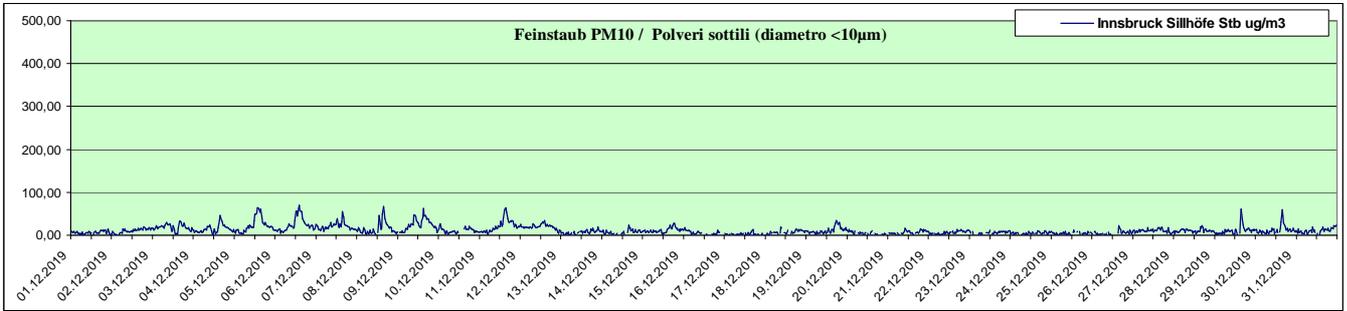
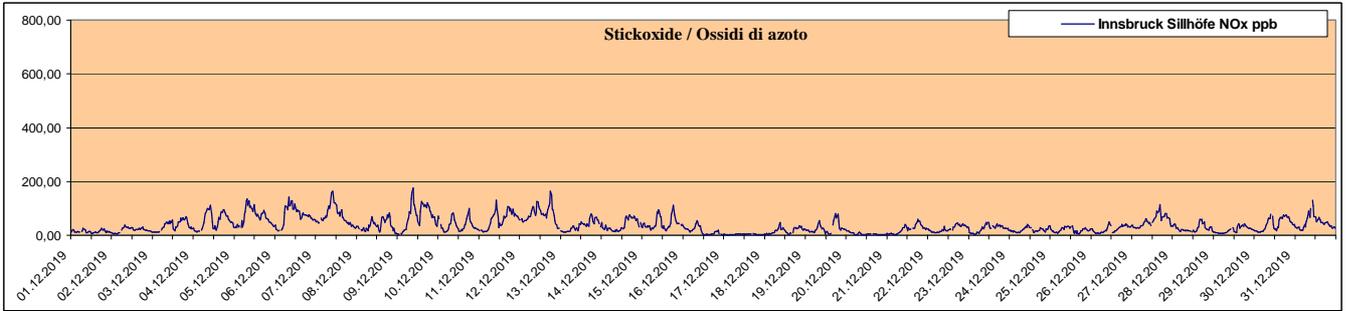
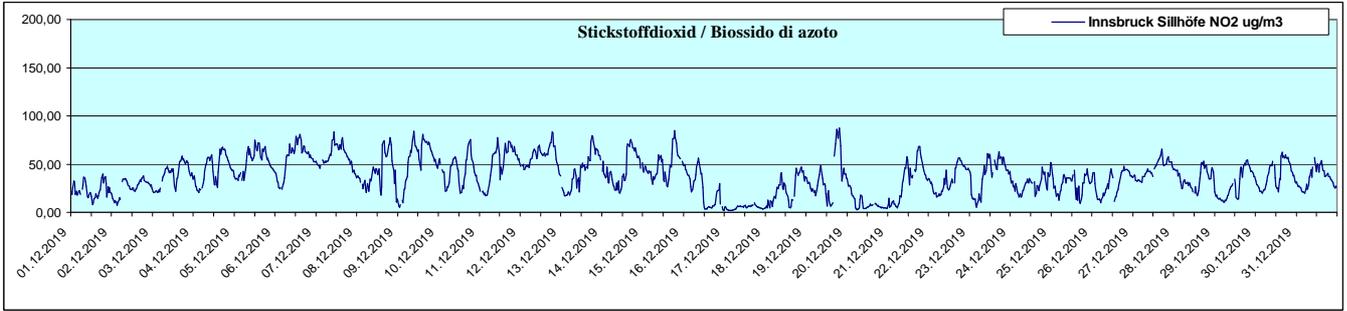
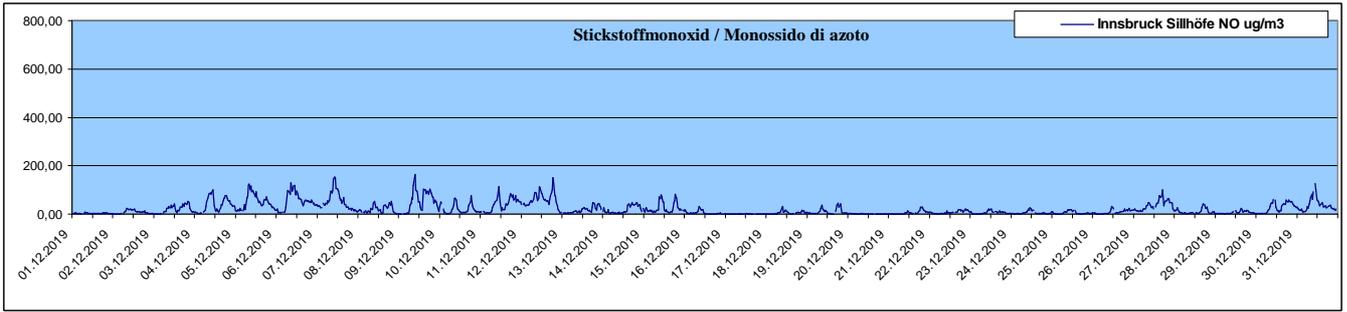


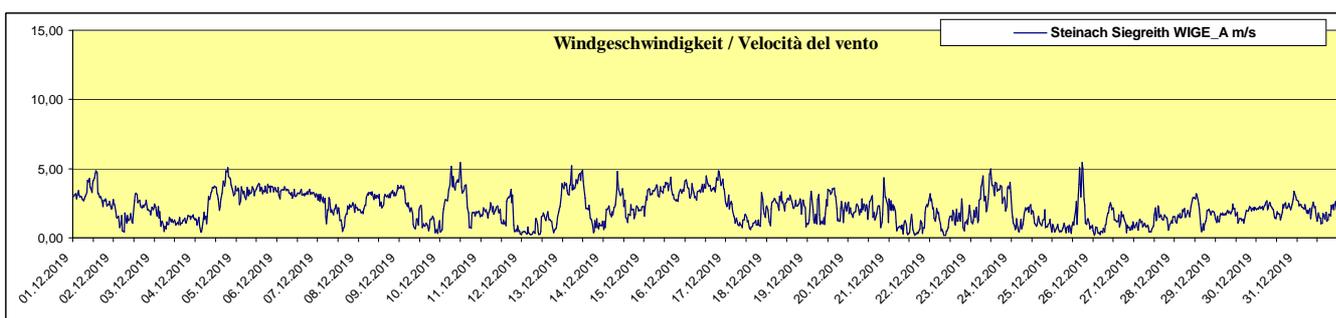
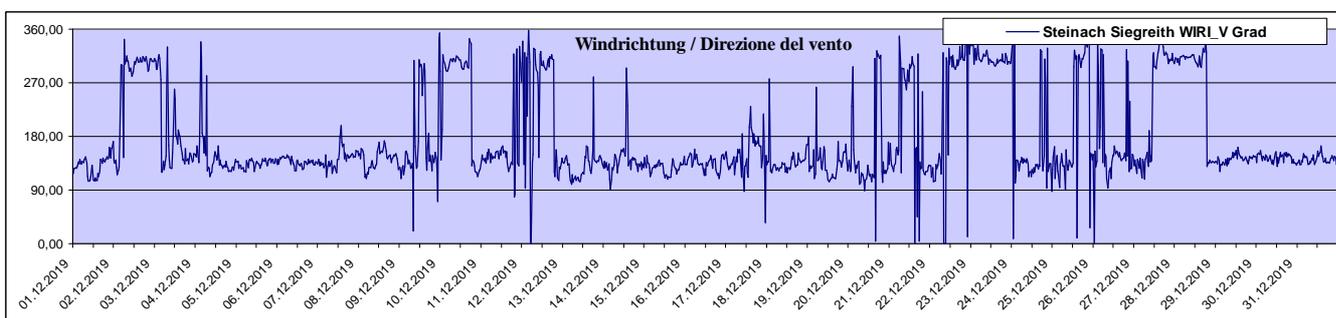
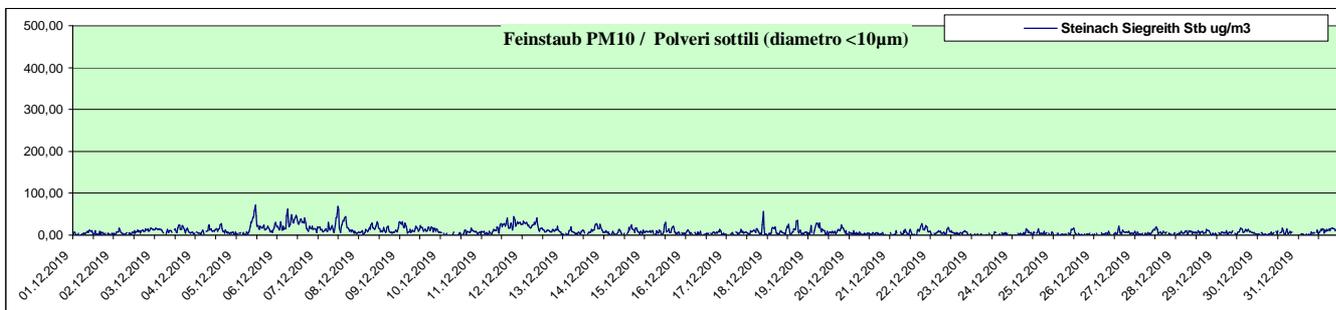
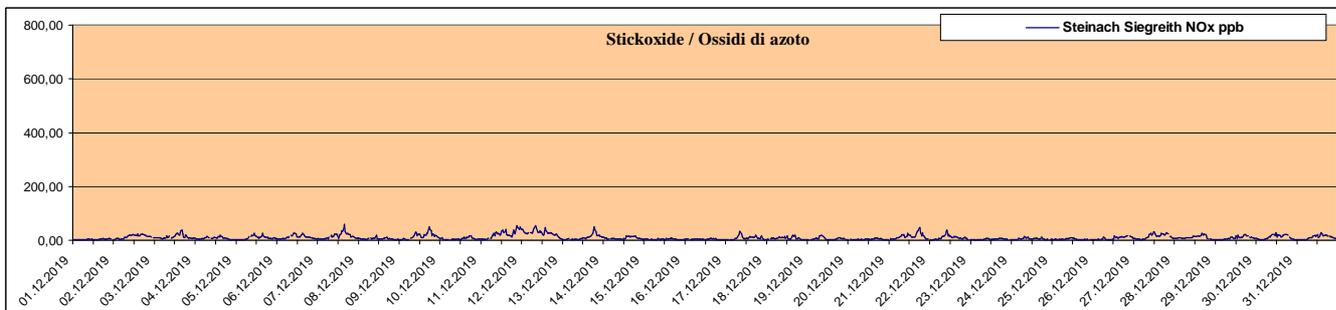
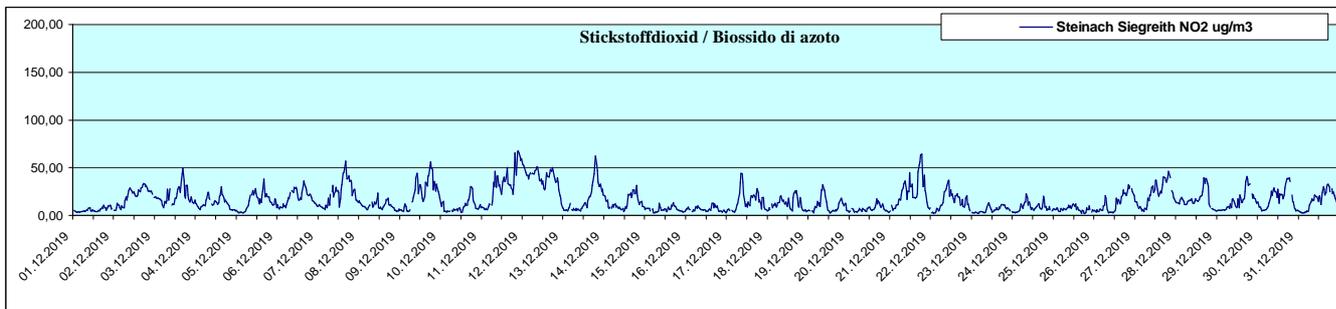
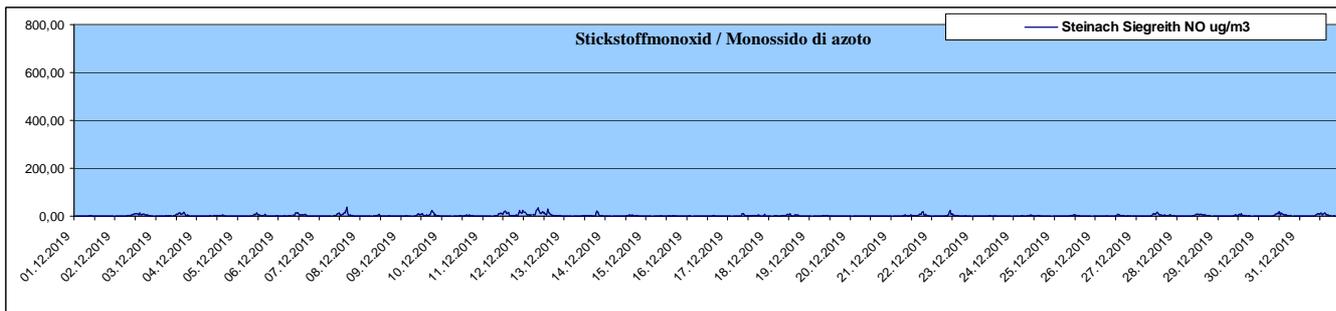
Stickstoffmonoxid				Monossido di azoto				
	Max HMW / Monat ug/m3 Media massima mensile ogni 1/2 ora	Monatsmittel wert ug/m3 Media mensile	Max TMW ug/m3 Media massima giomaliera	Monatsperzentil wert 98% ug/m3 Percentile mensile	Anzahl der Werte zwischen 200 und 500 ug/m3	Quantità di valori tra e 500 ug/m3	Anzahl der Werte über 500 ug/m3	Quantità di valori superiori a 500 ug/m3
Innsbruck Frauenanger	320,09	21,98	74,96	103,93	6		0	
Innsbruck Sillhöfe	163,53	21,37	59,96	99,37	0		0	
Steinach Siegreith	37,61	2,35	9,03	15,55	0		0	
Steinach Saxen	92,75	8,34	19,04	38,59	0		0	
Ampass	314,94	30,49	95,18	140,97	6		0	
Tulfes	127,93	9,81	39,18	66,84	0		0	

