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environment and quality of life

EXCHANGE OF INFORMATION CONCERNING ATMOSPHERIC POLLUTION IN THE EUROPEAN COMMUNITY

Annual Report 1986



Report
EUR 12477 EN

Blow-up from microfiche original

Commission of the European Communities

environment and quality of life

EXCHANGE OF INFORMATION CONCERNING ATMOSPHERIC POLLUTION IN THE EUROPEAN COMMUNITY

Annual Report 1986

Daily data

Period: October 85 to September 86

Decision 82/459/EEC extending Decision 75/441/EEC

ENEX GROUP
Rue Van Elewyck 11
B-1050 BRUXELLES

Contract CCAM/87/321/B6642

FINAL REPORT

Directorate-General
Environment, Nuclear Safety and Civil Protection

PA	Birth
CL	con 35.555
EUR 12477	EN

1990

ms 75562

**Published by the
COMMISSION OF THE EUROPEAN COMMUNITIES
Directorate-General
Telecommunications, Information Industries and Innovation
L-2920 LUXEMBOURG**

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Catalogue number: CD-NA-12477-EN-C

ACKNOWLEDGMENTS

We wish to express our appreciation to Mr. A. Price for his constructive comments during the elaboration of this report.

We also express our thanks to Mrs. M.-Ch. Van Houtte for her collaboration.

ABSTRACT

The annual report 86 concerning the exchange of information on atmospheric pollution in the European Communities is presented in this document.

This report aims at presenting the content of the exchange of information as required by the Council Decision 82/459/EEC. Covering the period October 85 to September 86, it summarizes and evaluates the data for certain sulphur compounds and suspended particulates from measuring stations selected by the Member States in accordance with an agreed procedure.

RESUMEN

En el presente informe se ofrece un estudio de las cifras de contaminación atmosférica por agentes contaminantes específicos de los países de la Comunidad Europea. Abarca el período que se extiende entre octubre de 1985 y septiembre de 1986.

Para preservar la continuidad de los informes anuales, el formato de este documento es similar al de los informes anuales anteriores, aunque en él se han tenido en cuenta los comentarios y sugerencias de los coordinadores nacionales.

El informe se divide en dos partes. La primera consiste en una presentación general de las estaciones que han efectuado las mediciones; la segunda, en la que se evalúan los parámetros estadísticos que caracterizan la serie, consta a su vez de dos apartados:

- estadísticas descriptivas
- análisis periódicos

El objetivo principal de este informe acerca del intercambio de información es crear un documento de referencia.

RESUME

Denne beretning indeholder en analyse af luftforureningsdata for bestemte forurende stoffer i EF-landene. Den dækker tidsrummet fra oktober 1985 til september 1986.

Af hensyn til kontinuiteten i årsberetningerne er denne beretning stillet op på stort set samme måde som de tidligere årsberetninger, idet der er taget hensyn til de nationale koordinators bemærkninger og forslag.

Beretningen er delt i to dele. Den første del indeholder en generel beskrivelse af de målestationer, hvorfra oplysningerne stammer. Den anden del vedrører evalueringen af de statistiske parametre for serierne opdelt på:

- beskrivende statistik
- tidsrækkeanalyser

Hovedformålet med denne beretning om udvekslingen af oplysninger er at opnå et opslagsværk.

Zusammenfassung

In diesem Bericht wird eine Analyse der aus den Mitgliedstaaten der Europäischen Gemeinschaft stammenden Tagesdaten für bestimmte Luftschadstoffe vorgelegt. Er erstreckt sich auf den Zeitraum Oktober 85 bis September 86.

Aus Gründen der Einheitlichkeit ist dieses Dokument ähnlich aufgebaut wie seine Vorgänger, berücksichtigt jedoch die Bemerkungen und Empfehlungen der nationalen Koordinatoren.

Der Bericht besteht aus zwei Teilen. Der erste enthält eine allgemeine Vorstellung der Stationen, die Messungen vorgelegt haben. Der zweite Teil enthält die Bewertung der statistischen Parameter der Meßreihen und ist wie folgt gegliedert:

- deskriptive Statistik
- Zeitreihenanalysen

In erster Linie soll dieser Bericht über den gegenseitigen Austausch von Informationen ein Bezugsdokument darstellen.

ΠΕΡΙΛΗΨΗ

Η έκθεση αυτή παρουσιάζει μια ανάλυση των δεδομένων ατμοσφαιρικής ρύπανσης για ορισμένα αερολύματα στις χώρες των Ευρωπαϊκών Κοινοτήτων. Καλύπτει την περίοδο από Οκτώβριο 1985 μέχρι Σεπτέμβριο 1986.

Για να εξασφαλιστεί η συνέχεια των ετήσιων εκθέσεων, η παρουσίαση αυτού του εγγράφου είναι όμοια με αυτήν των προγενέστερων ετήσιων εκθέσεων και λαμβάνει υπόψη τις παρατηρήσεις και τις προτάσεις των Εθνικών Συντονιστών.

Η έκθεση διαιρείται σε δύο μέρη. Το πρώτο μέρος αφορά μια γενική παρουσίαση των σταθμών οι οποίοι διαβιβάζουν μετρήσεις. Το δεύτερο μέρος, σχετικά με την αξιολόγηση των στατιστικών παραμέτρων που χαρακτηρίζουν τις σειρές, υποδιαιρείται σε :

- περιγραφική στατιστική
- αναλύσεις χρονικών σειρών.

Κύριος στόχος αυτής της έκθεσης ανταλλαγής πληροφοριών είναι να αποτελέσει ένα έγγραφο αναφοράς.

SUMMARY

This report presents an analysis of the air pollution data for specific pollutants in the countries of the European Communities. It covers the period October 85 to September 86.

In order to ensure continuity of the annual reports, the presentation of this document is similar to the one of the previous annual reports and takes into consideration the comments and suggestions of the National Coordinators.

The report is divided in two parts. The first part concerns a general presentation of the stations which submitted measurements. The second part related to the evaluation of the statistical parameters characterizing the series is divided into:

- descriptive statistics
- time series analyses.

The main goal of this report on the exchange of information is to present a reference document.

RESUME

Le présent rapport propose une analyse des données journalières relatives à la pollution atmosphérique par des polluants spécifiques dans les pays de la Communauté européenne. Il couvre la période d'octobre 1985 à septembre 1986.

En vue d'assurer une continuité dans la présentation des rapports, la présentation de ce document est similaire à celle des rapports annuels antérieurs, tout en tenant compte des commentaires et propositions émis par les coordinateurs nationaux.

Le rapport comprend deux parties. La première partie consiste en une présentation générale des stations qui ont fourni des mesures. La seconde partie a trait à l'évaluation des paramètres statistiques caractérisant les séries et comprend elle-même les deux sections suivantes :

- statistiques descriptives
- analyse des séries chronologiques.

L'objectif principal de ce rapport relatif à l'échange d'informations est de constituer un document de référence.

SOMMARIO

La presente relazione contiene un'analisi dei dati giornalieri relativi a determinati inquinanti atmosferici nei paesi della Comunità europea e riguarda il periodo compreso tra l'ottobre 1985 e il settembre 1986.

Volendo garantire una certa continuità nelle relazioni annuali il presente documento è stato redatto in maniera analoga a quella delle relazioni degli anni precedenti e tiene conto dei commenti e dei suggerimenti dei coordinatori nazionali.

La relazione si compone di due parti: la prima presenta in generale le stazioni di misurazione che hanno trasmesso i dati mentre la seconda, relativa alla valutazione dei parametri statistici che caratterizzano le serie, si suddivide in:

- statistiche descrittive
- analisi di serie cronologiche.

L'obiettivo principale della presente relazione sullo scambio di informazioni è la presentazione di un documento di riferimento.

SAMENVATTING

Dit verslag bevat een analyse van de gegevens met betrekking tot de door specifieke stoffen veroorzaakte luchtverontreiniging in de landen van de Europese Gemeenschap. Het betreft de periode oktober 1985 tot en met september 1986.

Met het oog op de continuïteit van de jaarverslagen komt de presentatie van dit verslag in grote lijnen overeen met die van de voorgaande jaarverslagen, met dien verstande dat er rekening is gehouden met de opmerkingen en suggesties van de nationale coördinatoren.

Het verslag bestaat uit twee delen. In het eerste deel wordt een algemene beschrijving van de meetstations gegeven. Het tweede deel, dat betrekking heeft op de evaluatie van de statistische parameters waarmee de datareeksen worden gekarakteriseerd, is ingedeeld in:

- beschrijvende statistiek en
- tijdreeksanalyse.

Dit verslag met betrekking tot de gegevensuitwisseling is in de eerste plaats bedoeld als referentiëdocument.

SUMÁRIO

O presente relatório apresenta uma análise dos dados de poluição atmosférica relativos a poluentes específicos nos países das Comunidades Europeias. Abrange o período de Outubro de 1985 a Setembro de 1986.

Para assegurar a continuidade dos relatórios anuais, a apresentação deste documento é semelhante à dos relatórios anuais anteriores e toma em consideração os comentários e sugestões dos coordenadores nacionais.

O relatório divide-se em duas partes. A primeira diz respeito à apresentação geral das estações que efectuaram medições. A segunda parte, referente à avaliação dos parâmetros estatísticos que caracterizam as séries, divide-se em:

- estatística descritiva
- análise de séries cronológicas

O presente relatório sobre a troca de informações pretende essencialmente constituir um documento de referência.

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INTRODUCTION

The Council Decision 82/459/EEC extends the Decision 75/441/EEC which has established a common procedure for the exchange of information between the surveillance and monitoring networks based on data relating to atmospheric pollution caused by sulphur compounds and suspended particulates.

The new decision allows the measurements of additional pollutants i.e. NO_x, CO, O₃ and particulate heavy metals such as Lead, Cadmium, etc. over recommended averaging times.

To make the considerable amount of data submitted by the Member States available to the experts and to draw constructive conclusions on the content of the exchange of information on atmospheric pollution, annual reports summarizing the results of this exchange must be drafted.

It is important to consider the series of measurement received from the field stations in two perspectives, first on individual basis, to obtain *records of each station and their characteristics*, which may in turn lead to a representative selection or the establishment of standards. Secondly on a global basis to show the *yearly European situation* and hence to obtain an overall synopsis which may, for instance, fit into forecasting programmes. Both approaches are envisaged throughout this report and should certainly help clarifying the function and the role of such an important exchange system in the frame of the European programme for the protection of man and the environment.

This report covers four pollutants for which the Council Decision recommends an averaging time of 24 hours: i.e. sulphur compounds and suspended particulates. The heavy metals are not included in the report: these data require specific statistical treatment.

The time period considered is from October 85 to September 86 and the data series treated are those stored in the Commission archives as at the end of May 1988.

CHAPTER I. GENERAL PRESENTATION OF THE SERIES

This chapter covers two different items:

I.1 to I.3 : an overall description of the state of the exchange of information in the European Communities

I.4 and I.5 : some annual characteristics of the raw series

I.1 CONTENT OF THE EXCHANGE OF INFORMATION

A total of 312 series covering the period extending from 1 October 1985 up to 30 September 1986 have been stored in the Commission archives.

Table I.1, illustrated by Fig. I.1.1, gives the splitting between the four pollutants.

Table I.1

	Pollutant code				Tot
	1	2	3	4	
	SO ₂	Smoke	SPM	Acid	
no. of annual series	89	78	60	85	312
percentage	28.5	25.0	19.2	27.2	100 %

PROPORTION OF SERIES BY POLLUTANT

PERIOD: Oct.85 - Sept.86

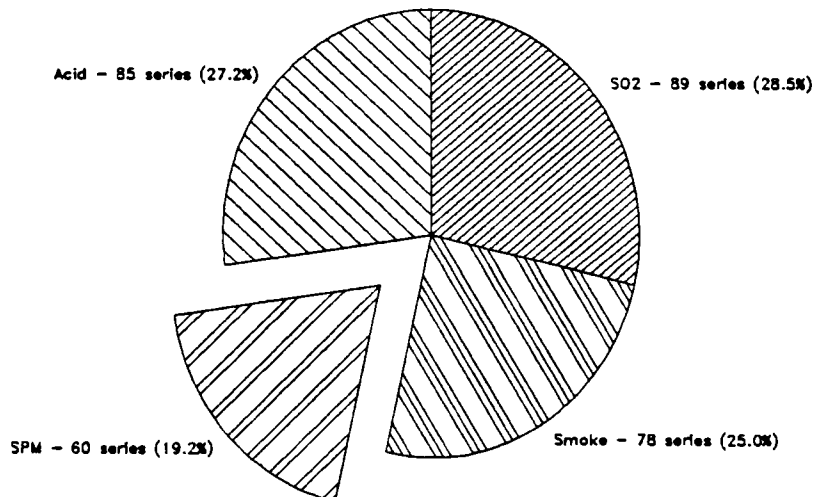


Fig. I.1.1

Table I.2, illustrated in Fig I.1.2, presents a summary of the number of annual series with respect to the town class in terms of number of inhabitants.

Table I.2

	Town class - (inhabitants)						Tot
	1 >2M	2 1-2M	3 .5-1M	4 .1-.5M	5 1-100	6 <1m	
no. of annual series	36	59	38	94	51	34	312
percentage	11.5	18.9	12.2	30.1	16.3	10.9	100 %

PROPORTION OF SERIES BY TOWN CLASS

PERIOD: Oct.85 - Sept.86

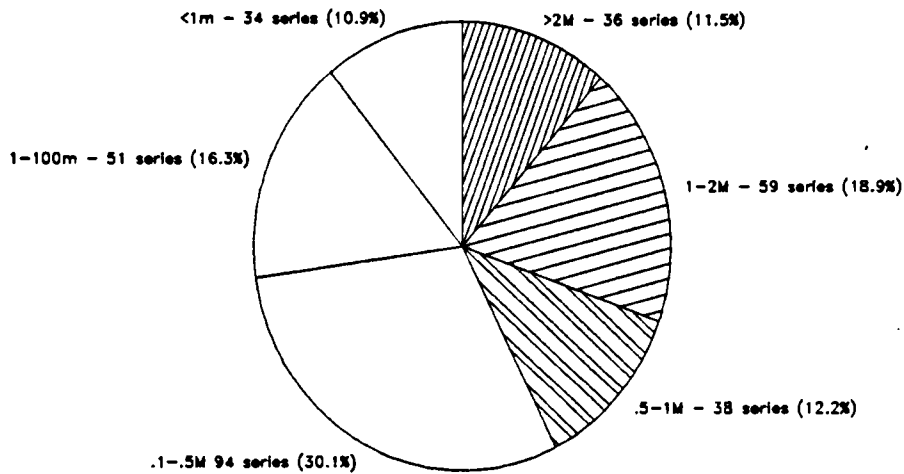


Fig. I.1.2

Table I.3, illustrated in Fig I.1.3, presents a summary of the number of annual series with respect to the countries.