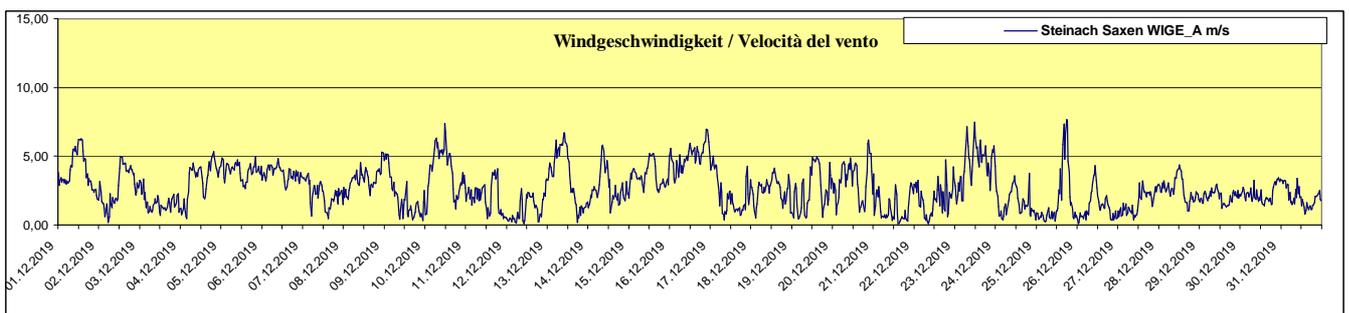
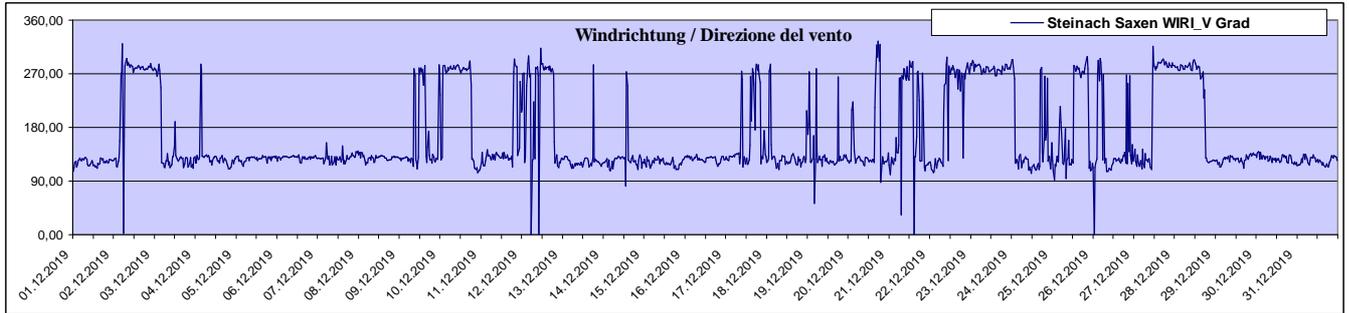
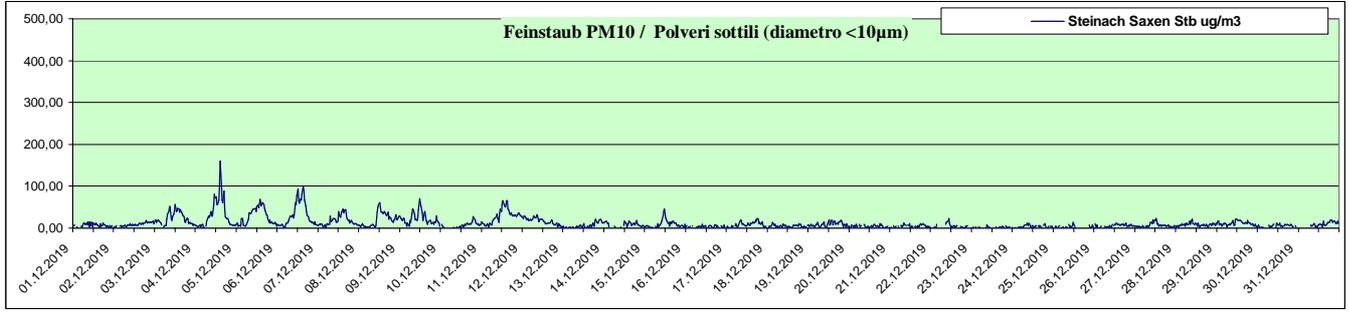
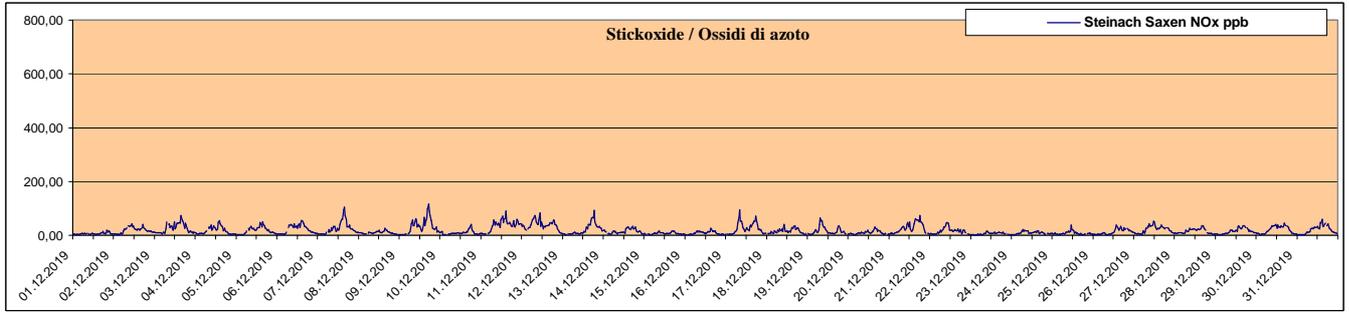
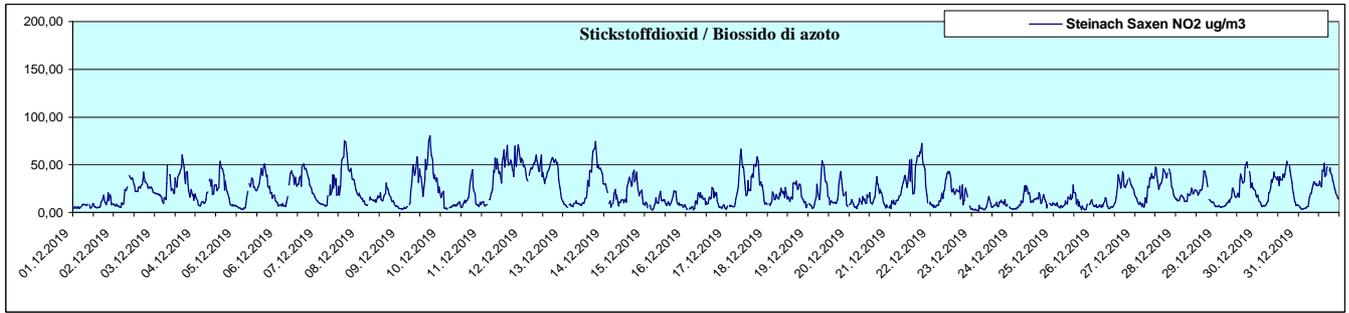
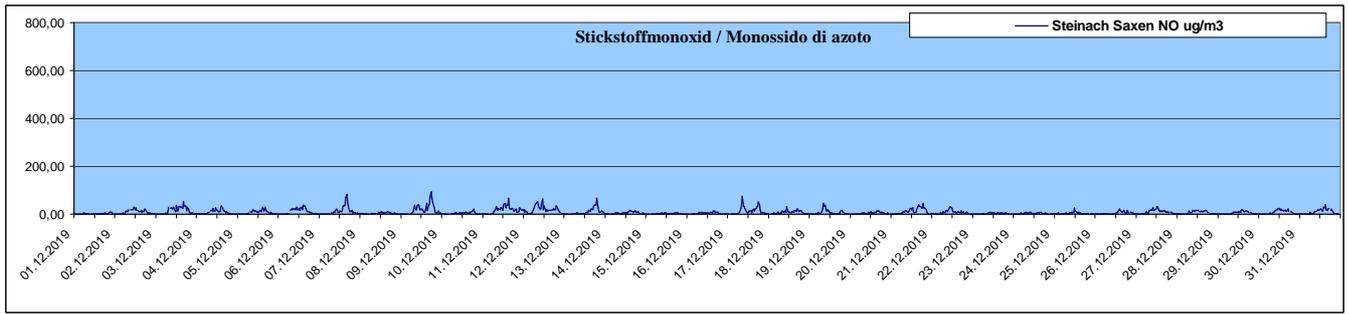
Stickstoffdioxid				Biossido di azoto				
	Max HMW / Monat ug/m3 Media massima mensile ogni 1/2 ora	Monatsmittel wert ug/m3 Media mensile	Max TMW ug/m3 Media massima giomaliera	Monatsperzentil wert 98% ug/m3 Percentile mensile	Anzahl der Werte zwischen 100 und 200 ug/m3	Quantità di valori tra e 200 ug/m3	Anzahl der Werte über 200 ug/m3	Quantità di valori superiori a 200 ug/m3
Innsbruck Frauenanger	89,62	38,09	57,70	71,75	0		0	
Innsbruck Sillhöfe	87,17	37,36	58,18	75,18	0		0	
Steinach Siegreith	67,58	15,50	38,38	48,01	0		0	
Steinach Saxen	79,93	21,36	43,22	58,90	0		0	
Ampass	95,80	37,28	58,13	71,53	0		0	
Tulfes	65,77	24,94	45,21	53,80	0		0	

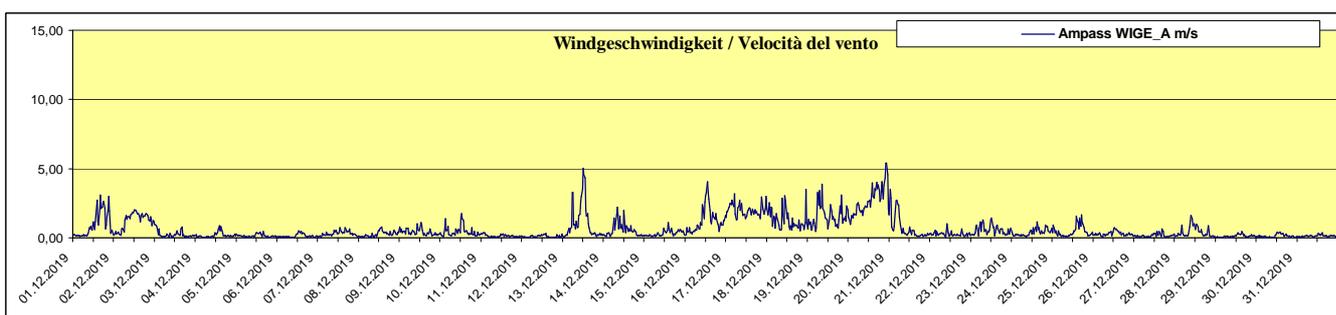
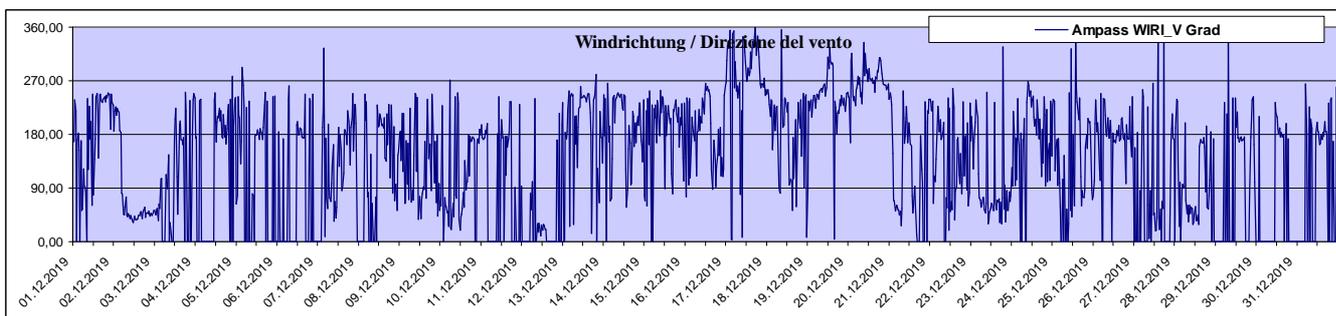
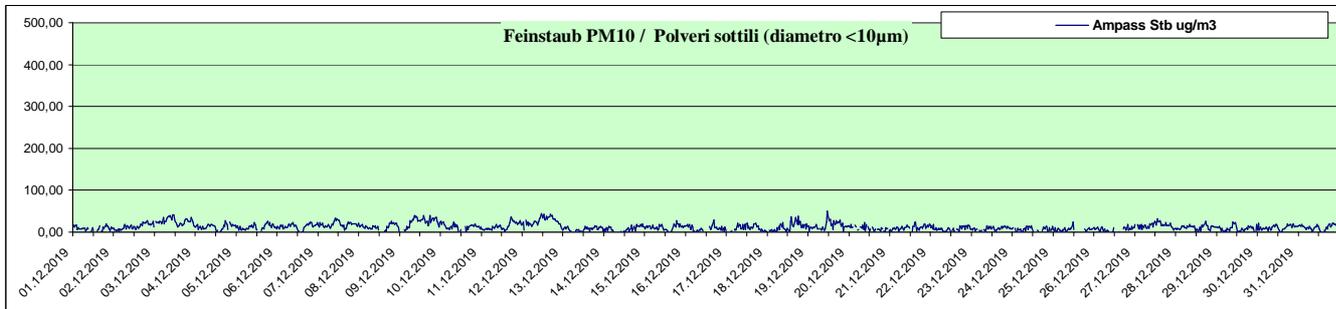
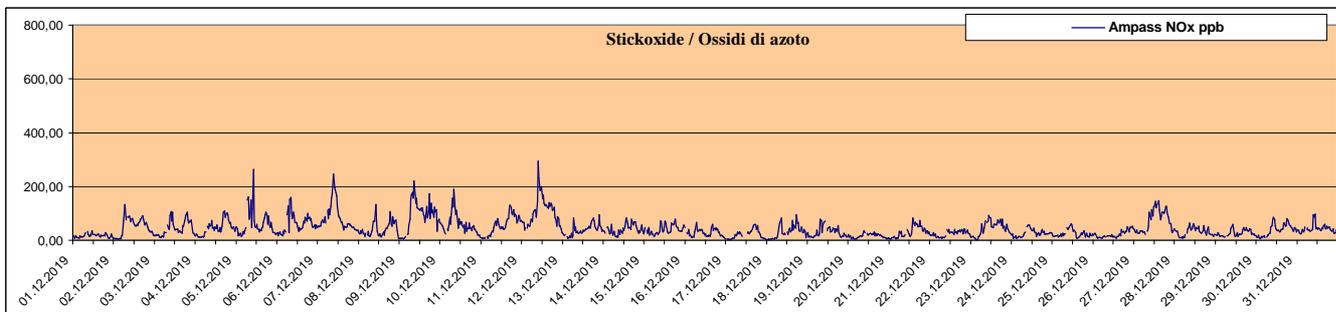
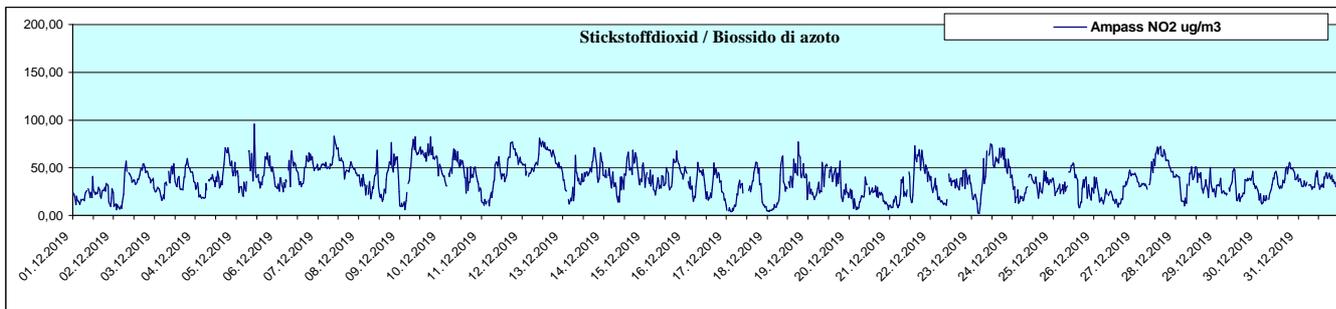
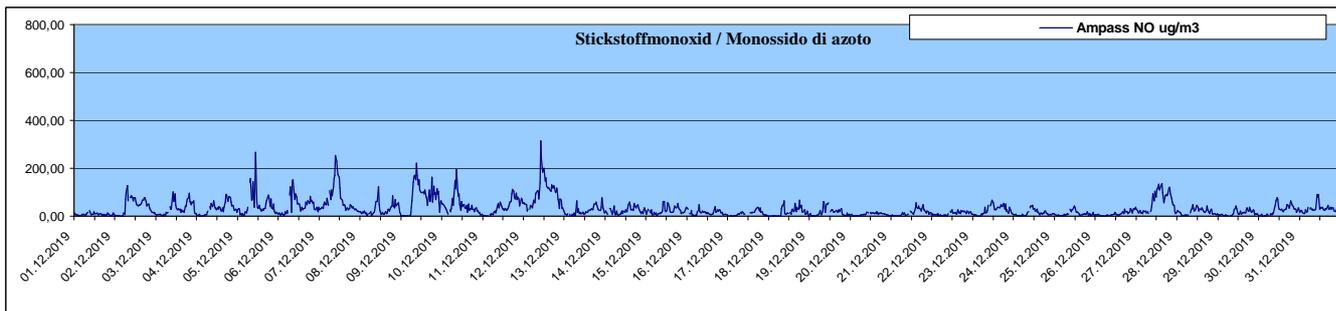
Feinstaub PM10				Polveri sottili (diametro <10µm)				
	Max HMW / Monat ug/m3 Media massima mensile ogni 1/2 ora	Monatsmittel wert ug/m3 Media mensile	Max TMW ug/m3 Media massima giomaliera	Monatsperzentil wert 98% ug/m3 Percentile mensile	Anzahl der Werte zwischen 250 und 300 ug/m3	Quantità di valori tra e 300 ug/m3	Anzahl der Werte über 300 ug/m3	Quantità di valori superiori a 300 ug/m3
Innsbruck Frauenanger	37,20	10,85	19,83	26,90	0		0	
Innsbruck Sillhöfe	69,50	12,09	24,86	46,10	0		0	
Steinach Siegreith	72,00	9,74	25,88	35,10	0		0	
Steinach Saxen	160,20	12,62	32,85	60,20	0		0	
Ampass	50,60	12,80	26,35	34,60	0		0	
Tulfes	44,00	10,41	21,54	27,70	0		0	

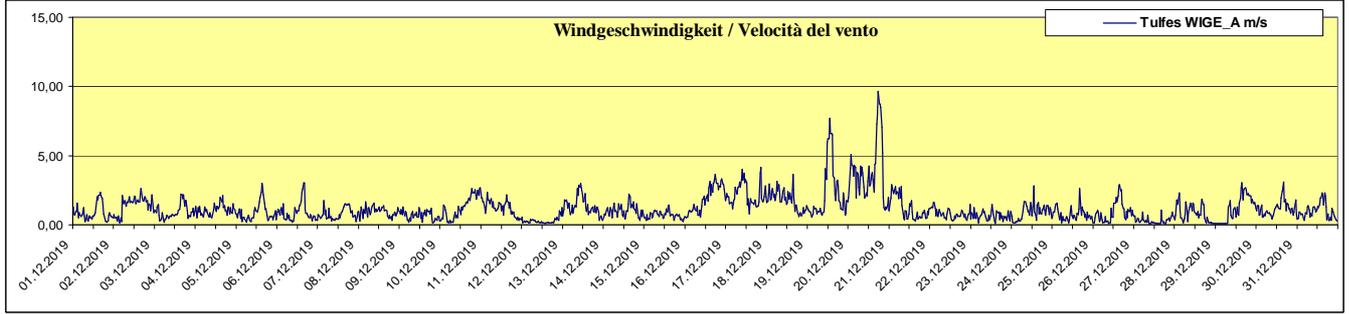
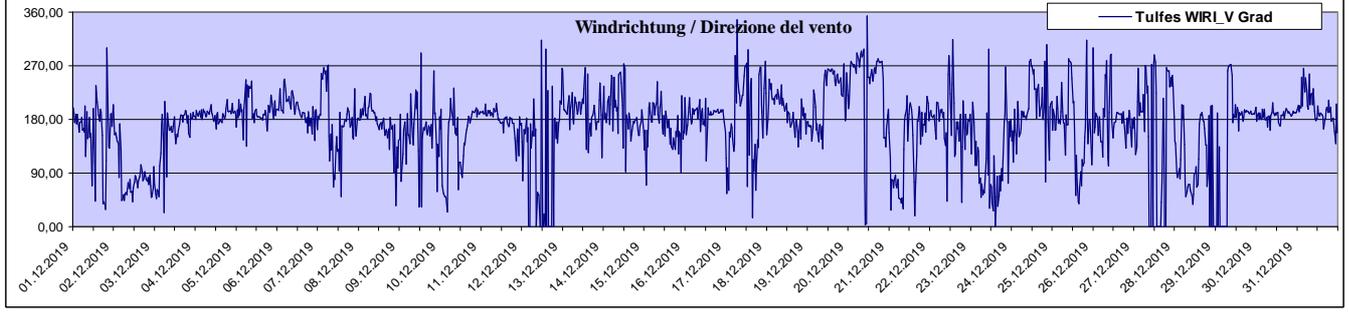
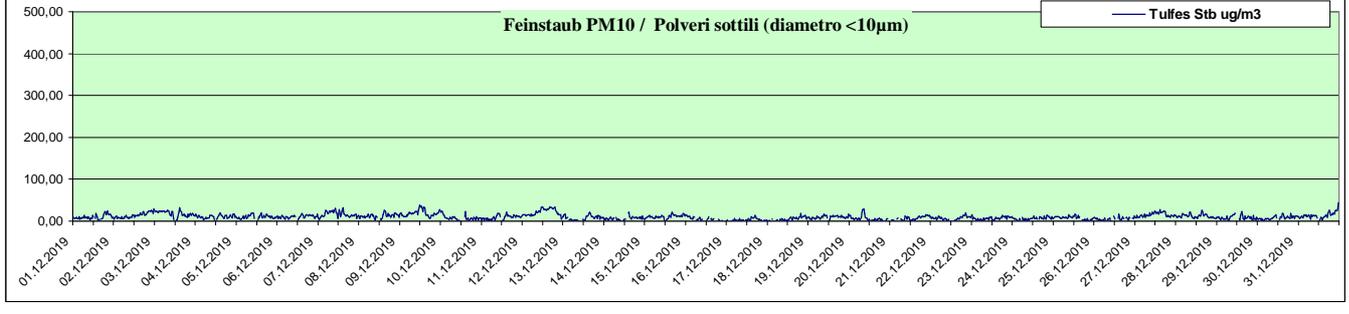
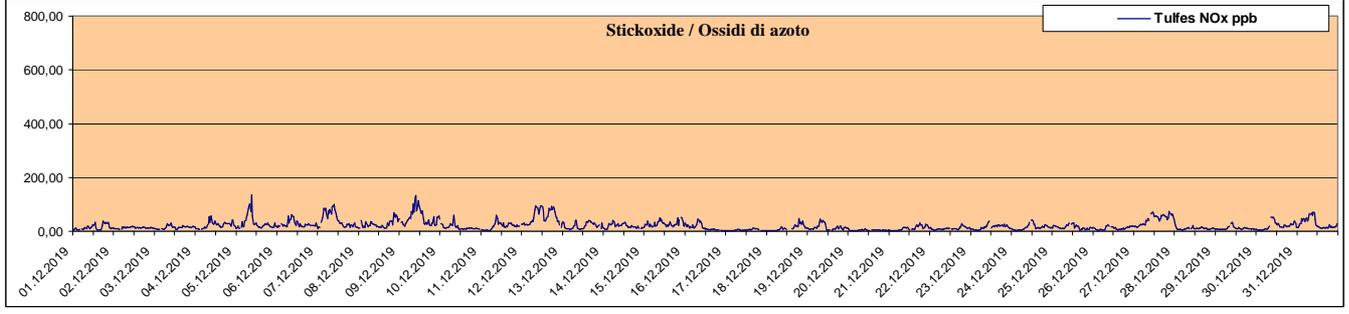
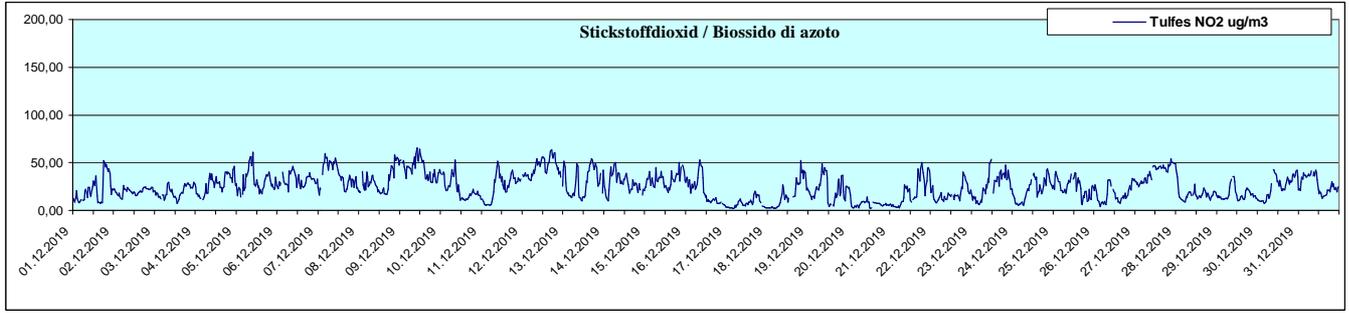
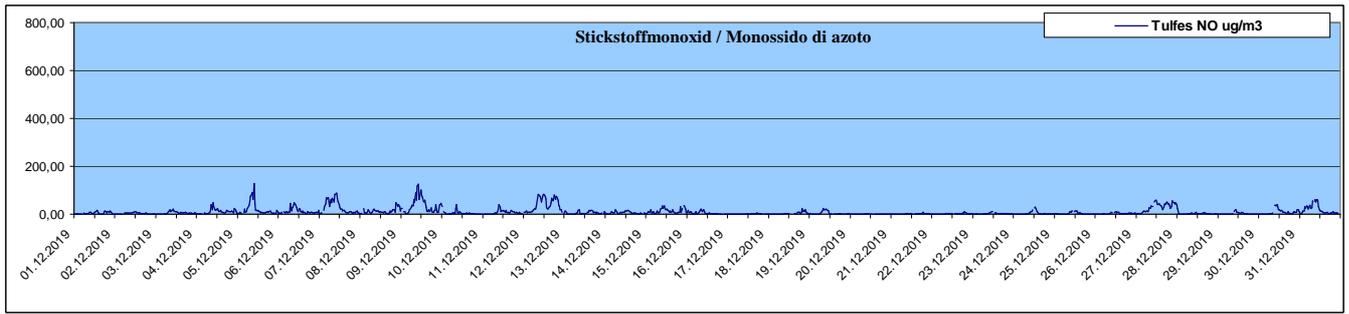