Table I.3

	Country												Tot
	1	2	3	4	5	6	7	8	9	10	11	12	
	B	D	DK	F	IRL	I	L	NL	GB	E	GR	P	
no. of annual series	68	34	31	83	16	13	10	0	0	34	0	23	312
percentage	21.8	10.9	9.9	26.6	5.1	4.2	3.2	0.0	0.0	10.9	0.0	7.4	100.0%

PROPORTION OF SERIES BY COUNTRY

PERIOD: Oct.85 - Sept.86

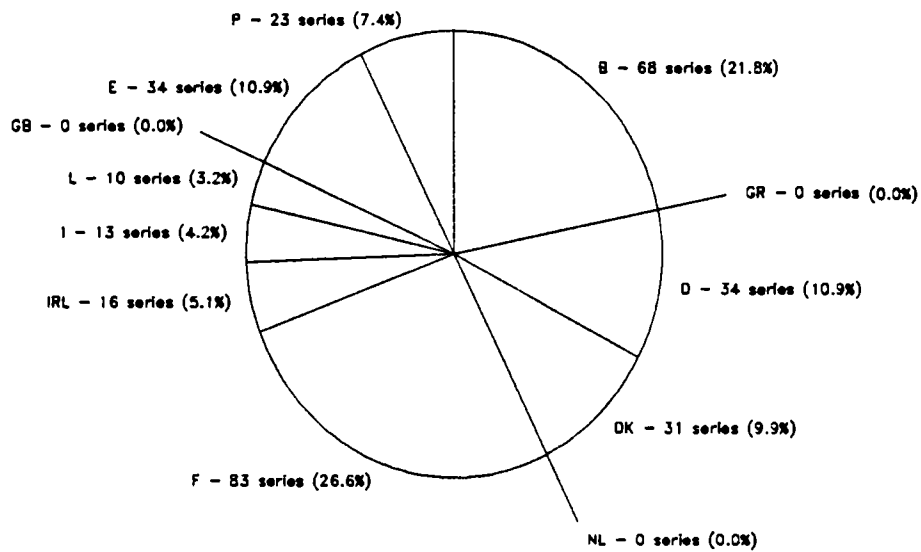


Fig. I.1.3

I.2 BREAKDOWN OF THE ANNUAL SERIES BY COUNTRY AND BY TOWN CLASS

Table I.4 summarizes the number of annual series for each town class and for each pollutant. The results are grouped by countries.

Table I.4

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Belgium	1	-	-	-	-	0
B	2	-	7	-	7	14
(1)	3	-	6	-	6	12
	4	-	18	-	18	36
	5	-	3	-	3	6
	6	-	-	-	-	0
	all	-	34	-	34	68

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Federal Rep of Germany	1	-	-	-	-	0
D	2	-	-	-	-	0
(2)	3	2	-	2	-	4
	4	-	-	-	-	0
	5	-	-	-	-	0
	6	15	-	15	-	30
	all	17	-	17	-	34

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Denmark	1	-	-	-	-	0
DK	2	7	-	6	-	13
(3)	3	-	-	-	-	0
	4	4	-	2	-	6
	5	8	-	4	-	12
	6	-	-	-	-	0
	all	19	-	12	-	31

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
France	1	2	5	1	5	13
F	2	7	5	-	5	17
(4)	3	6	-	2	2	10
	4	2	9	3	18	32
	5	4	-	5	2	11
	6	-	-	-	-	0
	all	21	19	11	32	83

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Ireland	1	-	-	-	-	0
IRL	2	-	-	-	-	0
(5)	3	-	5	-	5	10
	4	-	1	-	1	2
	5	-	1	-	1	2
	6	-	1	-	1	2
	all	-	8	-	8	16

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Italy	1	3	-	-	-	3
I	2	2	-	2	-	4
(6)	3	-	-	-	-	0
	4	1	-	1	-	2
	5	2	-	2	-	4
	6	-	-	-	-	0
	all	8	-	5	-	13

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Luxemburg	1	-	-	-	-	0
L	2	-	-	-	-	0
(7)	3	-	-	-	-	0
	4	-	-	-	-	0
	5	-	4	-	4	8
	6	-	1	-	1	2
	all	-	5	-	5	10

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
The Netherlands NL (8)	1	-	-	-	-	0
	2	-	-	-	-	0
	3	-	-	-	-	0
	4	-	-	-	-	0
	5	-	-	-	-	0
	6	-	-	-	-	0
	all	-	-	-	-	0

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
United Kingdom UK (9)	1	-	-	-	-	0
	2	-	-	-	-	0
	3	-	-	-	-	0
	4	-	-	-	-	0
	5	-	-	-	-	0
	6	-	-	-	-	0
	all	-	-	-	-	0

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Spain E (10)	1	11	-	9	-	20
	2	-	-	-	-	0
	3	1	1	-	-	2
	4	5	4	1	-	10
	5	1	1	-	-	2
	6	-	-	-	-	0
	all	18	6	10	-	34

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Greece GR (11)	1	-	-	-	-	0
	2	-	-	-	-	0
	3	-	-	-	-	0
	4	-	-	-	-	0
	5	-	-	-	-	0
	6	-	-	-	-	0
	all	-	-	-	-	0

	town class	Pollutant				tot
		1 SO ₂	2 Smoke	3 SPM	4 Acid	
Portugal	1	-	-	-	-	0
P	2	2	3	3	3	11
(12)	3	-	-	-	-	0
	4	-	3	-	3	6
	5	4	-	2	-	6
	6	-	-	-	-	0
	all	6	6	5	6	23

Remarks:

- France, Portugal and Spain have transmitted data on respectively 4, 4 and 3 pollutants; the other countries report for a couple of pollutants (SO₂ - SPM or Smoke - Acid).

In summary:

SO₂ : D, DK, F, I, E, P

Smoke: B, F, IRL, L, E, P

SPM : D, DK, F, I, E, P

Acid : B, F, IRL, L, P

- three countries (Germany, Ireland and Luxemburg) have transmitted data from background sites.

I.3 BREAKDOWN OF THE ANNUAL SERIES BY THE MEASUREMENT TECHNIQUE CODES (TM)

Table I.5 compares the measurement technique codes used by each Member State for the period October 85 - September 86 in terms of annual series. The results are grouped by pollutant.

It is important to remind that the codes of measurement technique not only cover the sampling and the calibration but also in some countries, the laboratory or the organization responsible for the analysis.

Table I.5No. of annual series for SO₂

TM	country												tot
	1 B	2 D	3 DK	4 F	5 IRL	6 I	7 L	8 NL	9 GB	10 E	11 GR	12 P	
5	-	2	-	-	-	-	-	-	-	-	-	-	2
13	-	15	-	-	-	-	-	-	-	-	-	-	15
22	-	-	-	-	-	2	-	-	-	-	-	-	2
24	-	-	-	-	-	3	-	-	-	-	-	-	3
25	-	-	-	-	-	3	-	-	-	-	-	-	3
27	-	-	12	-	-	-	-	-	-	-	-	-	12
28	-	-	1	-	-	-	-	-	-	-	-	-	1
29	-	-	6	-	-	-	-	-	-	-	-	-	6
34	-	-	-	-	-	-	-	-	-	-	-	2	2
35	-	-	-	8	-	-	-	-	-	-	-	-	8
36	-	-	-	11	-	-	-	-	-	-	-	-	11
37	-	-	-	2	-	-	-	-	-	-	-	-	2
38	-	-	-	-	-	-	-	-	-	12	-	-	12
39	-	-	-	-	-	-	-	-	-	2	-	-	2
40	-	-	-	-	-	-	-	-	-	4	-	-	4
41	-	-	-	-	-	-	-	-	-	-	-	4	4
all	-	17	19	21	-	8	-	-	-	18	-	6	89

No. of annual series for Smoke

TM	country												tot
	1 B	2 D	3 DK	4 F	5 IRL	6 I	7 L	8 NL	9 GB	10 E	11 GR	12 P	
1	-	-	-	-	-	-	5	-	-	-	-	-	5
3	34	-	-	-	-	-	-	-	-	-	-	-	34
4	-	-	-	-	5	-	-	-	-	-	-	-	5
5	-	-	-	-	2	-	-	-	-	-	-	-	2
6	-	-	-	-	1	-	-	-	-	-	-	-	1
10	-	-	-	19	-	-	-	-	-	-	-	-	19
24	-	-	-	-	-	-	-	-	-	6	-	-	6
25	-	-	-	-	-	-	-	-	-	-	-	6	6
all	34	-	-	19	8	-	5	-	-	6	-	6	78

No. of annual series for SPM

TM	country												tot
	1 B	2 D	3 DK	4 F	5 IRL	6 I	7 L	8 NL	9 GB	10 E	11 GR	12 P	
3	-	2	-	-	-	-	-	-	-	-	-	-	2
8	-	15	-	-	-	-	-	-	-	-	-	-	15
15	-	-	-	-	-	5	-	-	-	-	-	-	5
18	-	-	-	11	-	-	-	-	-	-	-	-	11
20	-	-	-	-	-	-	-	-	-	-	-	5	5
47	-	-	12	-	-	-	-	-	-	-	-	-	12
49	-	-	-	-	-	-	-	-	-	1-	-	-	10
all	-	17	12	11	-	5	-	-	-	10	-	5	60

No. of annual series for Acid

TM	country												tot
	1 B	2 D	3 DK	4 F	5 IRL	6 I	7 L	8 NL	9 GB	10 E	11 GR	12 P	
1	-	-	-	-	-	-	5	-	-	-	-	-	5
3	34	-	-	-	-	-	-	-	-	-	-	-	34
4	-	-	-	-	5	-	-	-	-	-	-	-	5
5	-	-	-	-	2	-	-	-	-	-	-	-	2
6	-	-	-	-	1	-	-	-	-	-	-	-	1
8	-	-	-	1	-	-	-	-	-	-	-	-	1
9	-	-	-	-	-	-	-	-	-	-	-	6	6
11	-	-	-	31	-	-	-	-	-	-	-	-	31
all	34	-	-	32	8	-	5	-	-	-	-	6	85

This table indicates whether countries are using one code preferably or not.

Although it does not appear in the previous table, it is also worth noting that 7 stations of Denmark measure SO₂ according to two different measurement techniques. These stations as well as the techniques used are presented in Table I.6:

Table I.6

TM	Measurement technique	Station identifier PPCVSSS	Town name
27	colorimetric	03201103	Kobenhaven
28	coulometric		
27	colorimetric	03401815	Aalborg
29	UV fluorescence	03402915	Odense
		03501565	Esbjerg
		03502515	Fredericia
		03503351	Naestvest
		03504635	Randers

For more details about the measurement techniques, the reader should refer to the Descriptive Table of the Commission.

Figures I.3.1 to I.3.7 (pages F.1 to F.7) present the coefficients of correlation and the orthogonal regression lines for the seven stations. All data have been taken into consideration to compute the regression lines.

Remark :

- Fig. I.3.1 and I.3.2 point out some peculiar measurements aligned along a vertical axis. In such a case, the regression line could be biased.

I.4 THE MONTHLY MEDIAN

Before applying any treatment on the data received from the Member States, a reduction operation is necessary to obtain a useful and interpretable parameter.

One such reduction parameter is the monthly median, which gives the middle value of the ranked daily data. The tables of Annex 1 contain the list of the monthly medians for each station.

The results are computed on the basis of the (unselected) values received by the Commission. The measurement units are the $\mu\text{g}/\text{m}^3$ for SO_2 , Smoke, SPM and Acid.

The representativity of the median values is related to the number of daily measured values.

Remark:

It must pointed out that the whole set of values involved in this exchange and presented in this report does not necessarily reflect the real situation of the atmospheric pollution in the European Communities for the following reasons:

- *the exchange of information concerns only a selection of measurement stations.*
- *the majority of the stations are located in urban areas.*
- *the coverage is not equivalent in each Member State.*
- *the policy for placing stations differs between Member States and even regions or towns.*
- *the extra-boundaries pollutants transport can considerably increase the local pollution level.*

I.5 CHARACTERISTICS OF THE ANNUAL SERIES

Annex 2 summarizes the main characteristics and occurrences shown by all the series received for the period October 1985 - September 1986 before any selection.

The first ten columns concern the completeness of the series and point out several limit values:

MONTH label used: month

number of months (monthly records) stored in the archives of the Commission for the period considered .

BLANK and REP labels used: bla and rep

respectively the numbers of BLANK and REP found in the records. The label BLANK is a letter code used for a day with no valid measurement for any reason, while the label REP is the code used to indicate a single measurement over several days.

FIVE SPACES FIELDS label used: spa

number of five spaces fields found in the records. These fields symbolize a non existing day in the year (e.g 31st September). Normally each series should contain 7 fields "space" for the period considered since all the monthly records contain 31 data fields.

NULL VALUES label used: ze

number of null values. From an analytical point of view, null values have no meaning and one should preferably speak about "below the detection limit".

VALUES ABOVE 9999 MEASUREMENT UNITS label used: >9999

number of values higher than 9999 measurement units considered as an upper limit above which values become unlikely and hence require confirmation from the Member State.

MEASURED VALUES

label used: cas

number of cases or measured values found in the records. This excludes the BLANK, REP and spaces field but includes the null values.

MINIMUM and ITS OCCURRENCE

labels used: min and occ

the lowest (non null) value observed and its occurrence.

MEDIAN

label used: med

the median is computed on the basis of all the values found in the annual series. The null values are taken into consideration.

The following two columns illustrate the practical accuracy of the series:

DISCONTINUITIES

label used: gap

the number of discontinuities in a fixed range of the distribution i.e. between the minimum value and the median.

MISSING DIGIT

label used: dig

symbol indicating the number of missing digits in the series. It is composed of a number of missing digits in the tens and a number of missing digits in the units.

The last column gives a status code for each series associated to the following hierarchical conditions:

hierarchical condition	status code
no. of month < 12	1
no. of "BLANK" + space > 177	2
no. of val. with concentration > 9999 measurement units	3
no. of measured values + REP < 240	4
no. of REP > 104	5
else	0

This status code will allow to select or to reject the series in the subsequent treatments.

Remark:

- 41.6% of the series for SO_2 and 47.1% of the series for Acid contain at least one null value. The percentages are lower for Smoke and SPM with respectively 7.7% and 3.3%.

The following histograms illustrate some of the results presented in Annex 2.

Figure I.5.1 shows the breakdown of the annual series with respect to the number of months contained in each series.

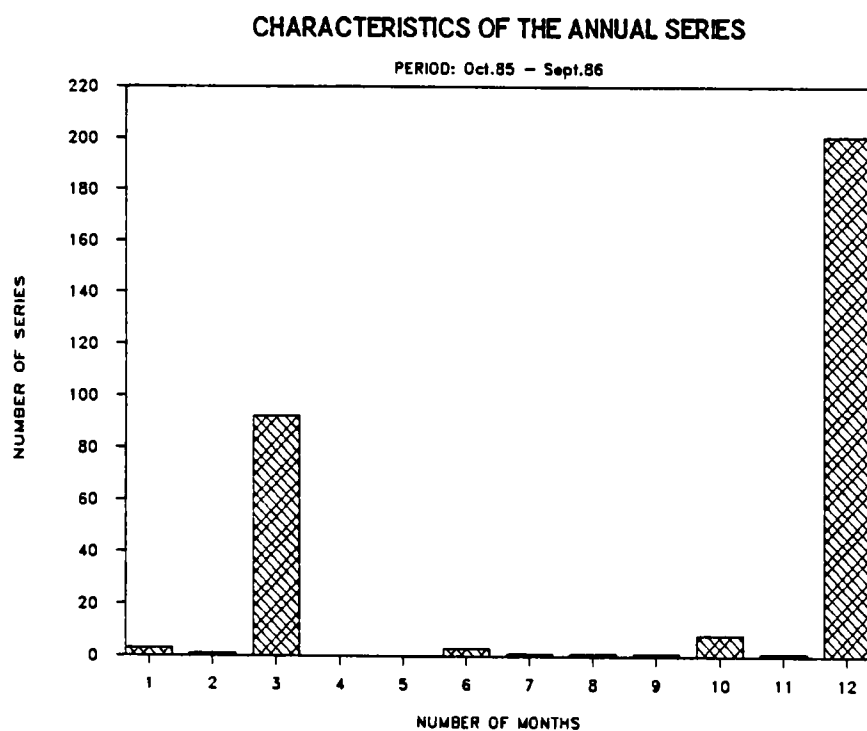


Fig. I.5.1

Remark:

The peak at 12 months corresponds to 201 series (64.4%). Another peak at 3 months corresponds to 92 series (29.5%). The average number of months per series is 9.05.