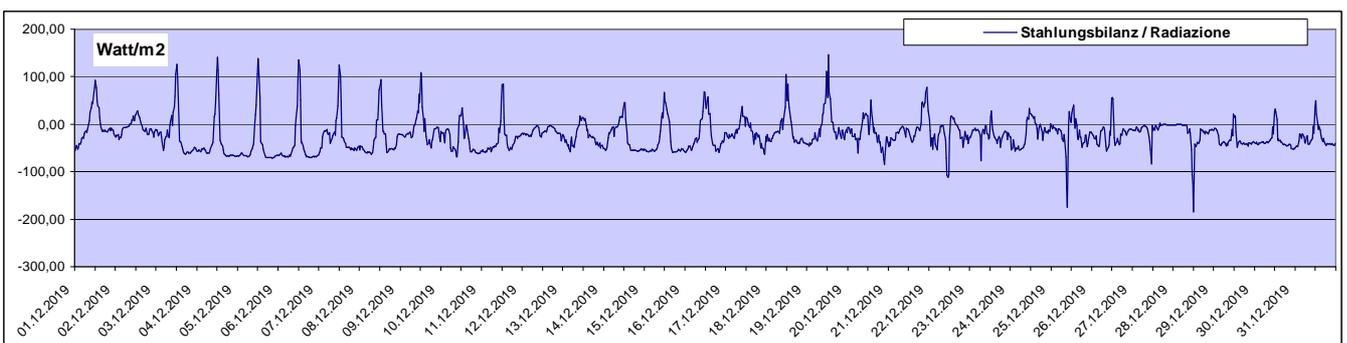
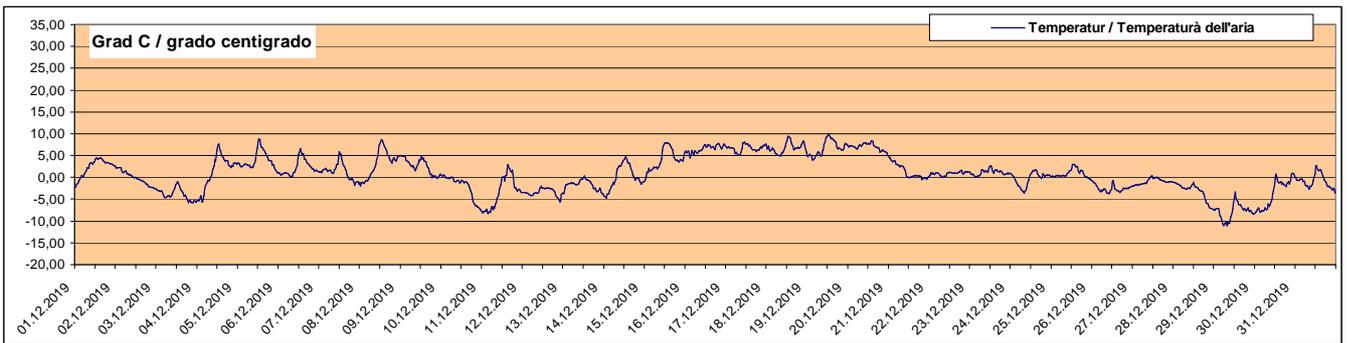
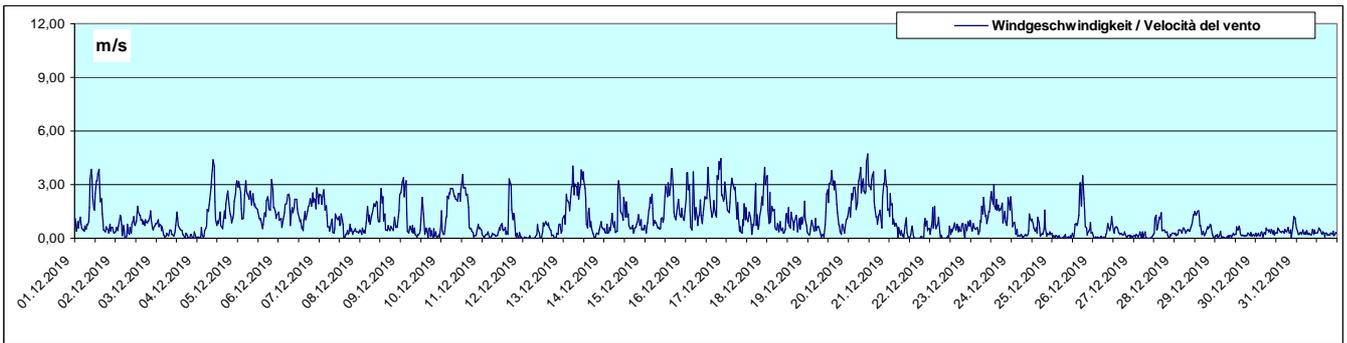
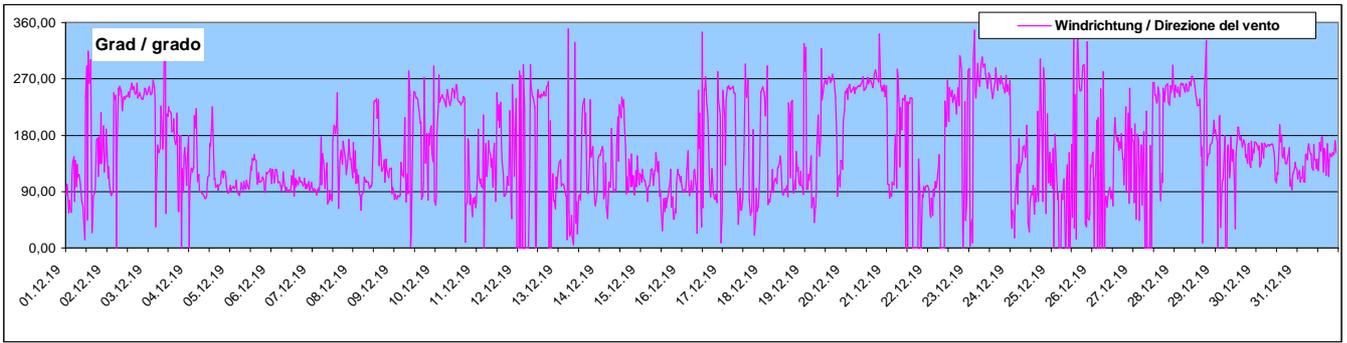




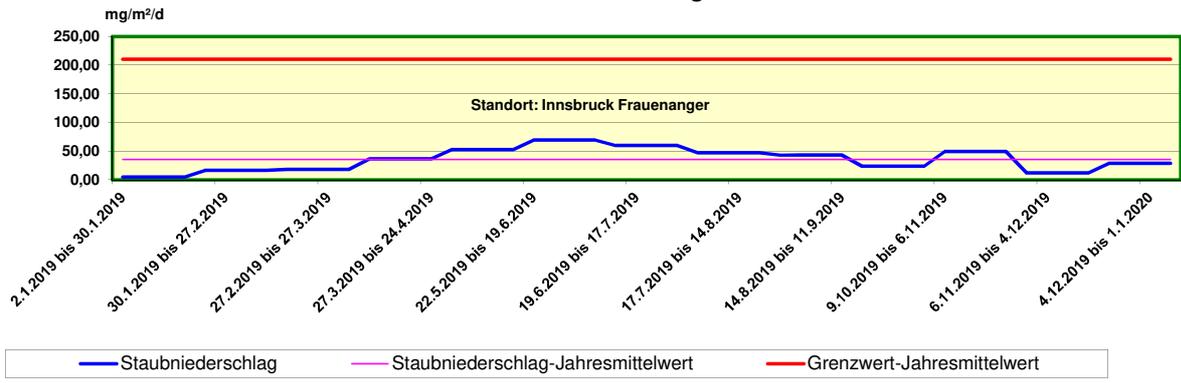




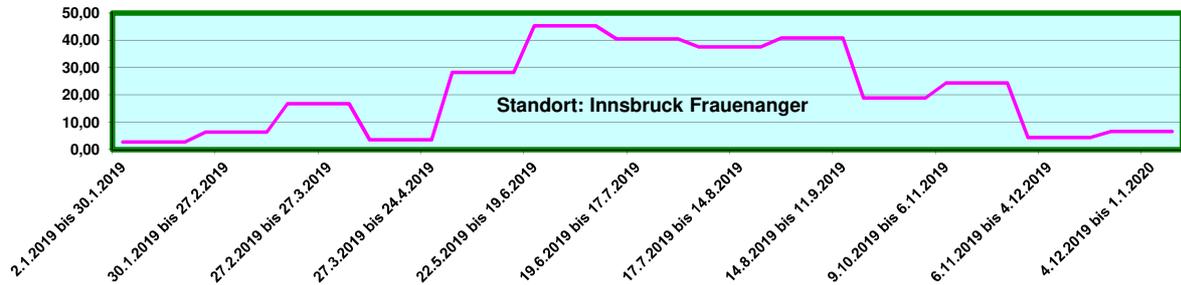
Verlauf der meteorologischen Daten als Halbstundenmittelwerte von Steinach Padastertal Dezember 2019
 Sviluppo dei valori medi meteorologici ogni mezz'ora registrati a Steinach Padastertal dicembre 2019



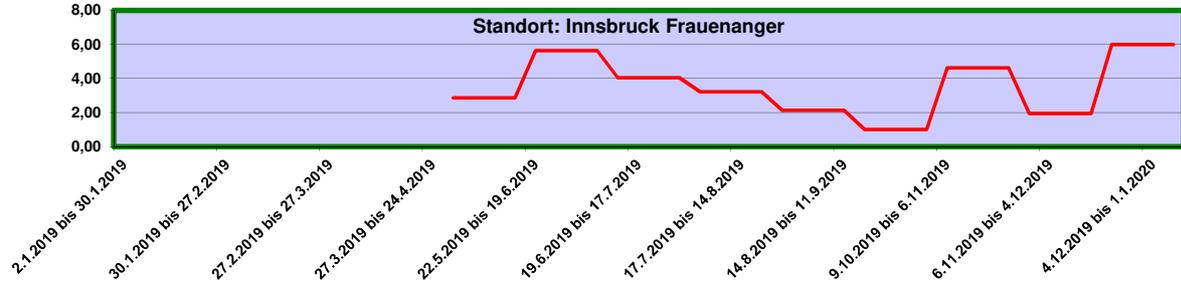
Staubniederschlag



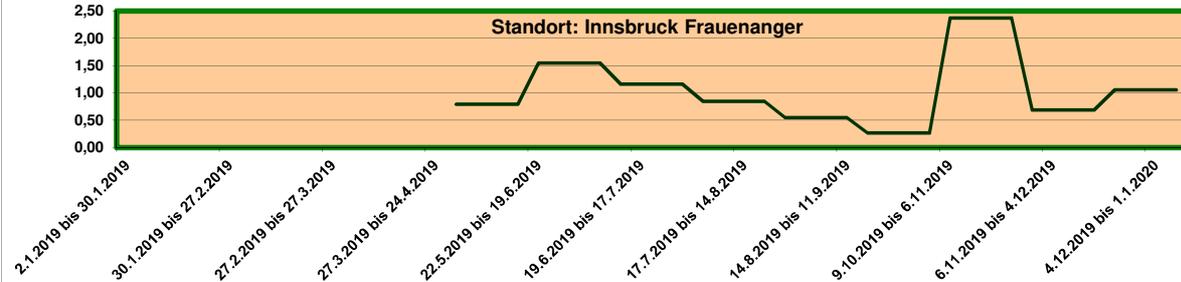
mg/m²/d org. Anteil

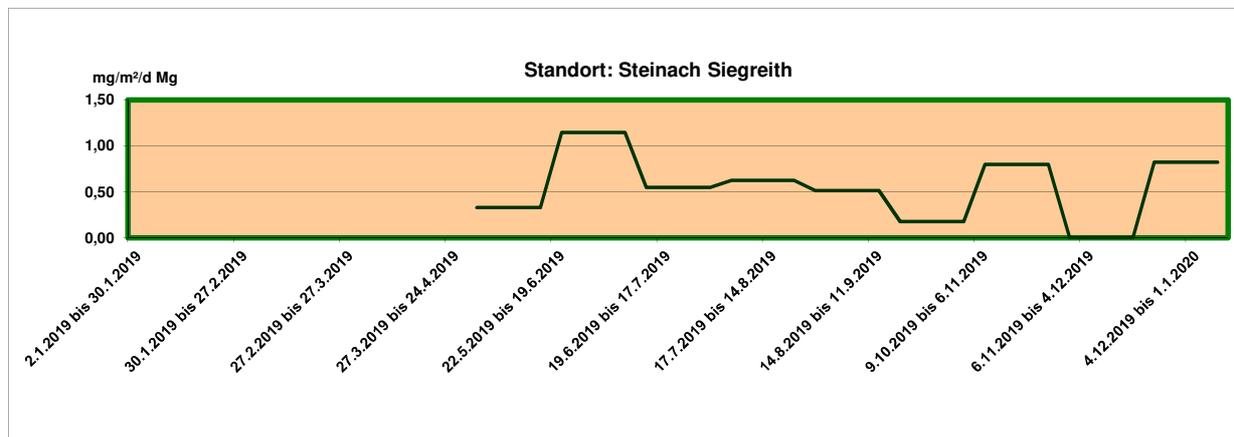
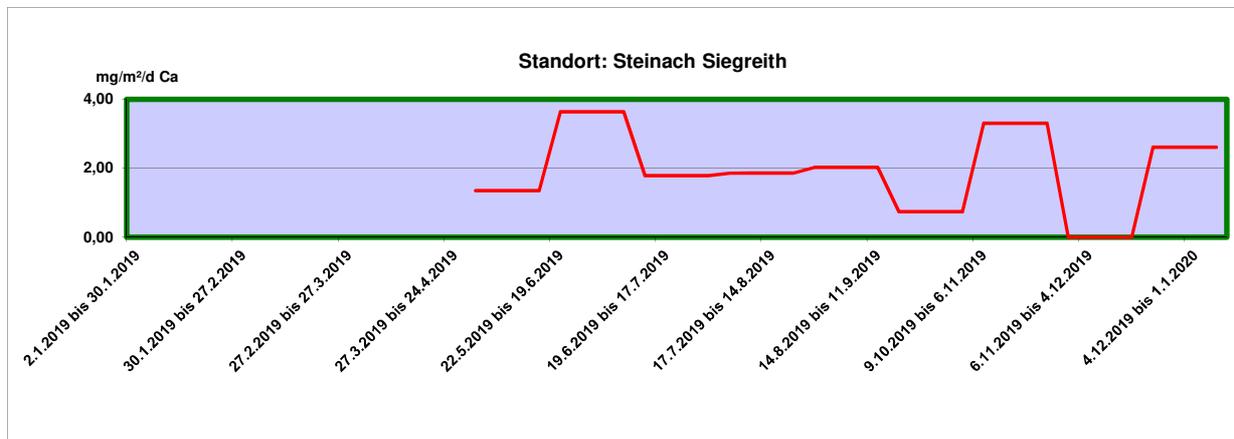
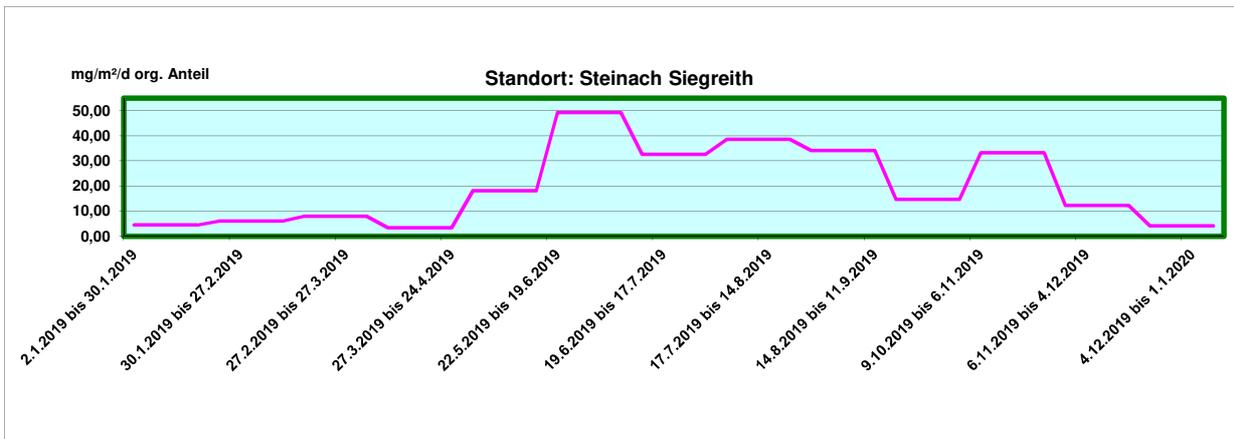
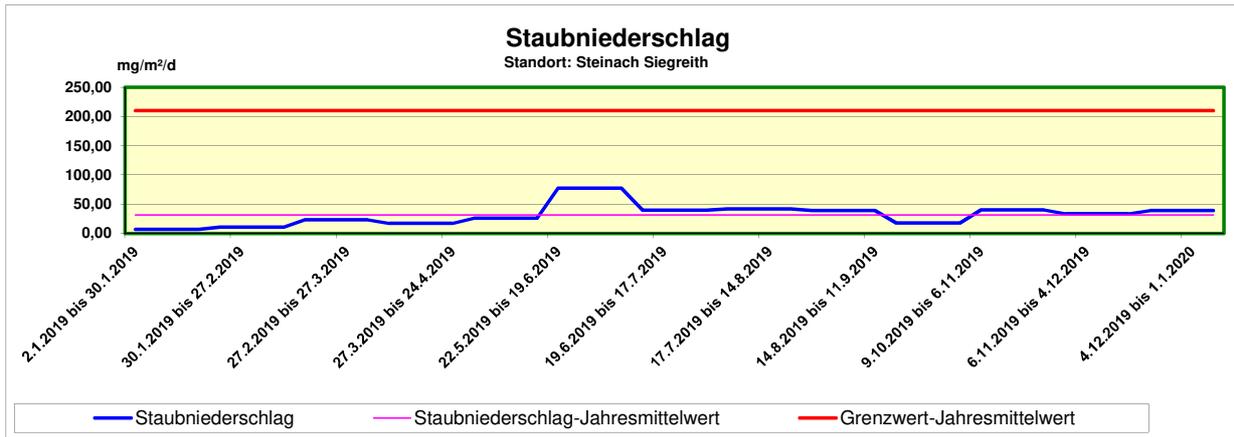


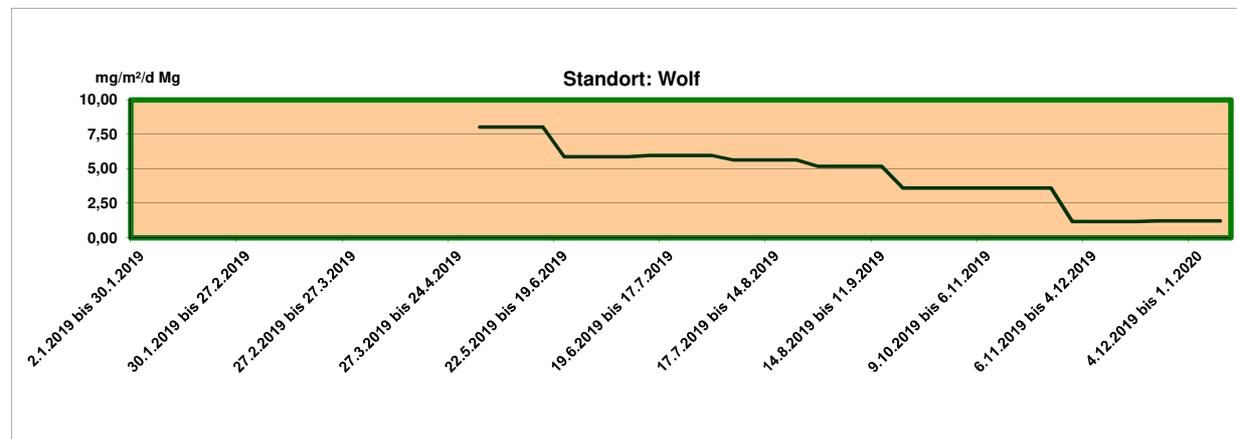
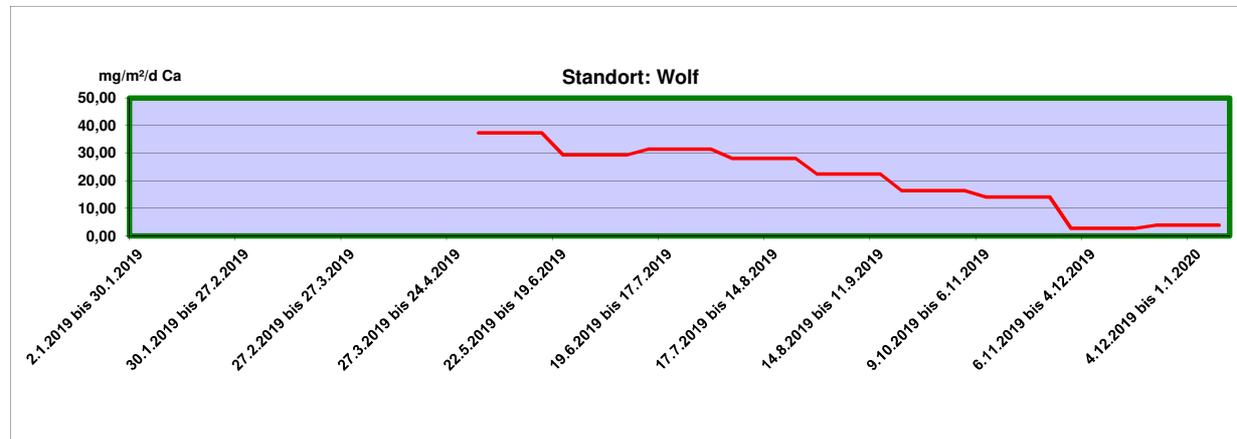
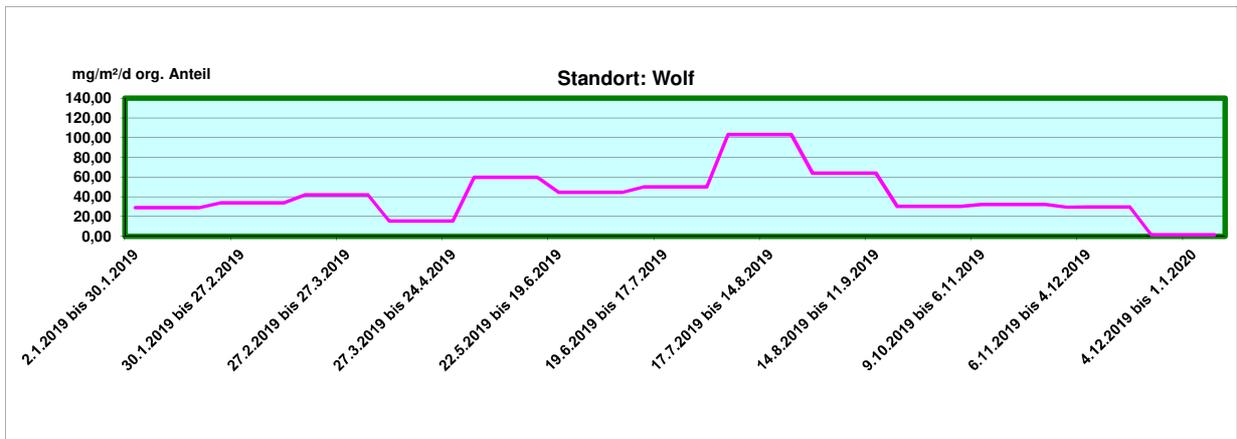
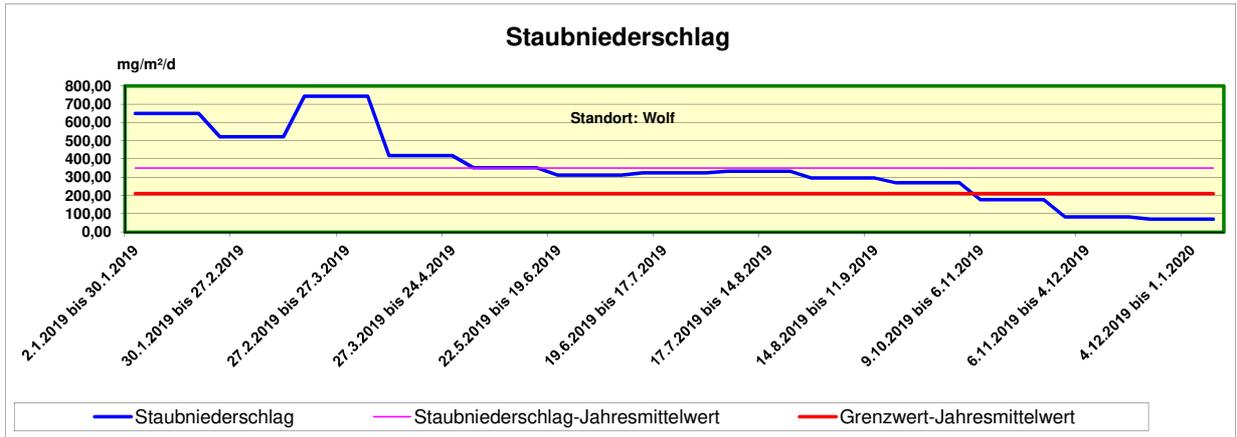
mg/m²/d Ca