Figure I.5.2 presents the breakdown of the series according to the percentage of measured values contained in each series (no meas. val./3.65).

The class noted "0" covers the series which contain less than 5% of measured values, the class "10" the series containing between 5 and 15% and so on.

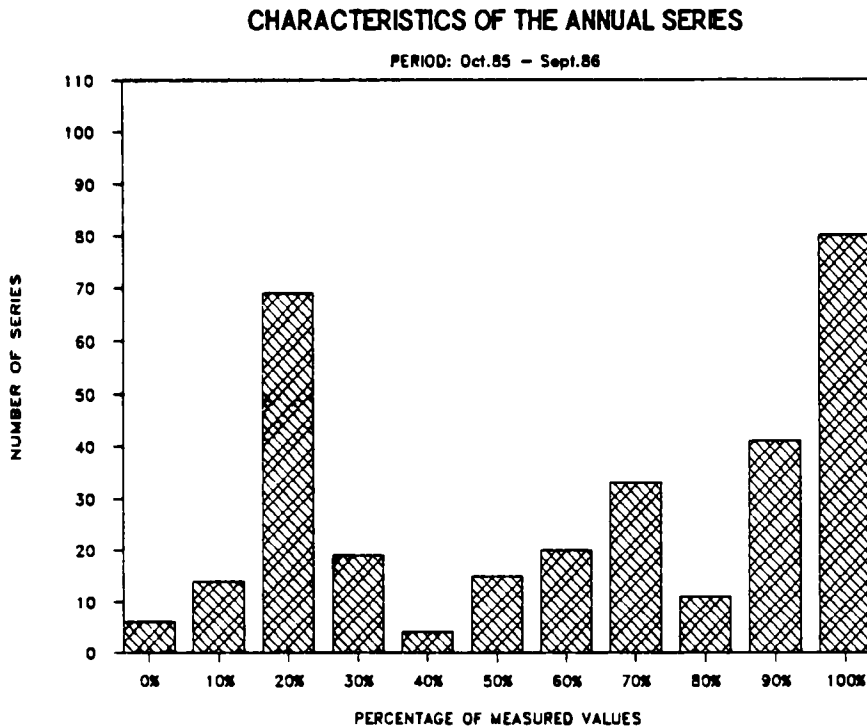


Fig. I.5.2

Remark:

132 series (42.3%) contain 75% and more of measured values.

Figure I.5.3 presents the cumulated percentages of series containing a certain proportion of "BLANK" labels. The percentage of BLANK is determined by the ratio between the number of BLANK and the number of measurements plus the number of BLANK.

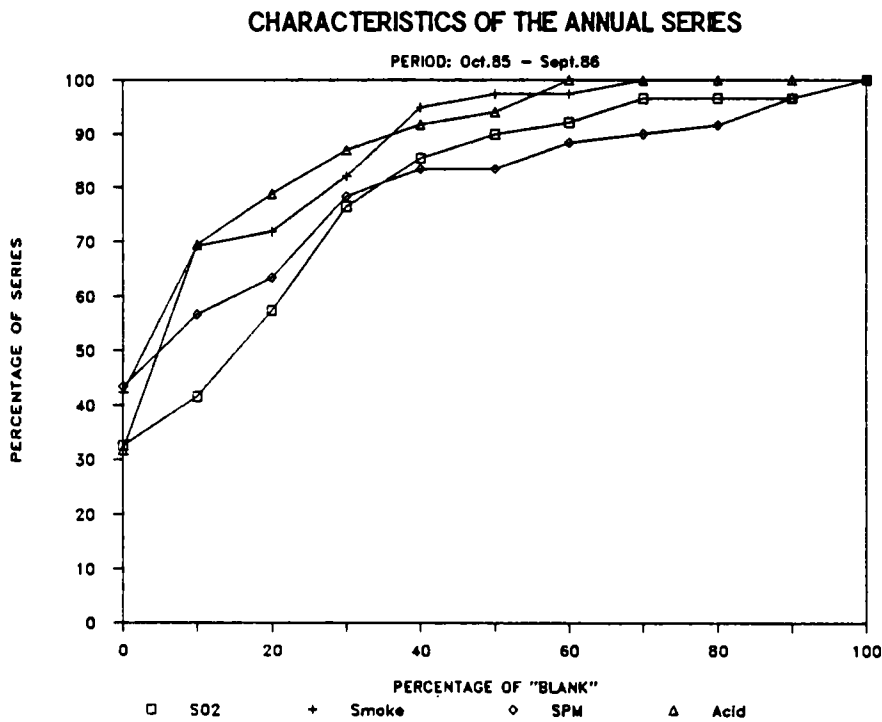


Fig. I.5.3

Remark:

For SO₂, 57.3% of the series present a percentage below 25%. The figures are respectively of 71.8%, 63.3% and 78.8% for Smoke, SPM and Acid.

CHAPTER II. TREATMENT OF THE SELECTED SERIESII.1 INTRODUCTION

This chapter presents three major topics:

- non parametric statistics
- parametric statistics
- some characteristics of the time series.

Annexes and Figures accompany each of the above topics.

Table II.1 summarizes the number of series associated with one of the reject codes described in Chapter I.5.

Table II.1

country	condition						total
	0	1	2	3	4	5	
B (1)	64	-	-	-	4	-	68
D (2)	30	4	-	-	-	-	34
DK (3)	26	5	-	-	-	-	31
F (4)	0	83	-	-	-	-	83
I (5)	14	-	2	-	-	-	16
IRL (6)	0	11	2	-	-	-	13
L (7)	8	-	2	-	-	-	10
NL (8)	-	-	-	-	-	-	0
GB (9)	-	-	-	-	-	-	0
E (10)	19	8	5	-	2	-	34
GR (11)	-	-	-	-	-	-	0
P (12)	3	-	8	-	12	-	23
total	164	111	19	-	18	-	312

The series associated with the code 1, 2, 3 and 4 are rejected in the subsequent treatments. The reader should refer to I.5 for the signification of these reject codes.

After the application of the selection criteria, 164 series (52.6%) have been retained.

The low number of series is due to:

Germany	no data for town classes 1 to 5 except Dortmund and Duisburg
France	no data from January 86 onwards
The Netherlands	no data
United Kingdom	no data
Greece	no data

Figure II.1.1 shows the proportion of rejected and selected series for the pollutants SO₂, Smoke, SPM and Acid. Table II.2 summarizes the results of the selection process.

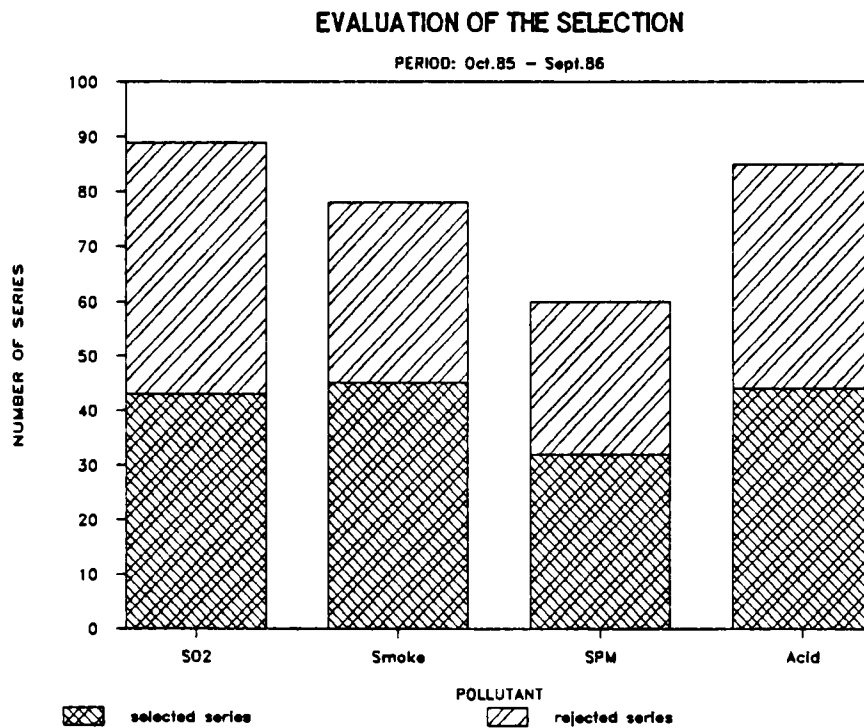


Fig. II.1.1

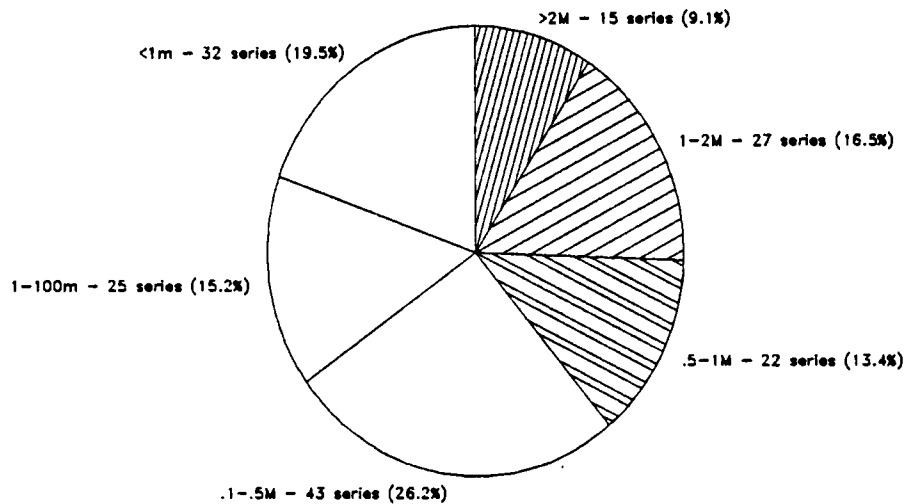
Table II.2

	pollutant				Tot
	1 SO ₂	2 Smoke	3 SPM	4 Acid	
no. of annual series	89	78	60	85	312
no of annual series selected	43	45	32	44	164
percentage of selection	48.3	57.7	53.3	51.8	52.6

Fig. II.1.2 illustrates the repartition of the selected series between the classes of town.

PROPORTION OF SERIES BY TOWN CLASS

PERIOD: Oct.85 - Sept.86

Fig. II.1.2

Remarks:

Before presenting the results of the treatments, it is important to underline the following remarks:

- the whole set of values involved in this exchange and presented in this report does not necessarily reflect the real situation of the atmospheric pollution in the European Communities for the reasons presented in I.4.
- the representativity of the parameters is dependent on the number of measured values. The selection performed guarantees a minimum of 240 daily values. This also means that 2/3 of the 12 months period are covered and thus the series contain necessarily measurements taken during the winter and summer periods.
- the statistics performed in this report are only descriptive statistics, and not inferential statistics. That is, the parameters presented are reductions of the sample of the measurements sent by each Member State, and not estimators of the effective pollution level of the area covered by the station.
- some parameters like the kurtosis may appear sophisticated. However these parameters are presented in this report because they show the characteristics of the distribution of the air pollution values.
- the reader must be careful when interpreting general graphics, such as histograms since the numbers of selected series are low.

II.2 NON-PARAMETRIC STATISTICS

Annex 3 gives the yearly percentiles 25, 50, 75, 95, 98 computed for the selected series and both the maximum and the minimum values recorded for each series.

This Annex should be compared with the plot of the median, the interquartile range and the 98 percentile for each series presented in the Fig. II.2.1 to II.2.4 (pages F.8 to F.11).

Remark:

Such a presentation gives an idea of the dissymmetry of the distribution. It also allows rapid comparison of the whole set of series grouped by pollutant.

Based also on results presented in Annex 3, two groups of scattered diagrams are presented for each pollutant, in the Fig. II.2.5 to II.2.12 (pages F.12 to F.19).

Remark:

In these figures as well as in the other figures where the values are plotted with the country code as label, Spain, Greece and Portugal are respectively indicated with the letters A, B and C.

The first group (Fig. II.2.5 - II.2.8) concerns the correlation between central tendency parameters (median) and a marker of the higher values (percentile 98).

The second group (Fig. II.2.9 - II.2.12) concerns the correlation between central tendency parameters (median) and a central dispersion tendency parameter (interquartile range).

Fig. II.2.13 (page F.20) presents the relation between the median associated with a town class and the town class. The illustrative label used is the country code.

Remark:

Comparisons between country levels are doubtful without knowledge of the differences between the measurement methods.

II.3 PARAMETRIC STATISTICS

Annex 4 gives some descriptive statistics computed for the selected series: the mean, the standard deviation, the variation coefficient, the skewness, a shape estimator, and the kurtosis.

II.3.1 Definitions

A succinct description of the descriptive parameters computed is listed below (see definition in Comparative study on data analysis - part 2: Descriptive statistics and data reduction - Technical Report no 2, April 1984, APRECO).

MEAN

Label used: mean

The mean is the most common measure of central tendency for variable measured at interval-level. Often referred to as the "average", it is merely the sum of the individual values for each case divided by the number of cases.

STANDARD DEVIATION

Label used: std.d

The standard deviation is a measure of the dispersion of the data about the mean of an interval-level variable. This statistic is one way of measuring how closely the individual scores of the variable cluster around the mean. The standard deviation has the same units as the original variable.

VARIATION COEFFICIENT

Label used: V

The variation coefficient is a relative measure of the dispersion (without units).

$$V = \text{std.d} / \text{mean}$$

SKEWNESS:

Label used: skew

Skewness measures deviation from symmetry. The measure of skewness will take on a value of zero when the distribution is completely symmetric. A positive value indicates that the cases are clustered more to the left of the mean with most of the extreme values to the right. A negative value indicates clustering to the right. For example, a normal distribution is completely symmetric and has a skewness value of zero. A lognormal distribution is dissymmetric with a positive value for skewness.

SHAPE ESTIMATOR: (cf. APRECO 84)

Label used: D

The skewness and the kurtosis are usually applied to compare the relative frequency function with the theoretically normal distribution. Since other shape may also be expected, an estimator D of the frequency distribution shape is defined:

$$D = \text{skew} / (V (V^2 + 3))$$

D has the following properties:

- D = 0 normal distribution
- D = 0.364 Maxwell
- D = 0.37 Rayleigh
- D = 0.5 Chi-Square with 2 degrees of freedom
- D = 0.6 Chi-Square with 6 degrees of freedom
- D = 1 log-normal.

KURTOSIS

Label used: kurt

Kurtosis is a measure of the relative peakedness or flatness of the curve defined by the distribution.

A normal distribution will have a kurtosis of zero. If the kurtosis is positive, then the distribution is more peaked than a normal distribution, while a negative value means that it is flatter.

Remark:

Relative descriptive parameters (such as V, skew, D, kurt) can be used to compare stations or pollutants without any assumption of conversion factors.

II.3.2 Histograms: (Fig. II.3.1 to II.3.7)

The histograms corresponding to each of the above parameters are presented in Fig. II.3.1 to II.3.7 (pages F.21 to F.27). The histograms of the medians (presented in Annex 3) have also been included in these figures.