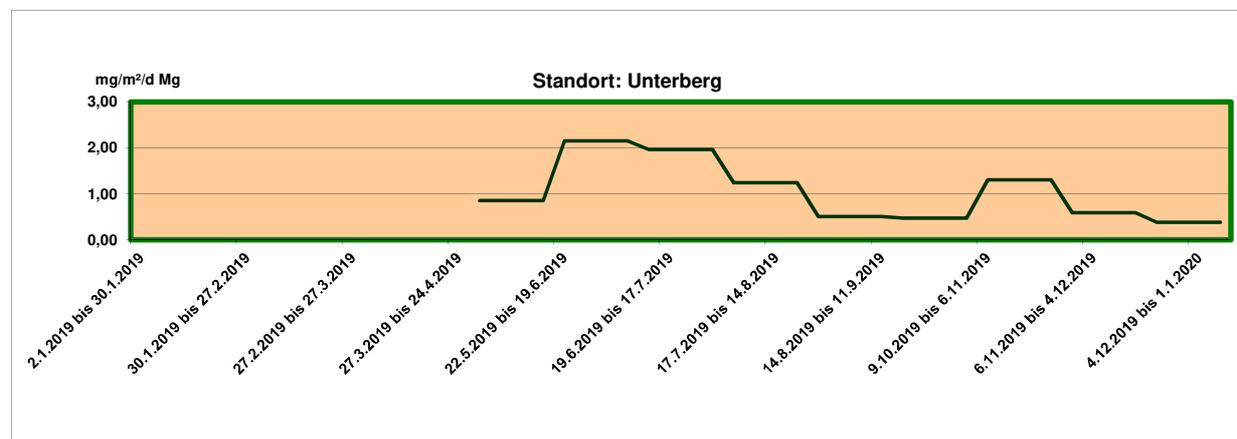
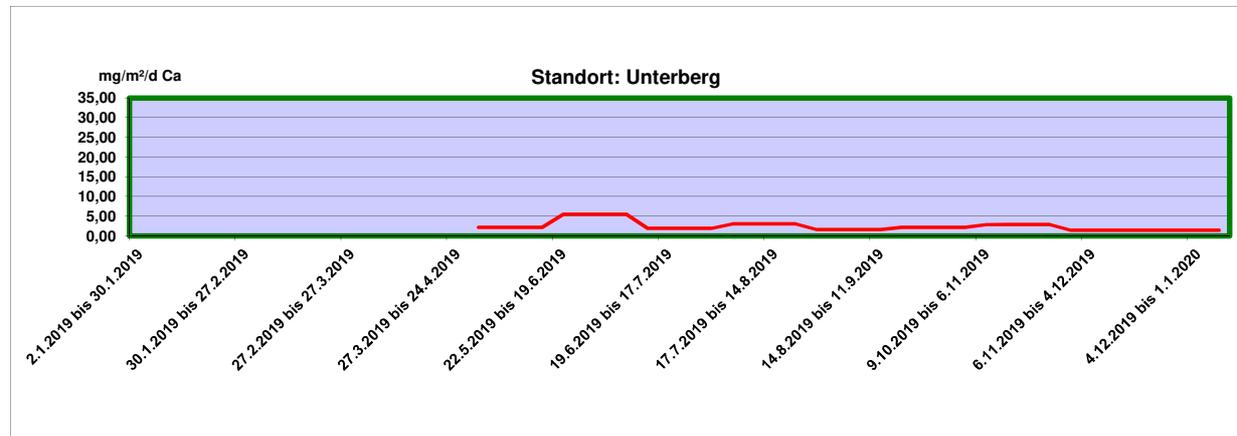
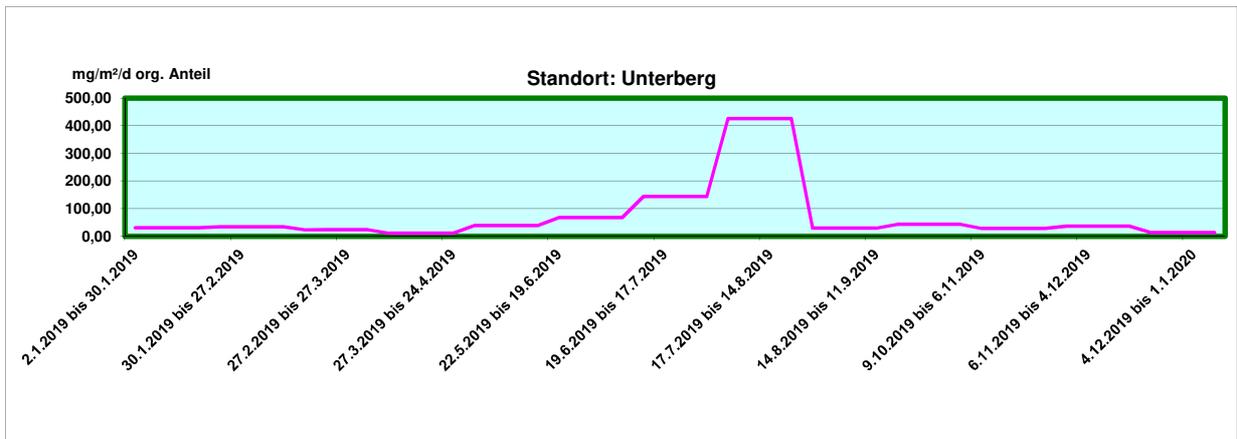
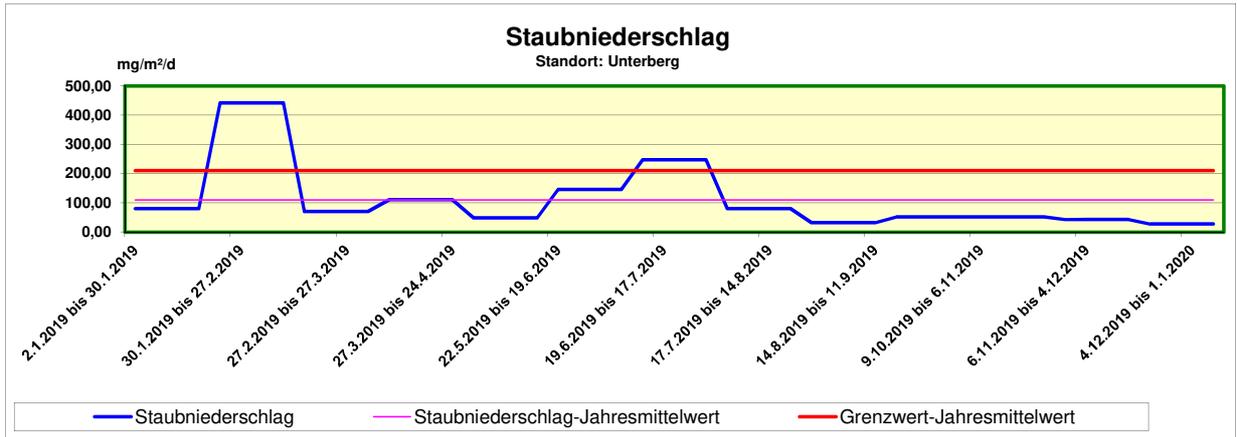


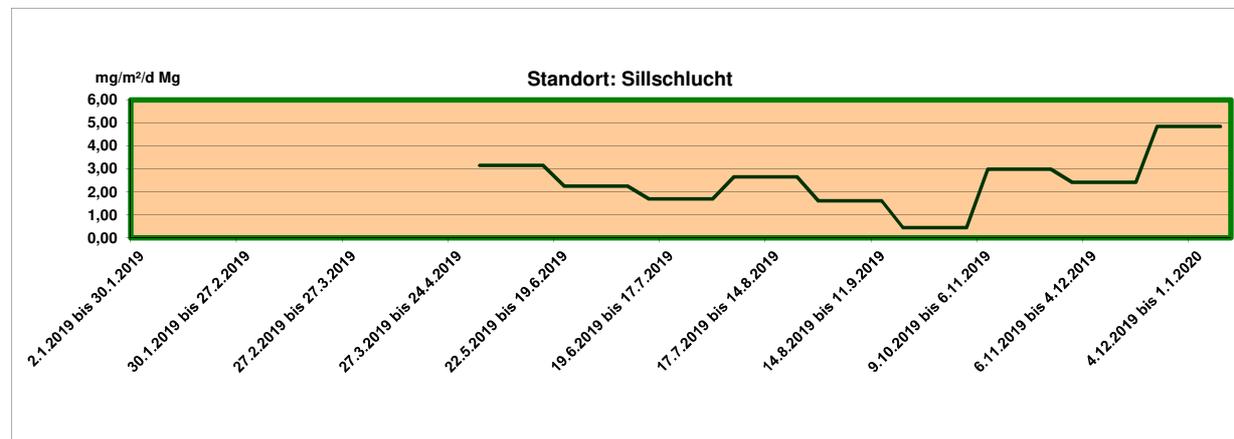
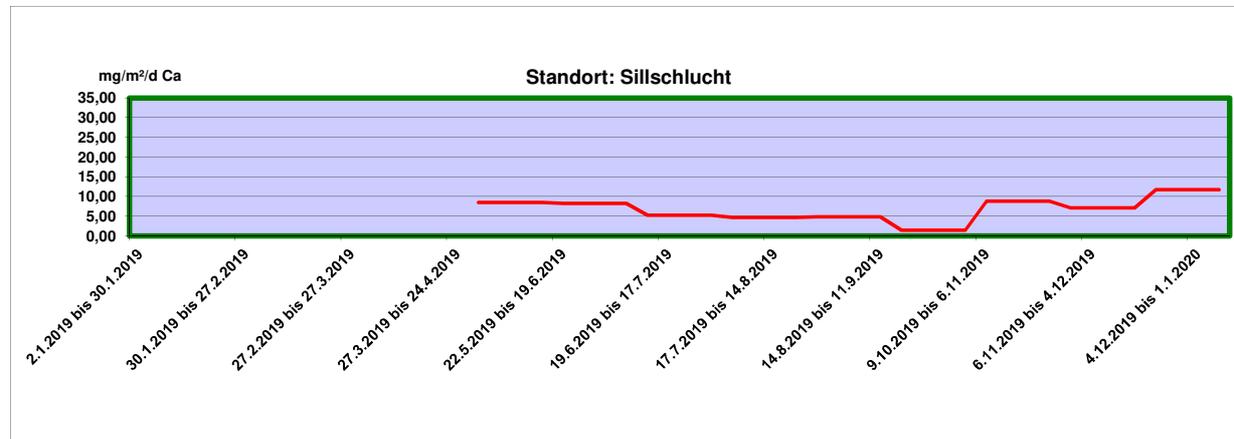
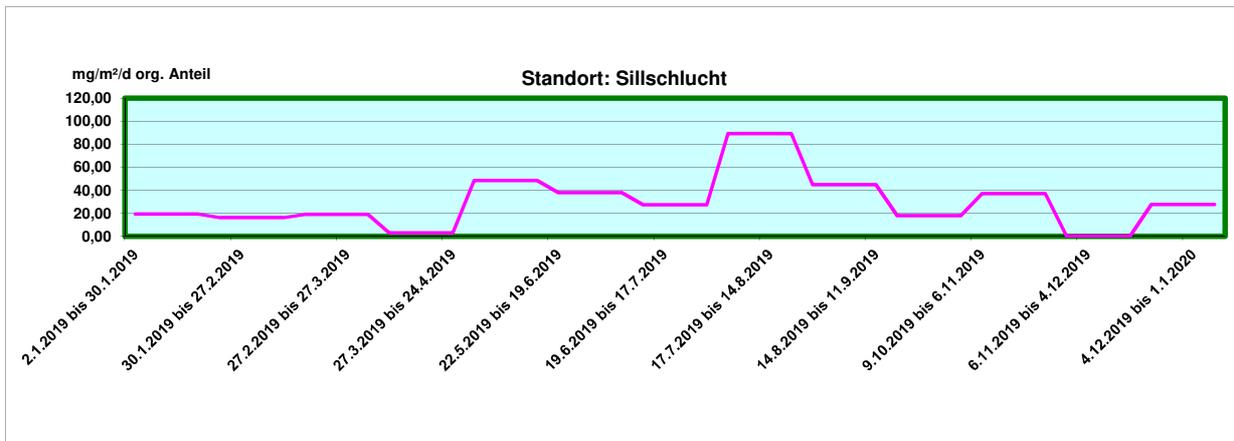
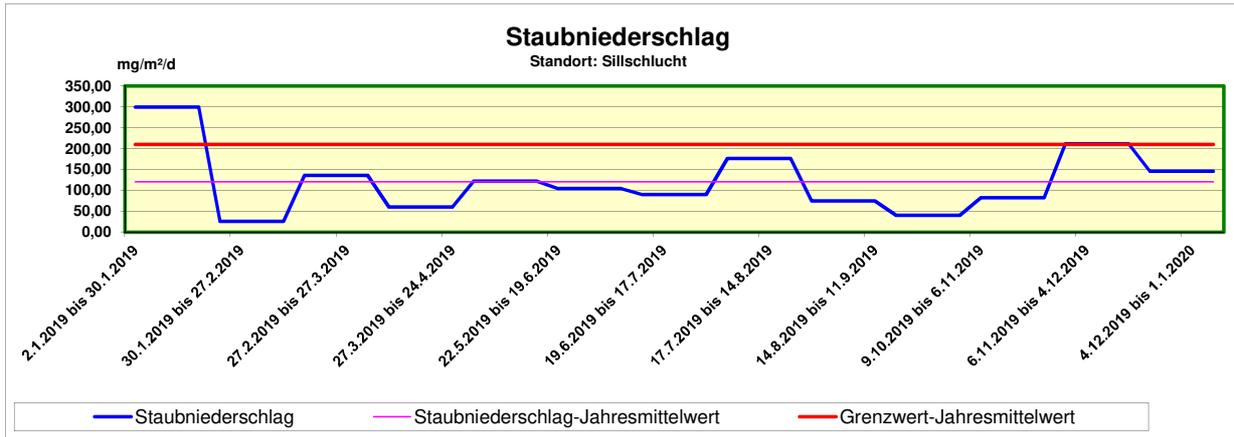
mg/m²/d Mg

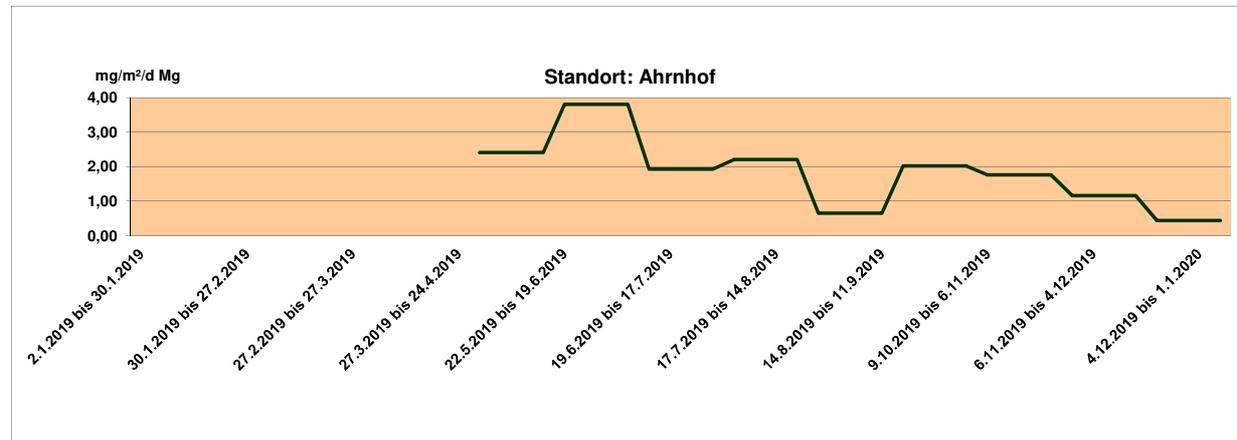
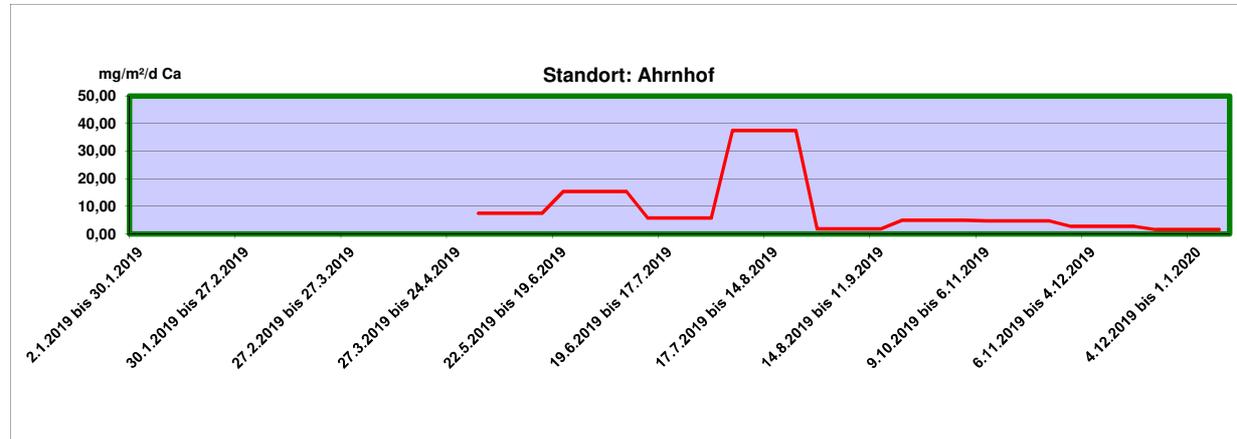
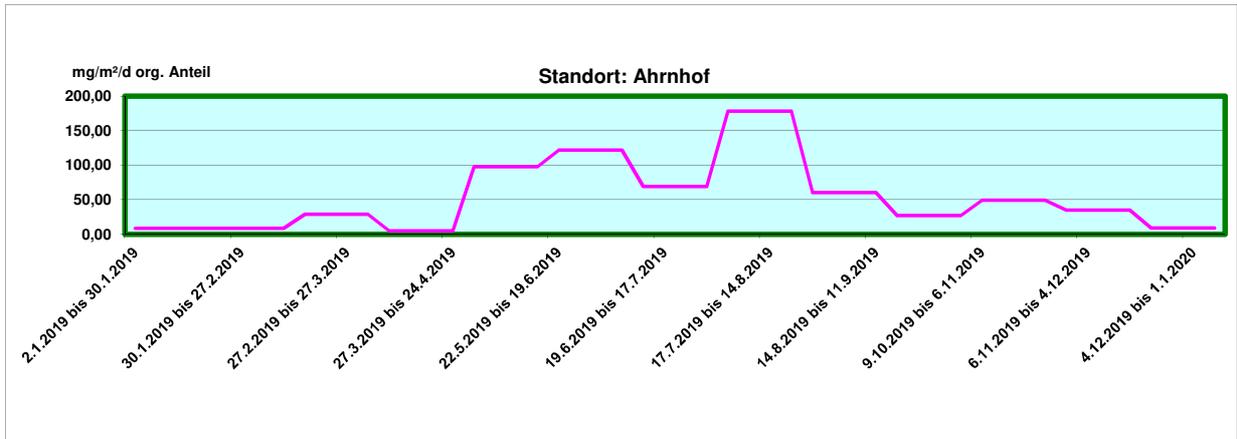
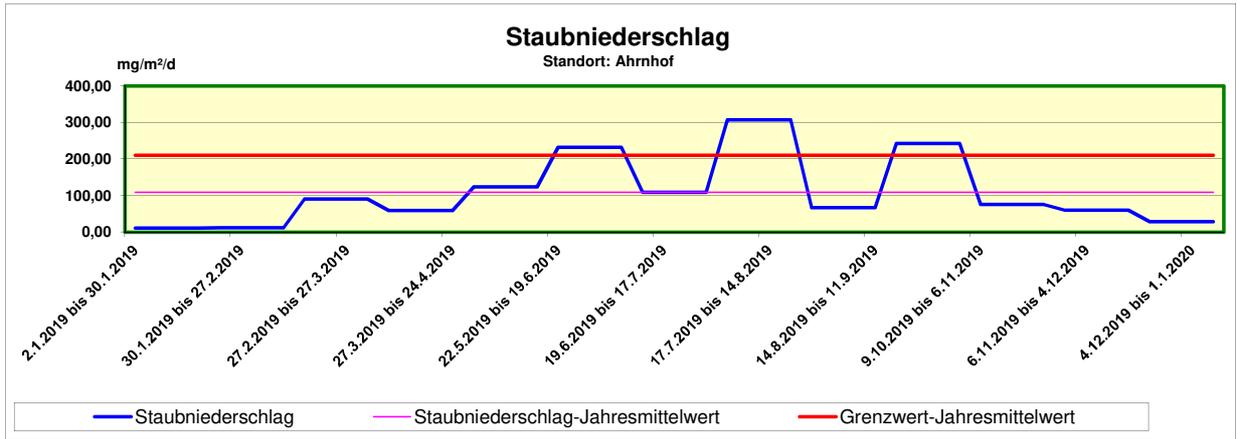


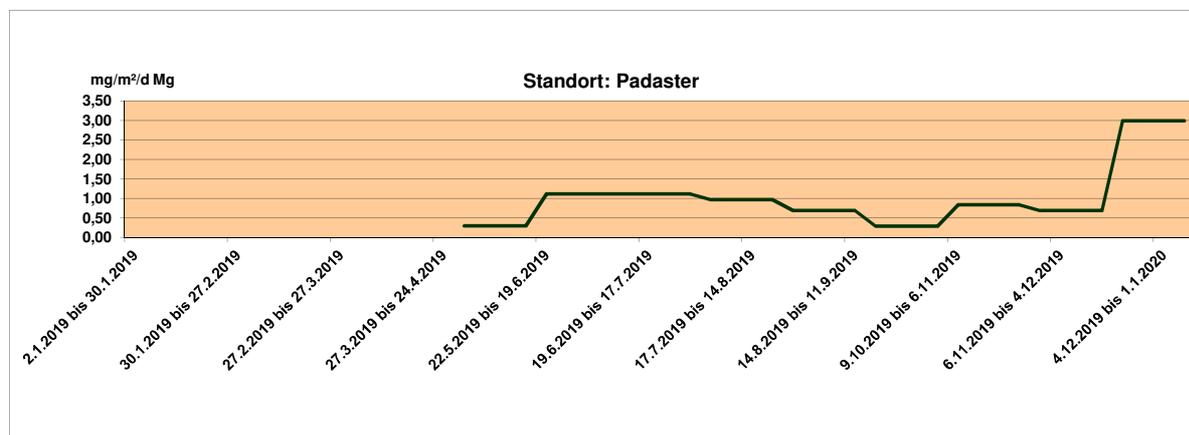
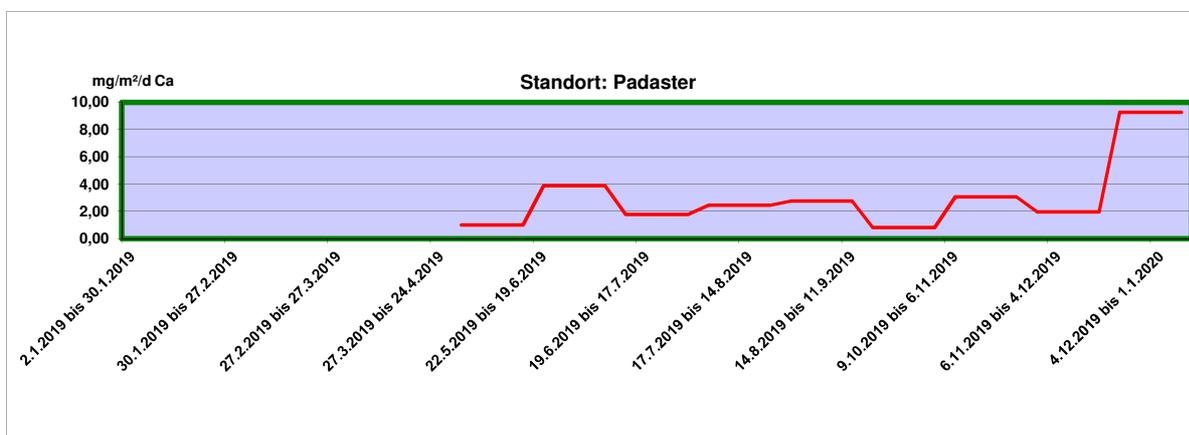
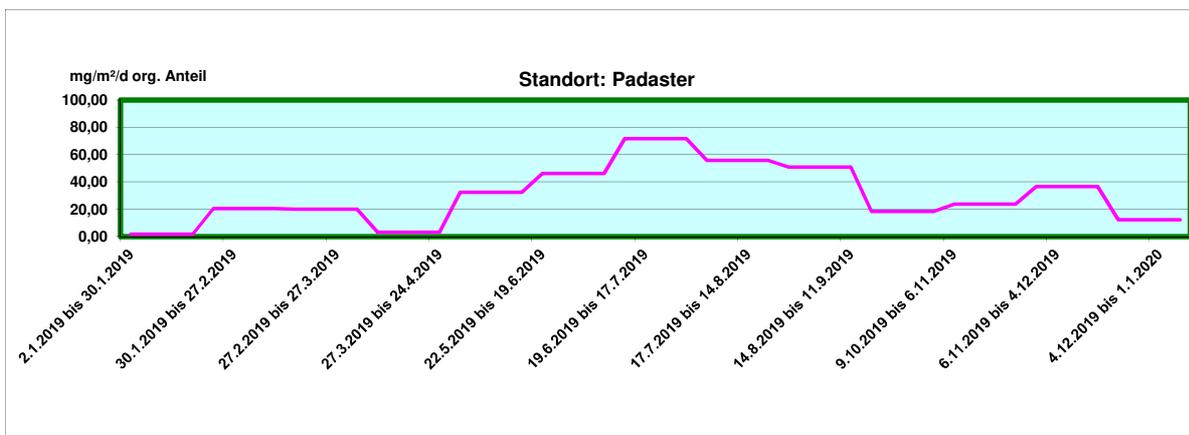
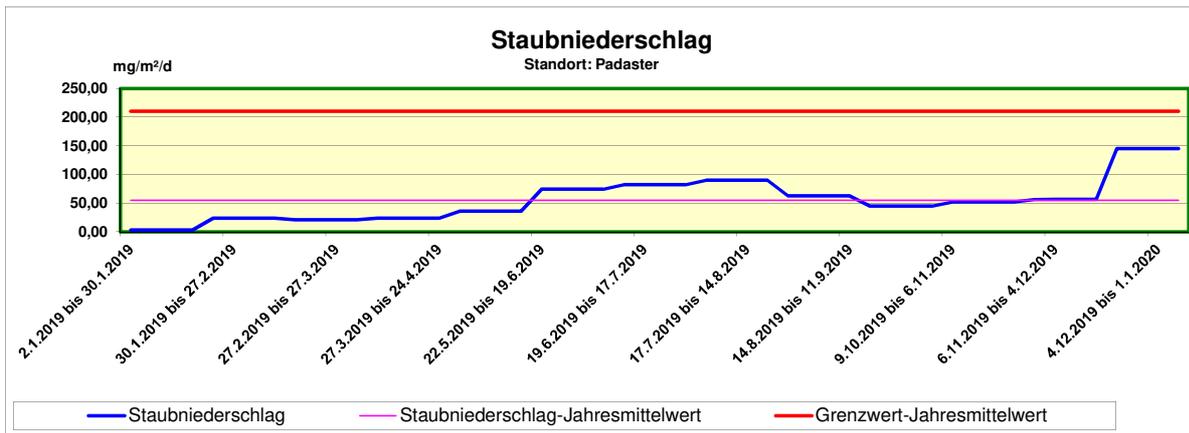