The following tables (II.3.1 to II.3.7) summarize the histograms and present the range of values in which lie more than 50% of the values.

Table II.3.1 - MEDIAN

pollutant	% of series	range value med in $\mu\text{g}/\text{m}^3$
SO ₂	51.1	2.5 - 12.5
Smoke	62.2	7.5 - 17.5
SPM	56.3	25 - 45
Acid	61.4	20 - 40

Table II.3.2 - MEAN

pollutant	% of series	range value mean in $\mu\text{g}/\text{m}^3$
SO ₂	53.6	7.5 - 22.5
Smoke	57.7	12.5 - 22.5
SPM	68.8	32.5 - 62.5
Acid	59.0	25 - 45

Table II.3.3 - STANDARD DEVIATION

pollutant	% of series	range value std in $\mu\text{g}/\text{m}^3$
SO ₂	60.5	10 - 30
Smoke	71.1	8.75 - 23.75
SPM	71.9	23.75 - 38.75
Acid	61.4	20 - 40

Table II.3.4 - VARIATION COEFFICIENT

pollutant	% of series	range value V
SO ₂	55.8	0.375 - 1.125
Smoke	64.4	0.65 - 0.95
SPM	53.1	0.45 - 0.65
Acid	68.2	0.30 - 0.70

Table II.3.5 - SKEWNESS

pollutant	% of series	range value skw
SO ₂	60.5	2.25 - 3.75
Smoke	60.0	1.75 - 2.75
SPM	59.4	0.75 - 1.75
Acid	70.4	1.25 - 2.25

Table II.3.6 - SHAPE ESTIMATOR

pollutant	% of series	range value shp
SO ₂	51.2	0.20 - 0.60
Smoke	60.0	0.475 - 0.775
SPM	65.6	0.475 - 0.925
Acid	75.0	0.6 - 1.0

Table II.3.7 - KURTOSIS

pollutant	% of series	range value kurt
SO ₂	60.5	0.0 - 11.5
Smoke	60.0	2.0 - 8.0
SPM	53.2	2.0 - 6.0
Acid	63.6	2.0 - 6.0

Remarks:

- Compared to the mean, the shift of the median to the left illustrates the dissymmetry of the distributions.
- All series present a positive skewness indicating a left clustering of the values.
- As a general rule for all pollutants, the frequency distribution is far from a normal distribution (shape estimator $D = 0$) and not precisely a log-normal distribution (shape estimator $D = 1$).
- Only one series (for SPM) presents a negative value for kurtosis.

II.4 CHARACTERISTICS OF THE TIME SERIES

Annex 5 contains some characteristics of the time series:

- the ratio of the number of summer to winter measurements
- the seasonal percentiles 50 and 98
- the parameters of the annual regression line
- the number of the 3 days persistences for a concentration value higher than $125 \mu\text{g}/\text{m}^3$.

The winter is defined as the period October 85 to March 86 and the summer, the period April 86 to September 86.

This is an arbitrary balanced splitting of the year. In fact, only a spectral analysis of a time series performed over several years can detect seasonal periodicity.

The scatter diagrams between the median and the percentile 98 presented in Annex 5 are drawn for both seasons in Fig. II.4.1 to II.4.8 (pages F.28 to F.31).

Remark:

A scattering of values clearly appears in winter for SO_2 and Smoke.

The Fig. II.4.9 to II.4.16 (pages F.32 to F.35) compare the percentiles of the winter and the summer period.

The orthogonal regressions are given for indicative purposes. All data have been taken into consideration to compute the regression lines.

Remarks:

- *It is worth noting that the slopes of the regression lines of the 98 percentile are higher than the slopes of the median for all the pollutants (indicating isolated pollution events of higher magnitude in winter).*

- Although one must also take into consideration the scattering of the points illustrated by the coefficients of correlation, such graphics possibly show peculiar behavior of stations. For example, in the plot of the seasonal median and 98 percentile for Acid (page F.35) several stations present summer values higher than winter values (plot below the diagonal). This fact is worth noting when considering the behavior of the other stations.

Annex 6 gives the status of the isolated extremum of the monthly median values. To find out a relative dispersion of the monthly median values around a central tendency, Z is defined as the normalized monthly median :

$$Z = \frac{| X - \text{MEAN} |}{\text{STD}}$$

where X is the monthly median, the MEAN statistics is the mean of the monthly median distribution excluding the minimum and maximum, and the STD.D statistics is the standard deviation of this distribution. Each normalized median value has been ranked from -5 to 5 according to the following intervals:

1	if Z > 2.33 and Z < 2.88	standard deviation
2	if Z > 2.88 and Z < 3.09	standard deviation
3	if Z > 3.09 and Z < 3.71	standard deviation
4	if Z > 3.71 and Z < 3.99	standard deviation
5	if Z > 3.99	

The minus sign is given when the calculated monthly value is lower than the MEAN, the sign + when the value is higher. The variation range of the scale is thus extending from - 5 (minimum value at more than 3.99 standard deviation from the MEAN) to + 5 (maximum value at more than 3.99 standard deviation from the MEAN).

Tables of Annex 6 point out monthly values at least at |2.33| standard deviation from the MEAN tendency. The boxes left empty represent thus the monthly medians with values lower than |2.33|.

Fig. II.4.17 (page F.36) illustrates the Annex 6 and presents the average value for each month.

Remarks:

- For all pollutants there are more exceptional higher than lower months; this is confirmed by the distribution of the skewness described in Chapter II.3.
- For the four pollutants covered, exceptional high pollution events have occurred in February 1985.

F I G U R E SUnselected seriesPage

Correlation diagrams between I.3.1 to I.3.7 ; 40 - 46
measurement techniques

Selected seriesNon-parametric statistics

Global representation of the II.2.1 to II.2.4 ; 47 - 50
percentiles 25,50,75,98
based on results of Annex 3

Scatter chart of the II.2.5 to II.2.8 ; 51 - 54
percentiles 50 and 98
based on results of Annex 3

Scatter chart of the median II.2.9 to II.2.12 ; 55 - 58
and interquartile range
based on results of Annex 3

Global median value by II.2.13 ; 59
town classes

Annual parameters

Histograms of descriptive II.3.1 to II.3.7 ; 60 - 66
parameters
based on results of Annex 4

Characteristics of the time seriesPage

Scatter chart of the percen- tiles 50 and 98 for summer and winter based on results of Annex 5	II.4.1 to II.4.8	; 67 - 70
Correlation diagrams - between the winter and summer median - between the winter and summer percentile 98 based on result of Annex 5	II.4.9 to II.4.16	; 71 - 74
Isolated extremum of the monthly median based on the result of Annex 6	II.4.17	; 75

COMMENTS ON FIGURES I.3.1 TO I.3.7

Figures I.3.1 to I.3.7 present the coefficient of correlation and the orthogonal regression lines for seven stations of Denmark using two different measurement techniques for SO₂.

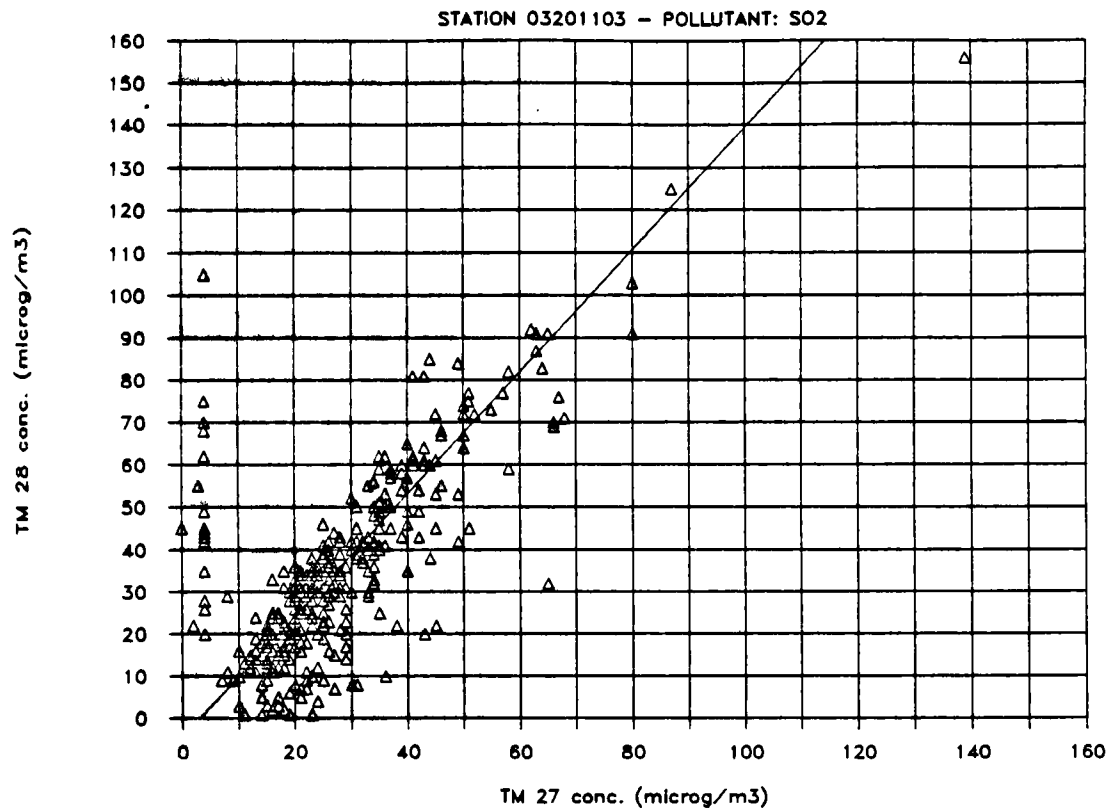
The stations and techniques are the following:

Table I.5

TM	Measurement technique	Station identifier PPCVVSSS	Town name
27	colorimetric	03201103	Kobenhaven
28	coulometric		
27	colorimetric	03401815	Aalborg
29	UV fluorescence	03402915	Odense
		03501565	Esbjerg
		03502515	Fredericia
		03503351	Naestvest
		03504635	Randers

For more details, the reader should refer to the Descriptive Tables of the Commission.

CORRELATION BETWEEN TM 27 AND TM 28

Fig. I.3.1

orthogonal regression line:

n: 335

slope: 1.44

int.: - 4.51 $\mu\text{g}/\text{m}^3$

corr. coeff.: 0.733

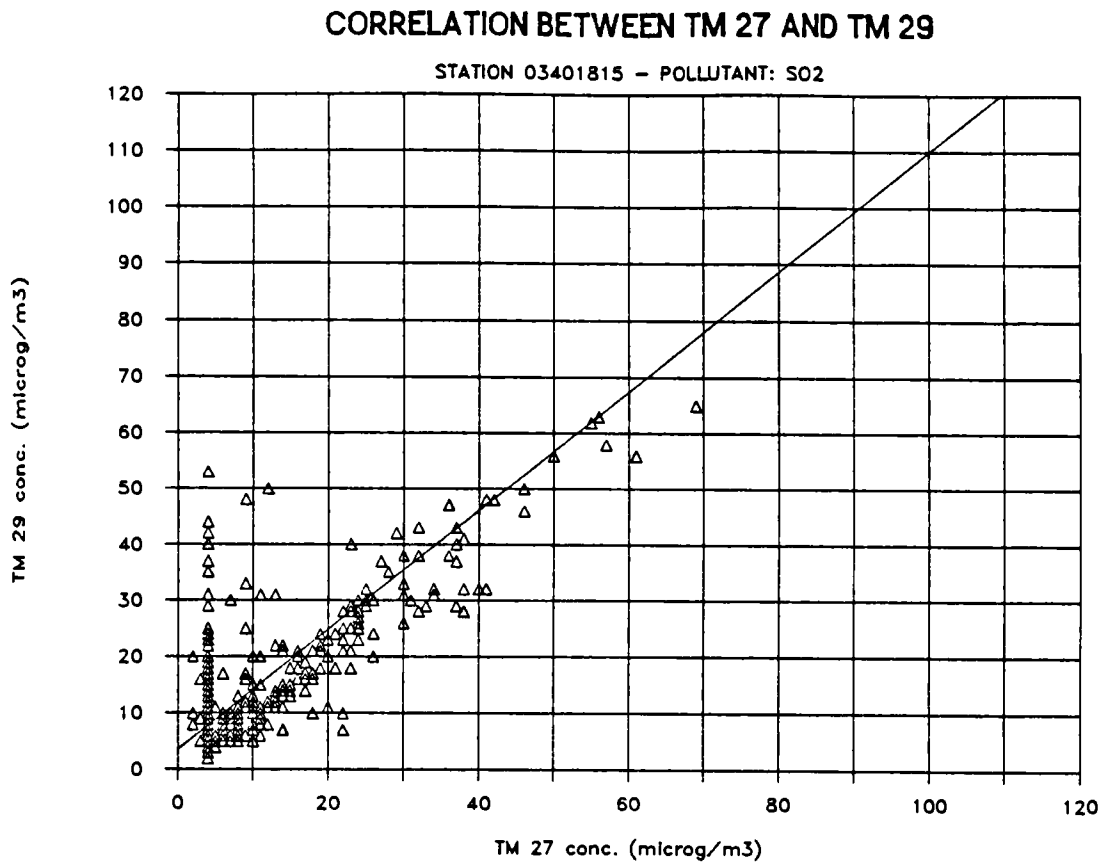


Fig. I.3.2

orthogonal regression line:

n: 262
slope: 1.06
int.: 3.61 $\mu\text{g}/\text{m}^3$
corr. coeff.: 0.751

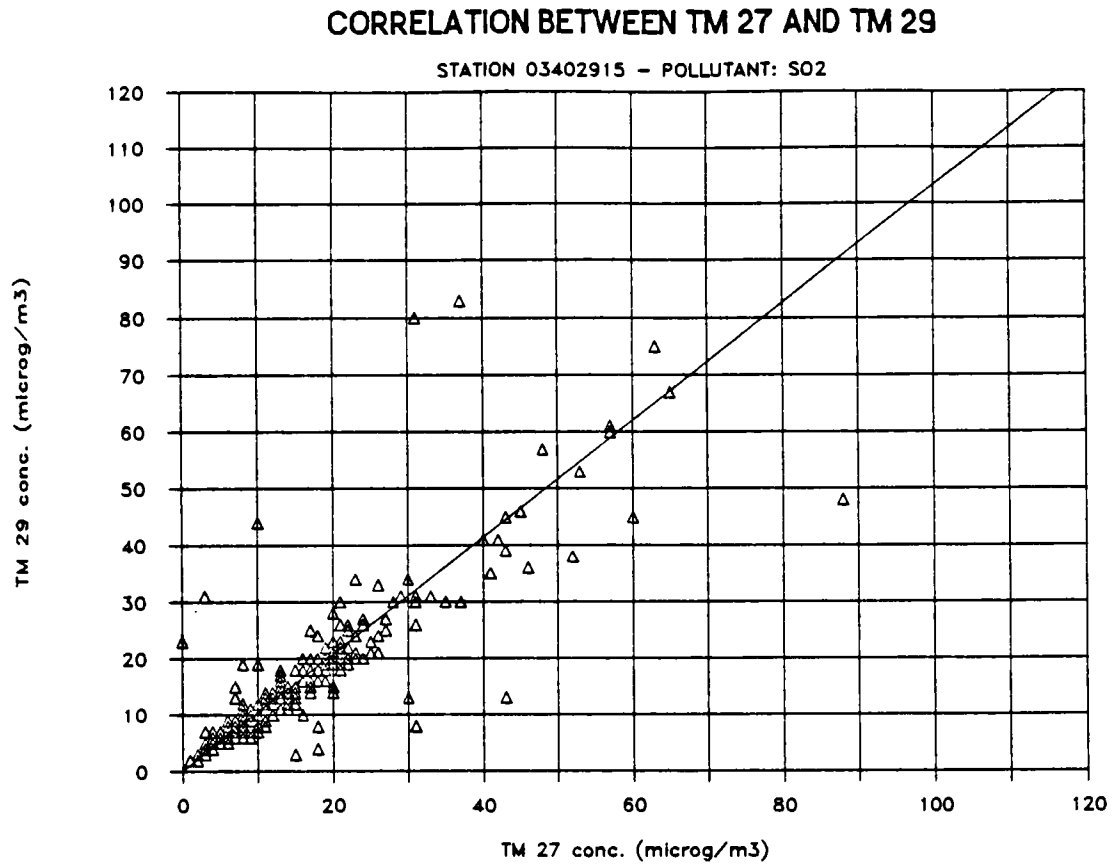


Fig. I.3.3

orthogonal regression line:

n: 285
slope: 1.03
int.: 0.13 $\mu\text{g}/\text{m}^3$
corr. coeff.: 0.857

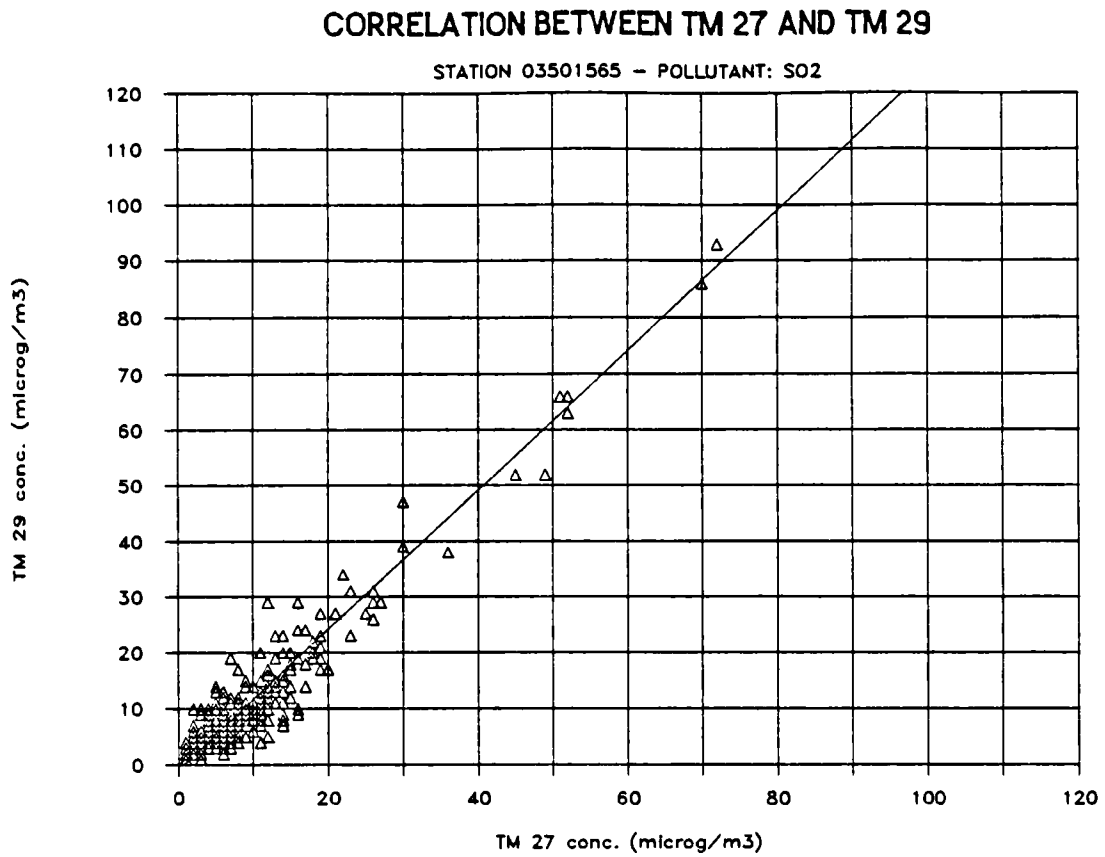


Fig. I.3.4

orthogonal regression line:

n: 309

slope: 1.25

int.: - 0.92 $\mu\text{g}/\text{m}^3$

corr. coeff.: 0.952

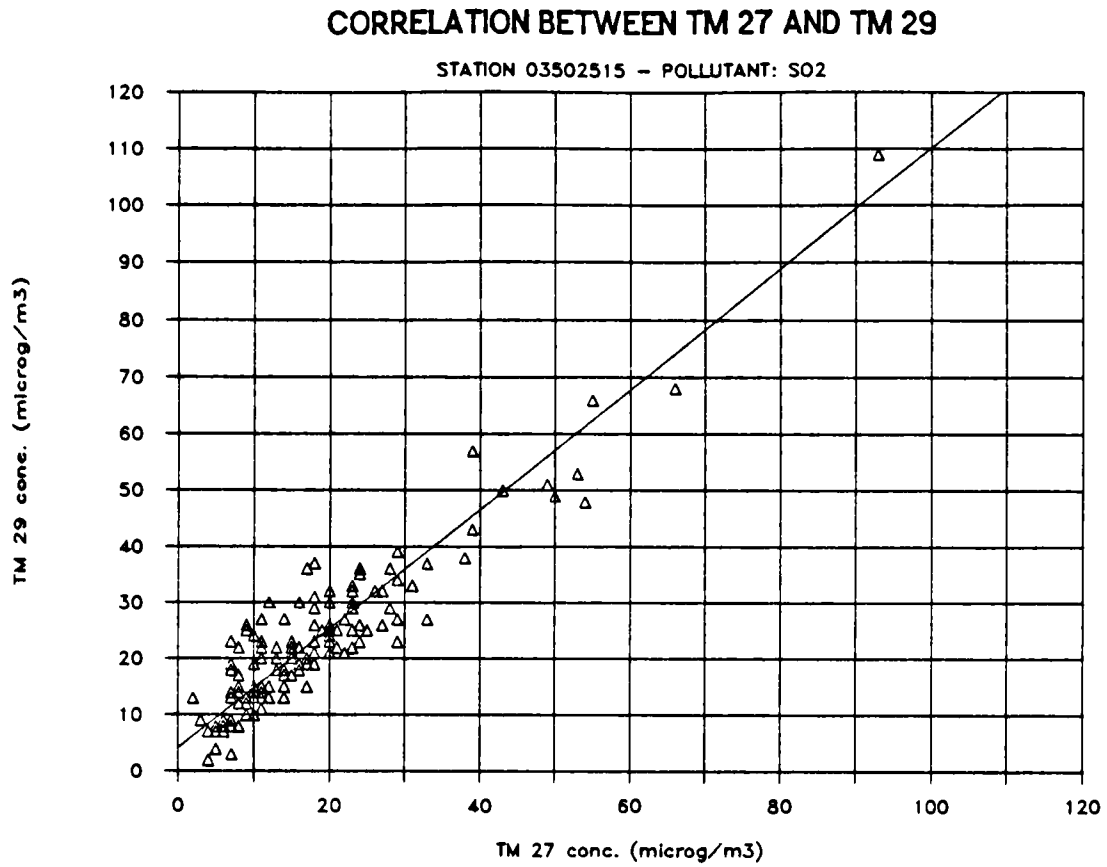


Fig. I.3.5

orthogonal regression line:

n: 134

slope: 1.06

int.: 4.17 $\mu\text{g}/\text{m}^3$

corr. coeff.: 0.923

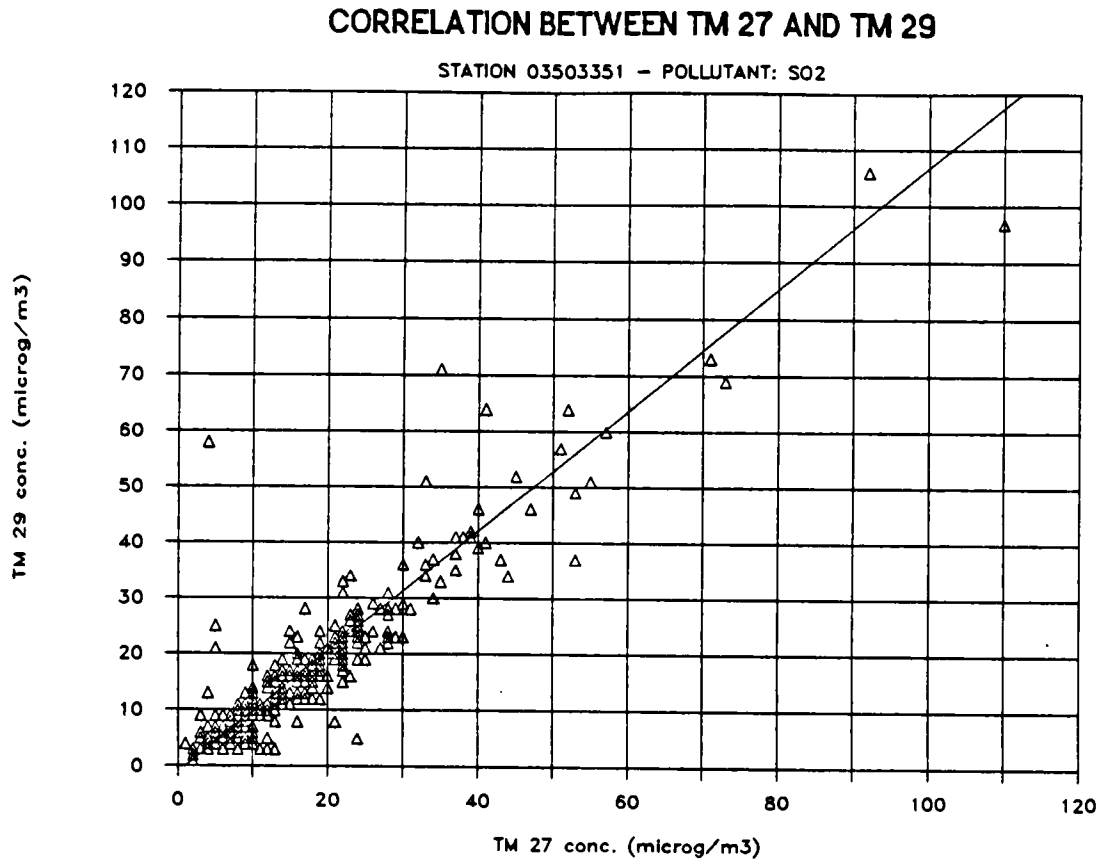


Fig. I.3.6

orthogonal regression line:

n: 293
slope: 1.08
int.: - 1.17 $\mu\text{g}/\text{m}^3$
corr. coeff.: 0.935

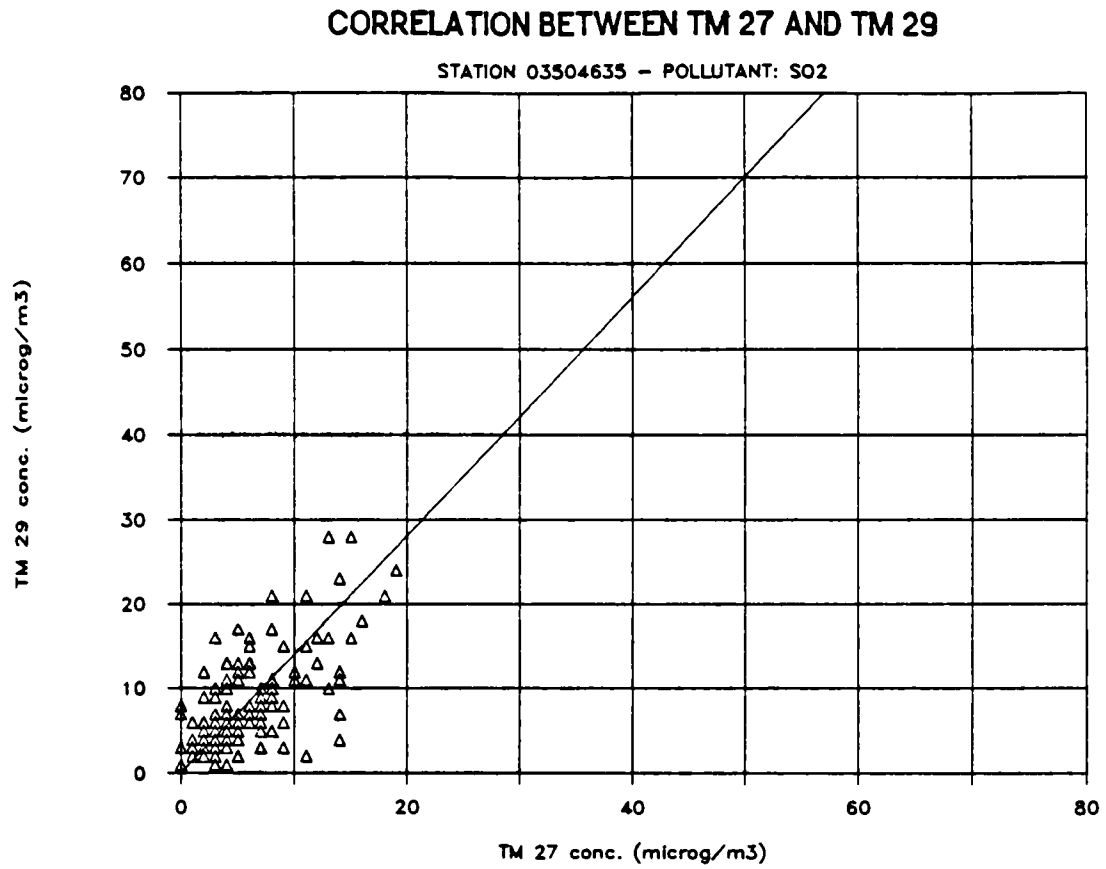


Fig. I.3.7

orthogonal regression line:

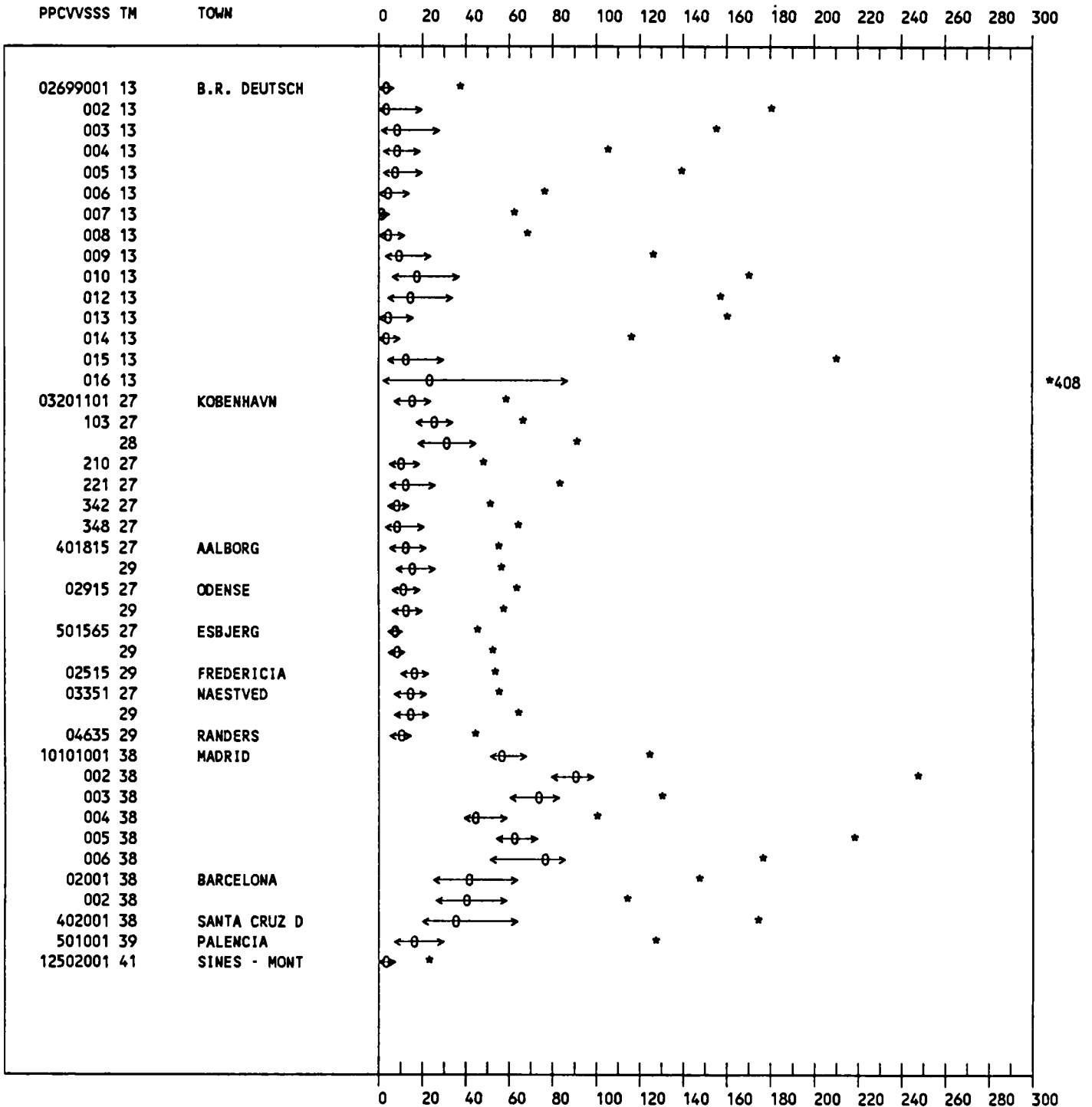
n: 146
slope: 1.40
int.: 0.07 $\mu\text{g}/\text{m}^3$
corr. coeff.: 0.665

Global representation of the percentiles 25 50 75 98 %

Pollutant : SO₂

Year : October 85 - September 86

Units : microg /m³



*408

Caption : < 25 th percentile.
 0 50 th percentile.
 > 75 th percentile.
 * 98 th percentile.

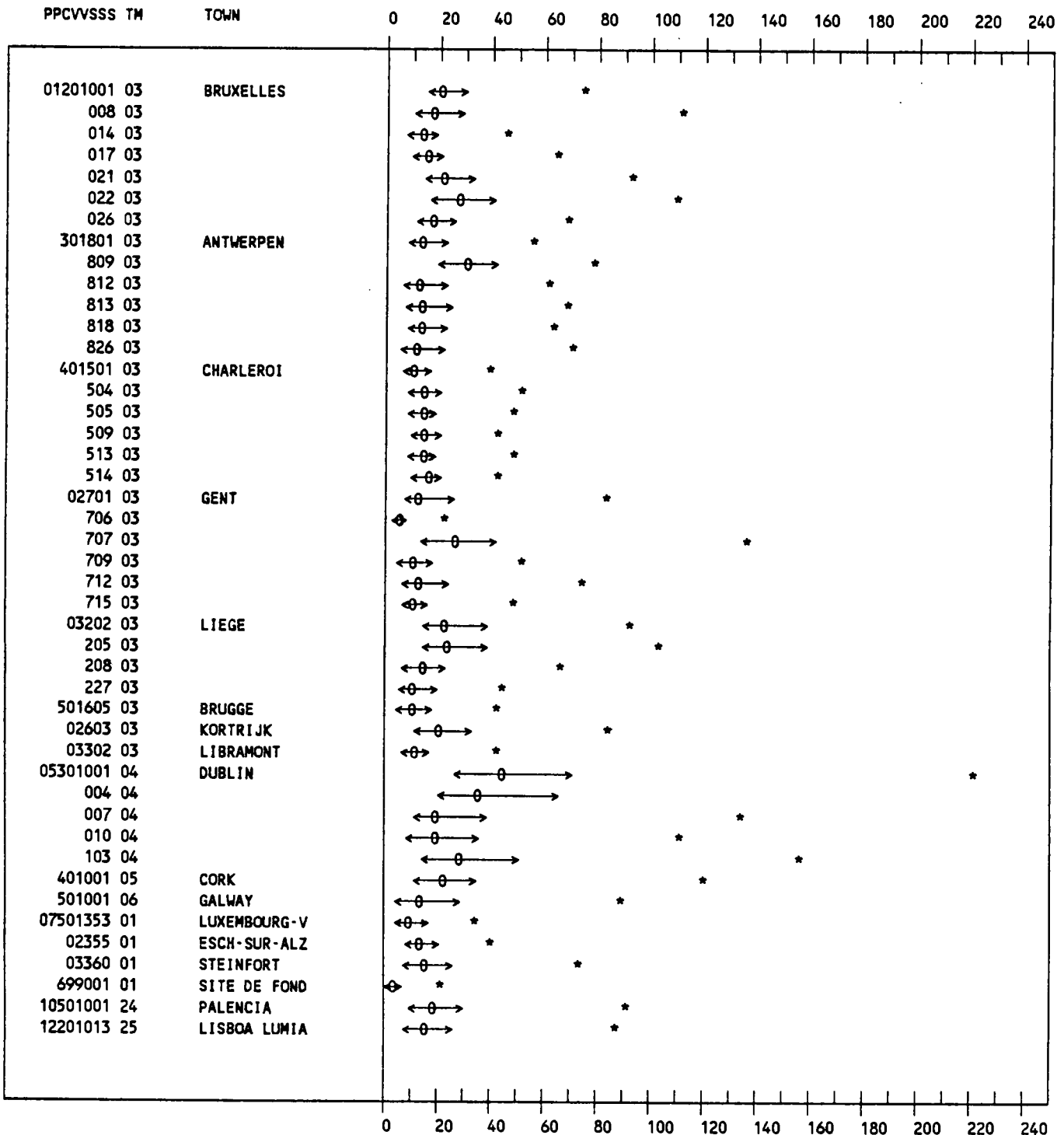
Fig. II.2.1

Global representation of the percentiles 25 50 75 98 %

Pollutant : Smoke

Year : October 85 - September 86

Units : microg /m³



*276

Caption : < 25 th percentile.
 0 50 th percentile.
 > 75 th percentile.
 * 98 th percentile.

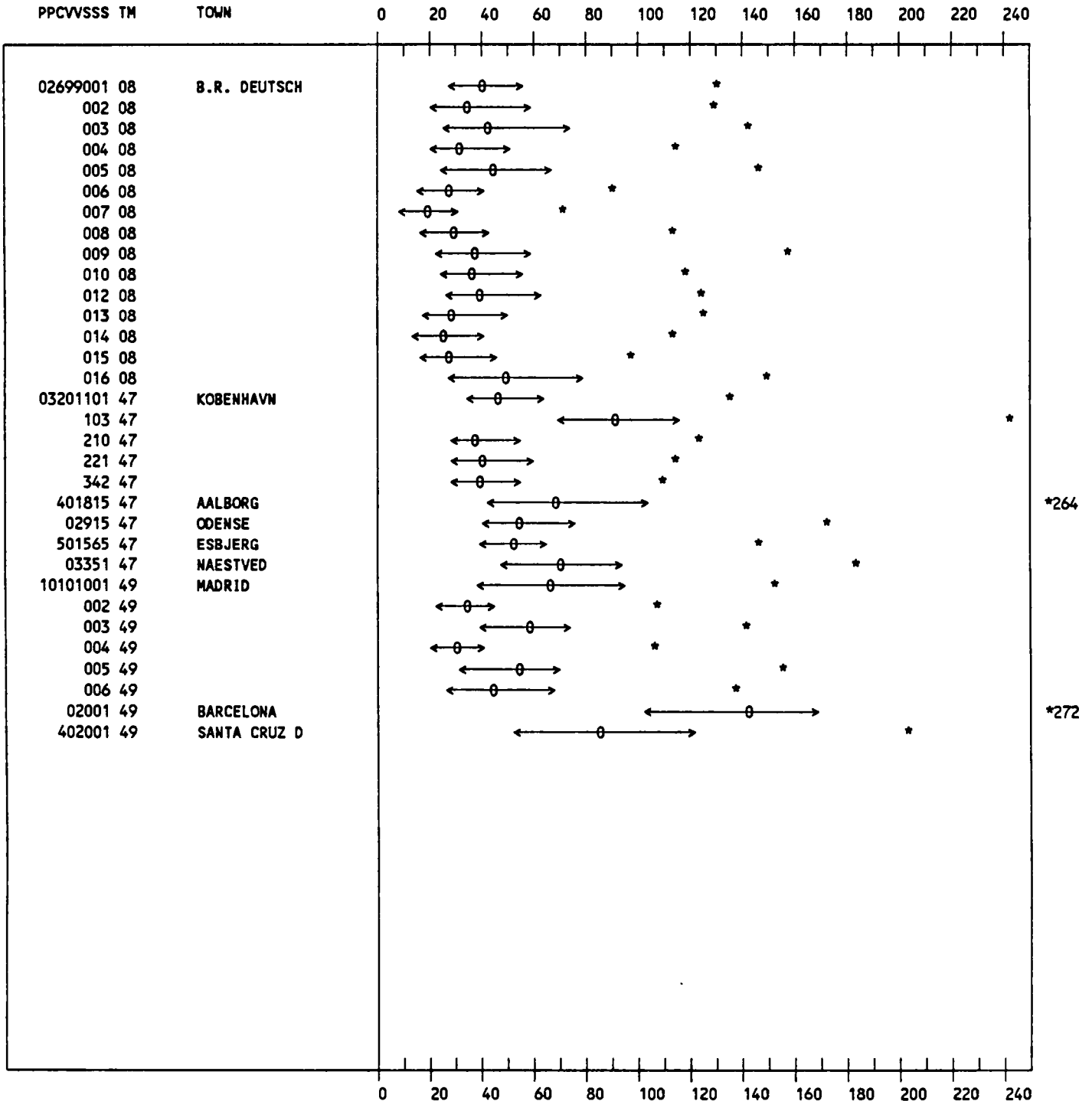
Fig. II.2.2

Global representation of the percentiles 25 50 75 98 %

Pollutant : SPM

Year : October 85 - September 86

Units : microg /m³



Caption : < 25 th percentile.
 0 50 th percentile.
 > 75 th percentile.
 * 98 th percentile.

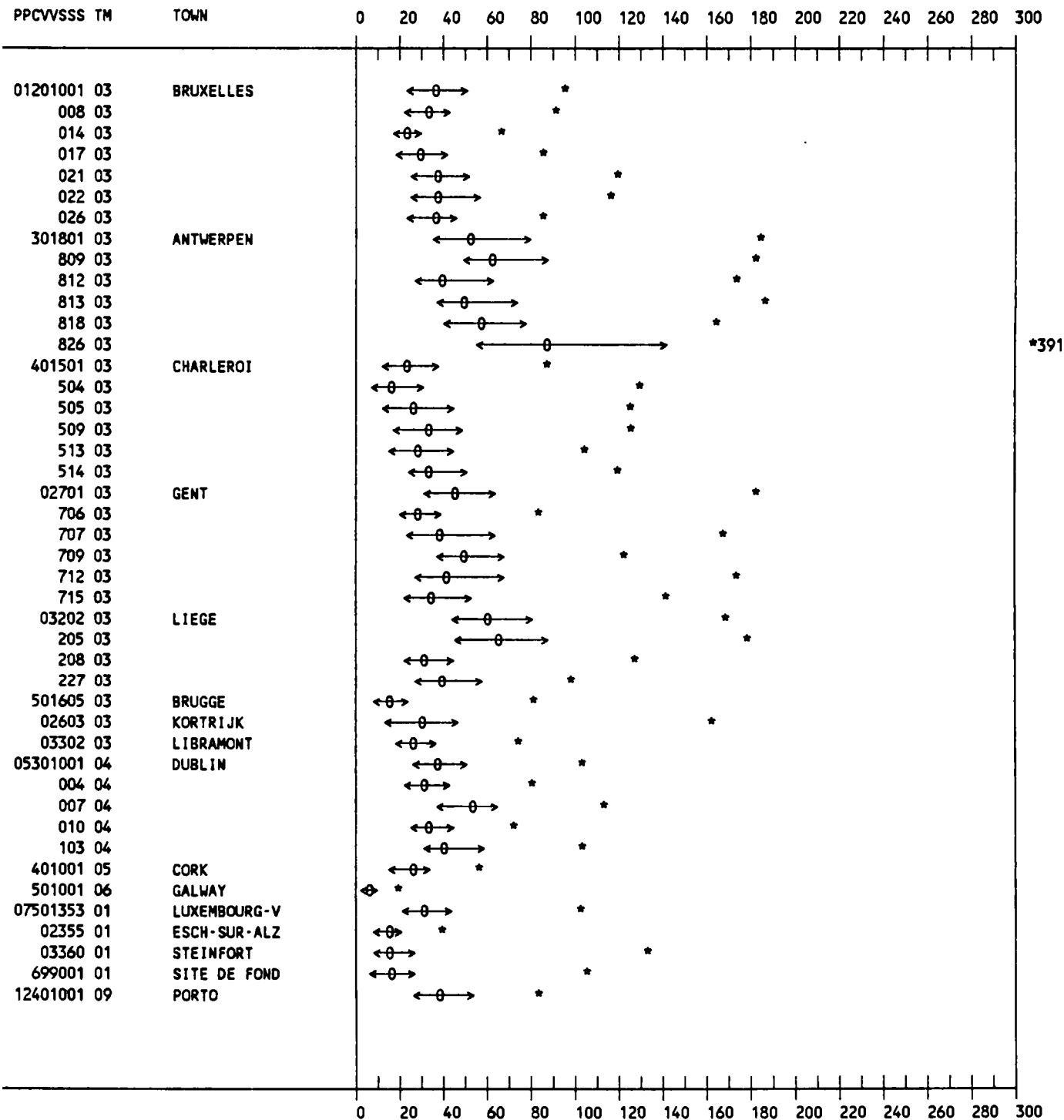
Fig. II.2.3

Global representation of the percentiles 25 50 75 98 %

Pollutant : Acid

Year : October 85 - September 86

Units : microg /m³



*391

Caption : < 25 th percentile.
 0 50 th percentile.
 > 75 th percentile.
 * 98 th percentile.

Scatter chart of the percentile 50 and 98 labelled with the country code.

Pollutant : SO₂

Year : October 85 - September 86

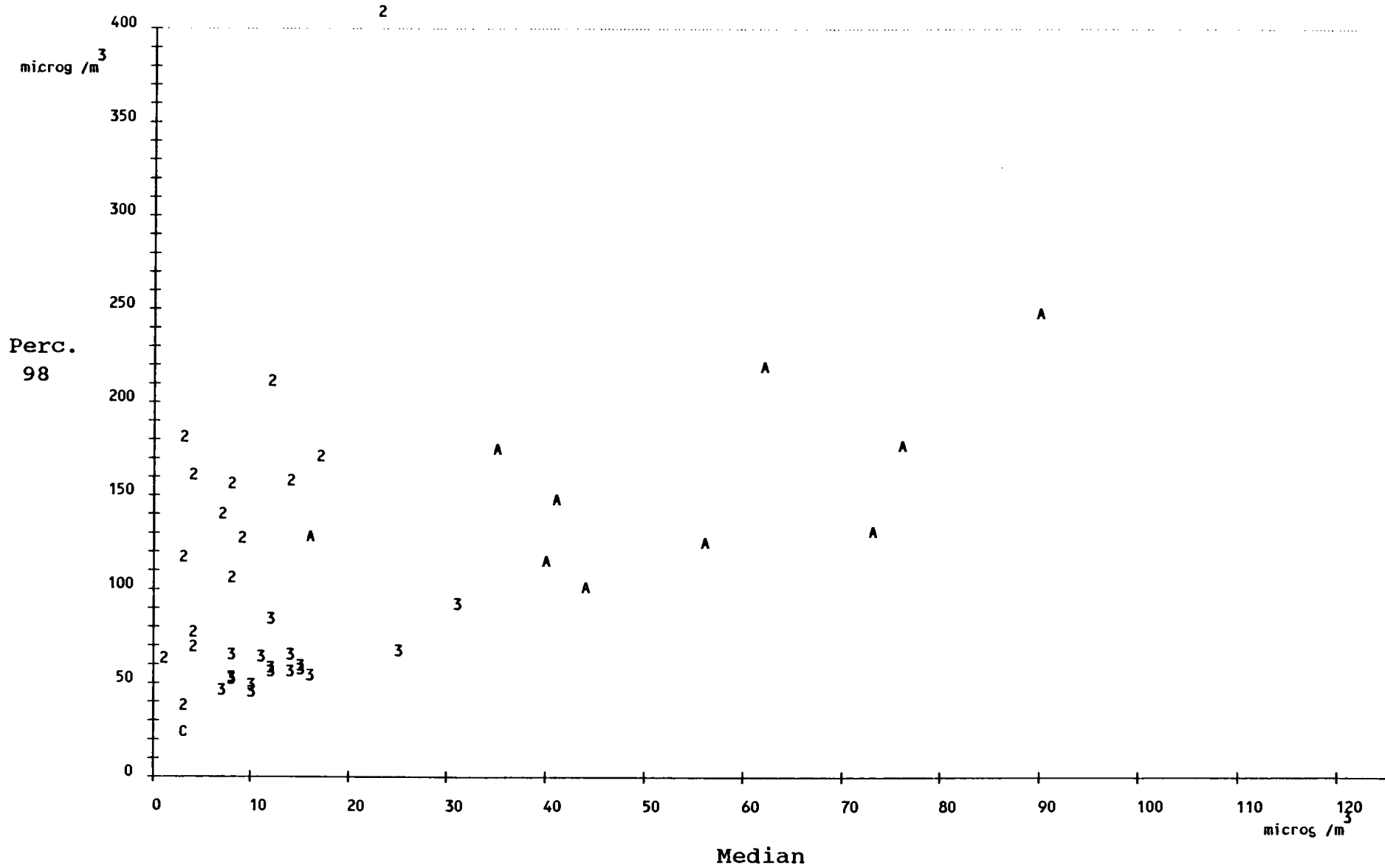
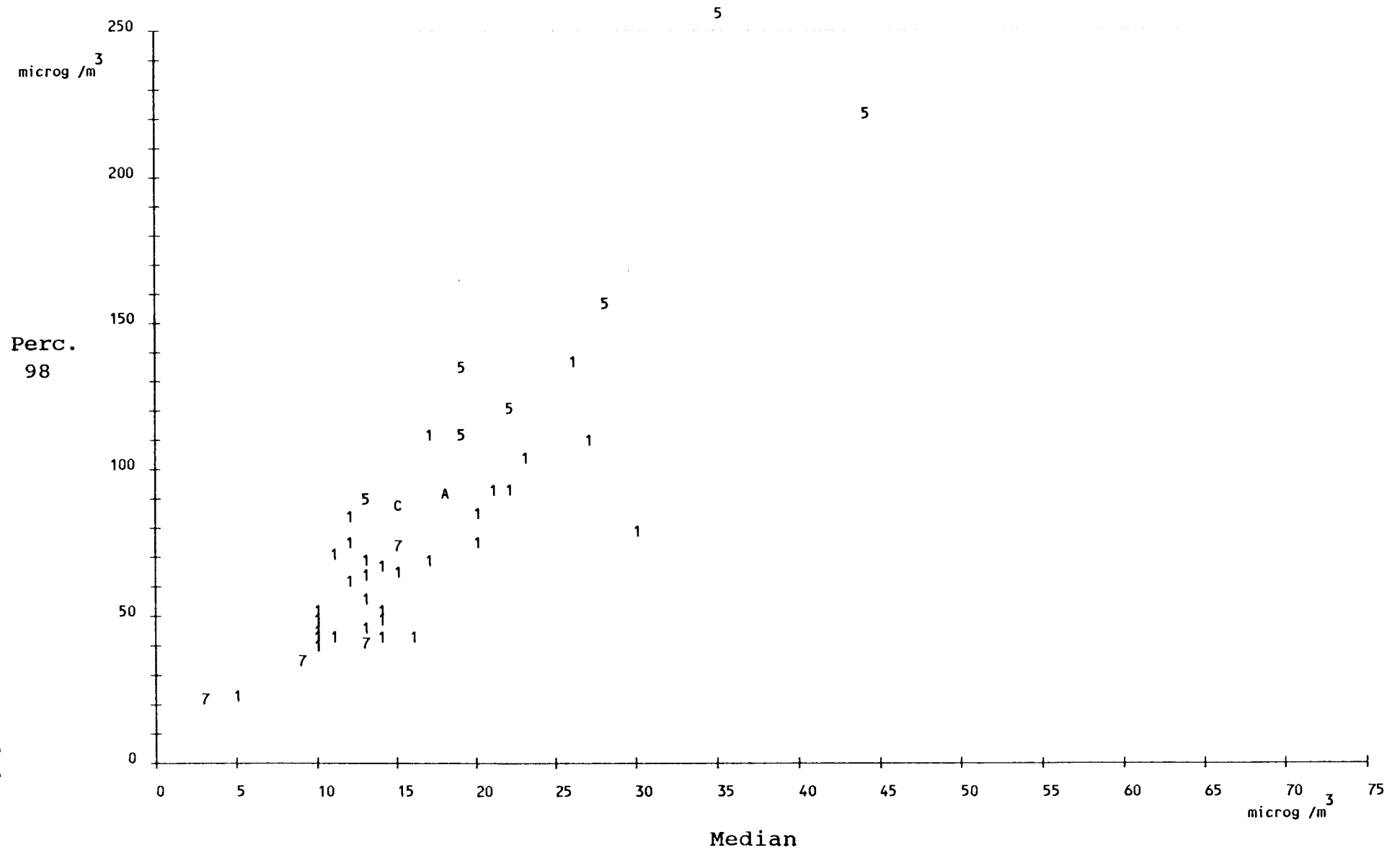


Fig. 11.2.5

Scatter chart of the percentile 50 and 98 labelled with the country code.

Pollutant : Smoke

Year : October 85 - September 86



Scatter chart of the percentile 50 and 98 labelled with the country code.

Pollutant : SPM

Year : October 85 - September 86

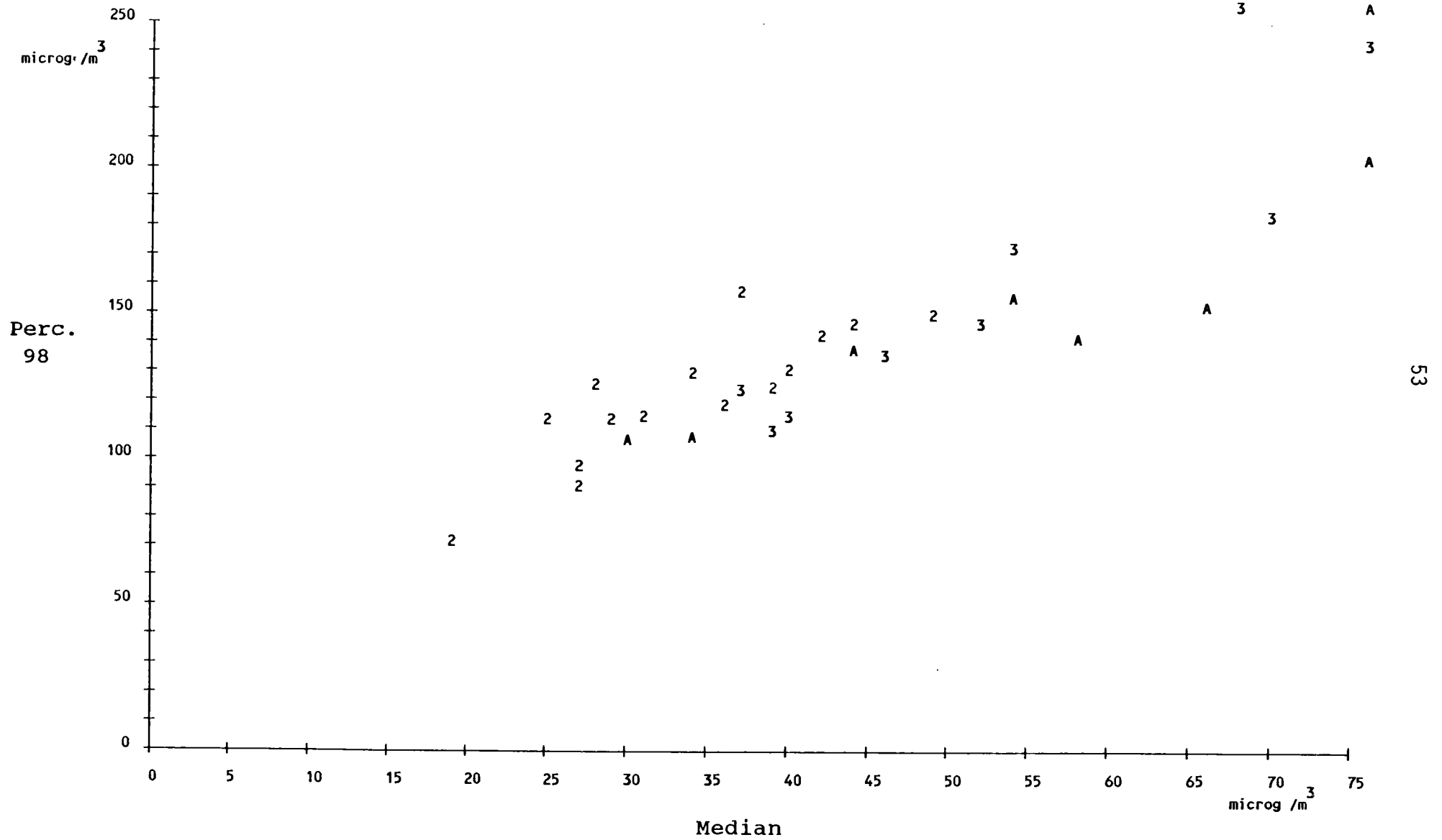
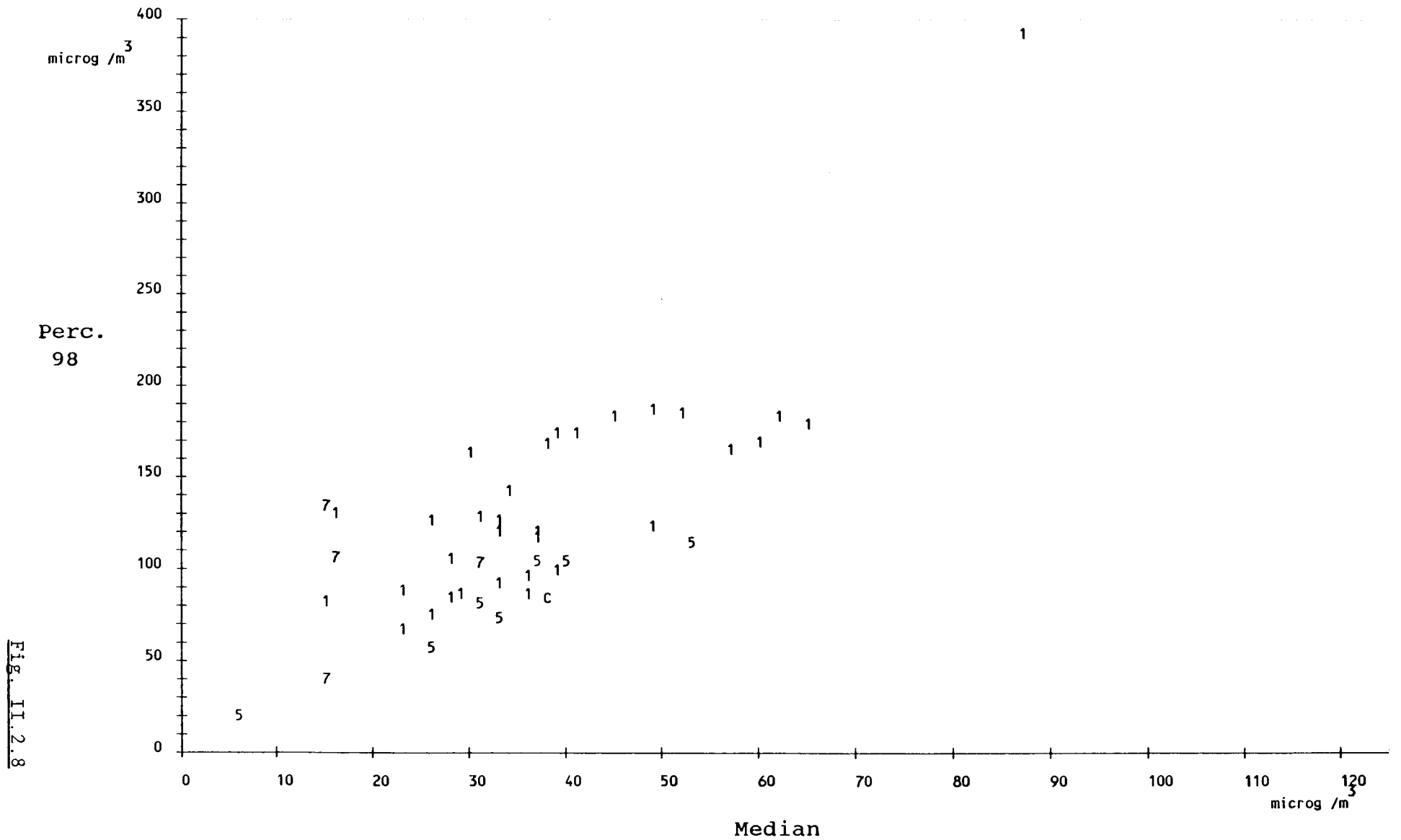


FIG. II.2.7

Scatter chart of the percentile 50 and 98 labelled with the country code.

Pollutant : Acid

Year : October 85 - September 86



Scatter chart of the median and interquartile range with the country code.