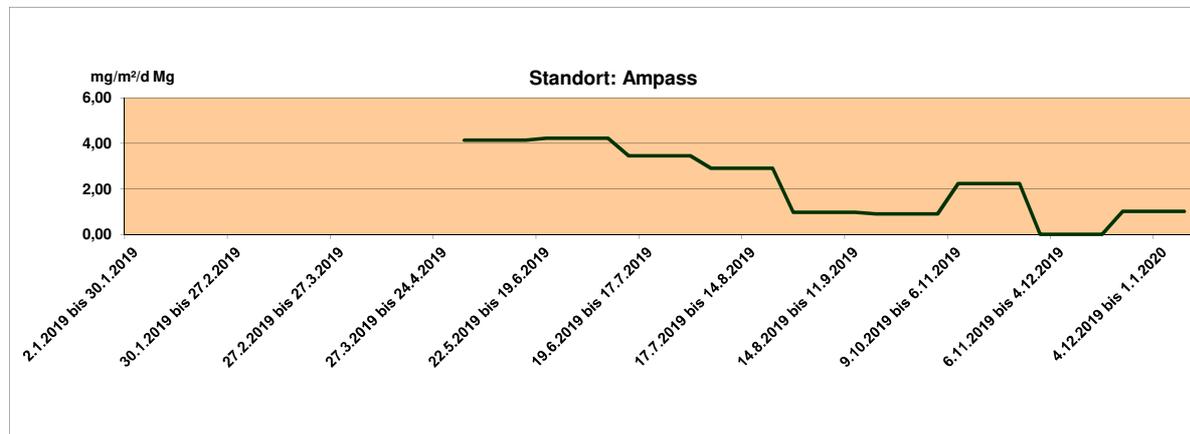
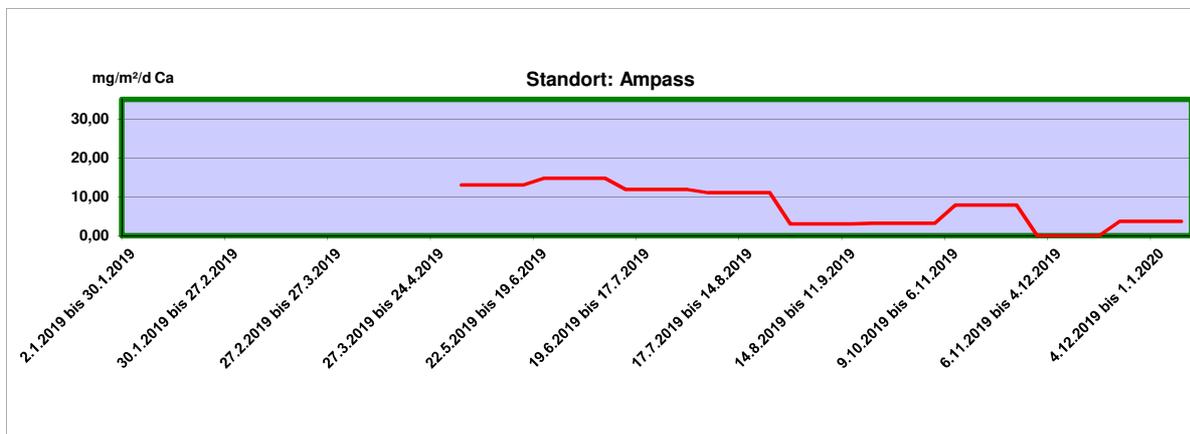
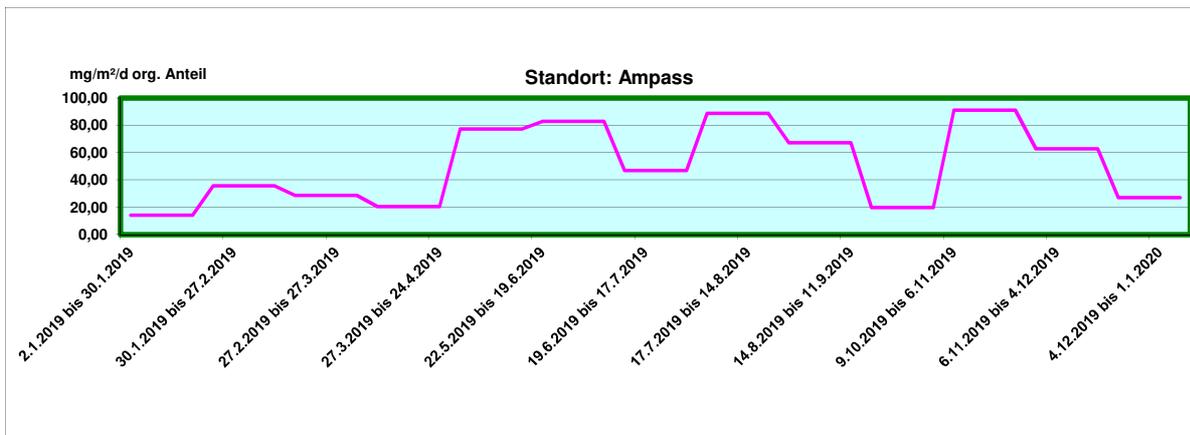
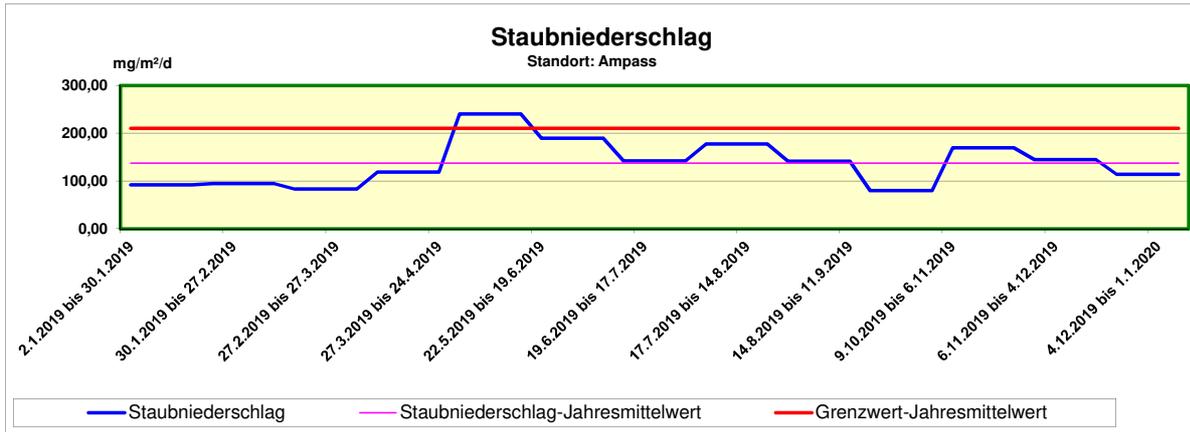












PM10 Tagesmittelwerte der BBT Immissionsstationen 2019

Datum	Frauenanger PM10 Feinstaub		Sillhöhe PM10 Feinstaub		Ampass PM10 Feinstaub		Tulfes PM10 Feinstaub		Steinach/Siegreith PM10 Feinstaub		Steinach/Saxen PM10 Feinstaub	
	Rohwerte	PM10(korr.)*	Rohwerte	PM10(korr.)*	Rohwerte	PM10(korr.)*	Rohwerte	PM10(korr.)*	Rohwerte	PM10(korr.)*	Rohwerte	PM10(korr.)*
	TMW	TMW	TMW	TMW	TMW	TMW	TMW	TMW	TMW	TMW	TMW	TMW
01.01.19	37,82	46,17			31,88	39,18	42,44	51,61	13,98	18,13		
28.02.19	17,47	22,24	17,67	22,47	14,52	18,76	11,61	15,34	16,75	21,39	43,11	52,40
04.03.19	8,86	12,11	10,64	14,20	17,26	21,99	11,65	15,39	8,77	12,00	53,70	64,86
06.03.19	12,77	16,71	12,64	16,56	17,24	21,97	12,03	15,83	6,71	9,57	78,12	93,58
13.03.19	6,69	9,55	6,45	9,27	11,07	14,71	6,12	8,88	7,10	10,04	63,24	76,08
21.03.19	14,07	18,23	14,07	18,24	30,17	37,18	9,82	13,24	12,34	16,20	61,06	73,52
22.03.19	13,58	17,66	12,44	16,32	28,76	35,51	12,46	16,34	9,16	12,46	62,63	75,36
01.04.19	18,30	23,21	16,08	20,59	30,99	38,14	16,48	21,07	11,14	14,79	41,45	50,45
15.04.19	13,19	17,20	14,46	18,70	26,74	33,14	14,39	18,61	9,23	12,54	48,17	58,36
16.04.19	5,00	7,57	6,55	9,39	13,90	18,03	6,07	8,82	2,68	4,83	57,00	68,74
17.04.19	9,37	12,70	11,11	14,75	21,32	26,77	10,52	14,05	8,72	11,94	51,02	61,71
18.04.19	12,49	16,37	12,07	15,88	17,69	22,49	11,24	14,91	10,59	14,14	76,34	91,50
23.04.19	11,03	14,66	7,97	11,05	11,98	15,78	13,98	18,13	7,18	10,13	68,00	81,68
24.04.19	10,71	14,28	5,92	8,64	11,92	15,71	8,89	12,14	4,21	6,64	54,57	65,89
25.04.19	10,70	14,27	8,70	11,92	15,84	20,31	8,53	11,72	6,16	8,93	52,88	63,89
02.05.19	9,38	12,72	10,16	13,63	17,71	22,52	9,98	13,42	10,02	13,47	119,16	141,88
08.05.19	8,10	11,21	9,17	12,47	12,81	16,76	8,87	12,12	7,46	10,46	81,29	97,31
04.06.19	9,81	13,22	8,60	11,80	14,03	18,19	9,15	12,45	9,15	12,45	42,21	51,34
06.06.19	16,01	20,52	15,50	19,91	17,61	22,40	15,94	20,43	16,09	20,62	42,61	51,81
11.06.19	15,25	19,62	17,94	22,79	16,98	21,66	13,27	17,30	26,28	32,60	54,04	65,26
12.06.19	18,02	22,89	16,79	21,44	20,94	26,32	15,71	20,17	26,42	32,77	50,85	61,51
13.06.19	11,78	15,54	12,25	16,09	15,28	19,66	9,46	12,81	12,25	16,09	41,71	50,75
26.06.19	35,61	43,57	34,81	42,63	37,31	45,57	33,25	40,79	34,17	41,88	47,35	57,39
27.06.19	35,54	43,50	36,84	45,02	44,25	53,74	35,12	43,00	32,37	39,76	43,64	53,03
22.10.19	20,13	25,37	19,59	24,73	26,37	32,71	17,68	22,49	21,51	26,99	49,59	60,02
Anzahl >50	0	0	0	0	0	1	0	1	0	0	15	24

Die hier als PM10(korr.) angegebenen Werte sind Werte, die aus kontinuierlichen Messungen unter Verwendung von PM10-Probenahmeköpfen erhoben und anschließend mit dem sog. "Gerätefaktor" $[\text{= } (c+1,43)/0,85]$ korrigiert wurden.