Pollutant : SO₂

Year : October 85 - September 86

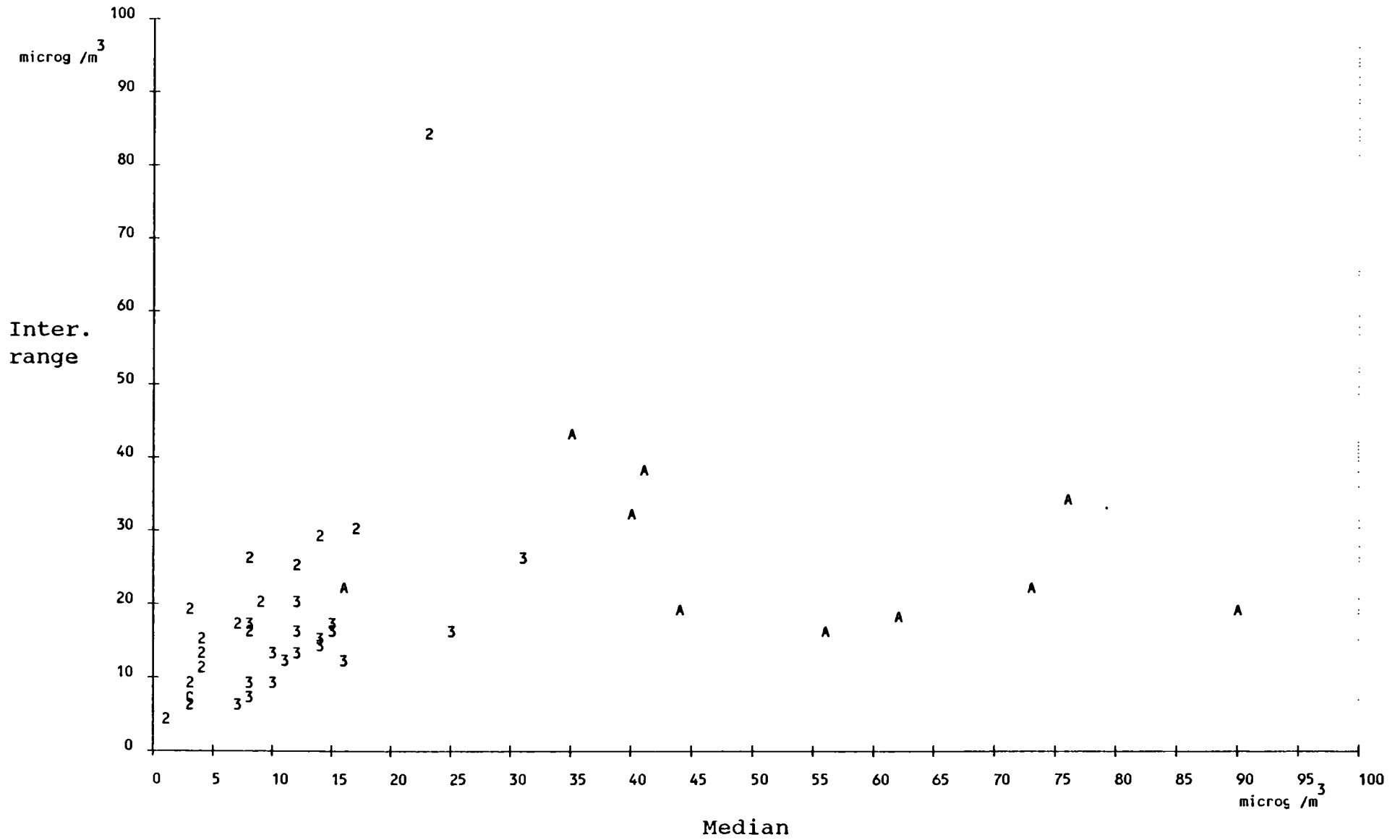


Fig. II.2.9

Scatter chart of the median and interquartile range with the country code.

Pollutant : Smoke

Year : October 85 - September 86

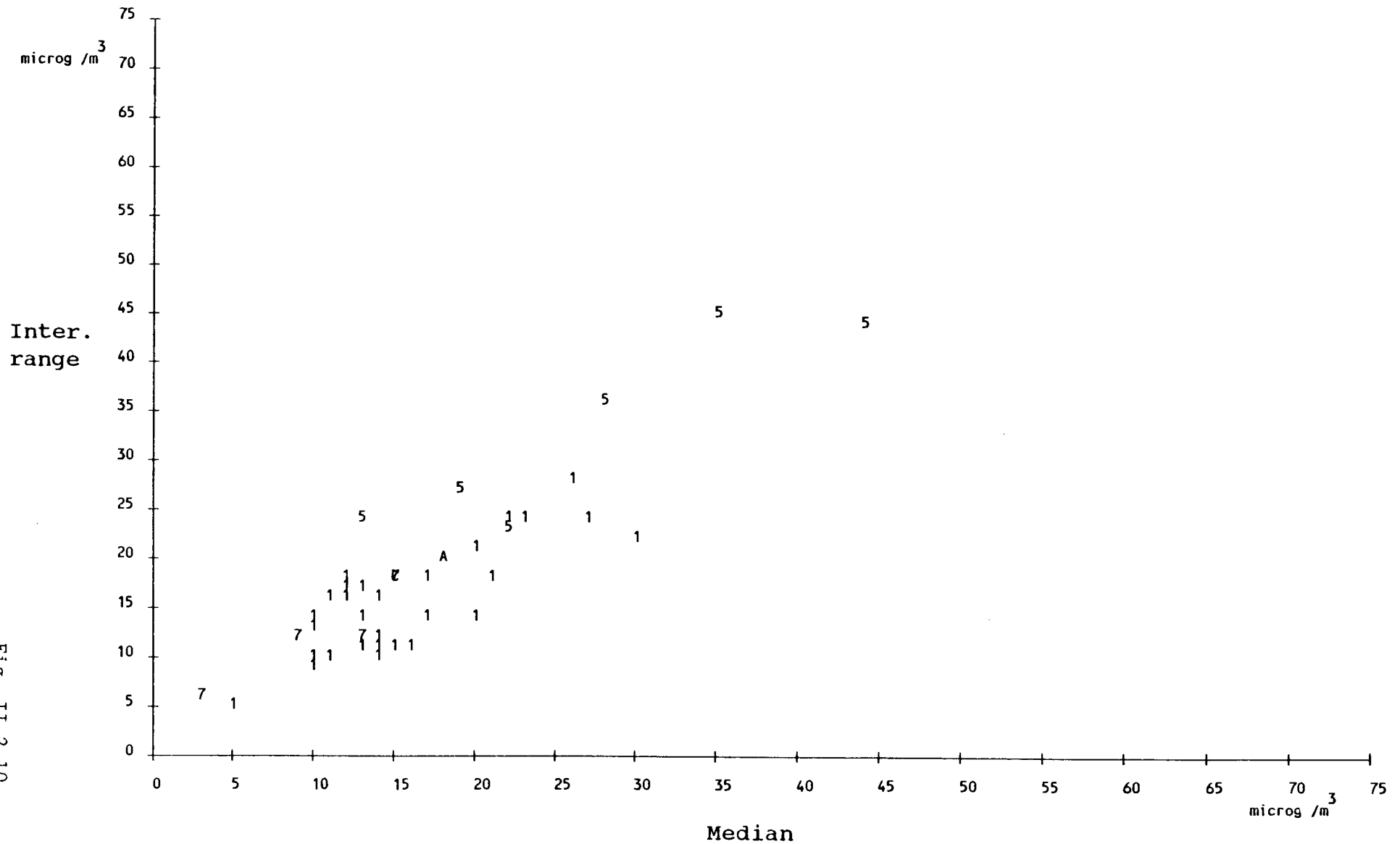


Fig. II.2.10

Scatter chart of the median and interquartile range with the country code.

Pollutant : SPM

Year : October 85 - September 86

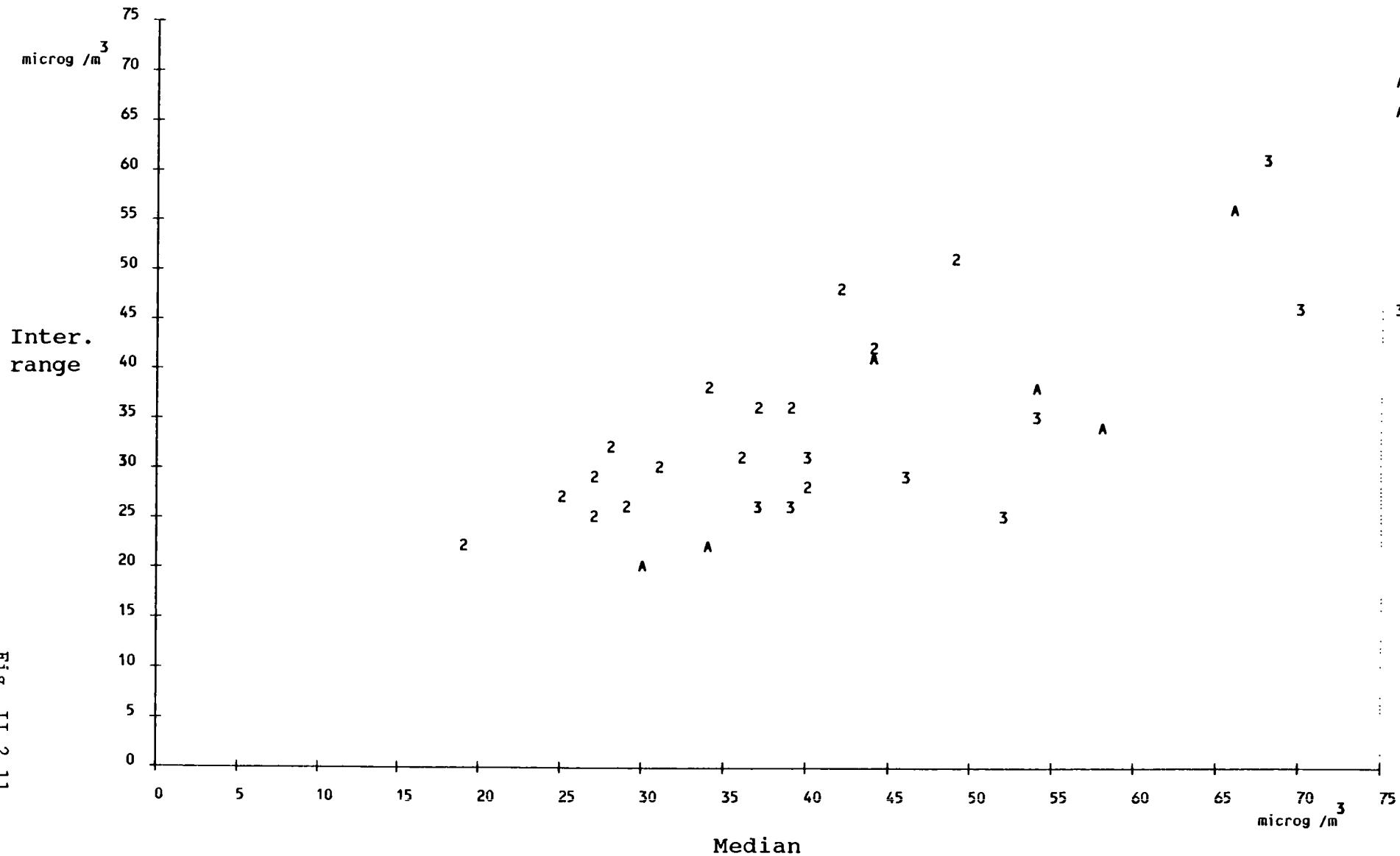


Fig. II.2.11

Scatter chart of the median and interquartile range with the country code.

Pollutant : Acid

Year : October 85 - September 86

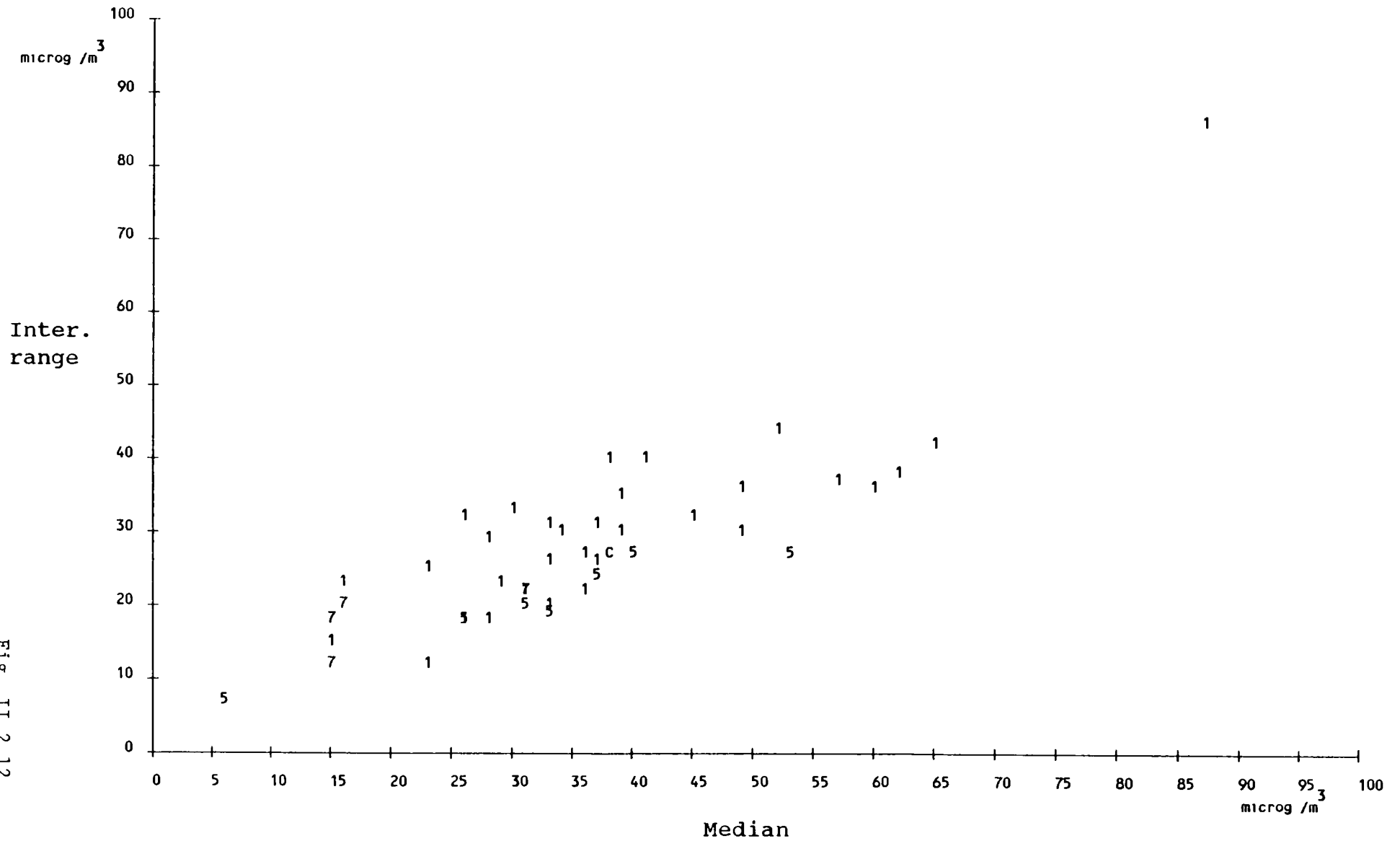


FIG. 11.2.12

GLOBAL MEDIAN VALUE BY TOWN CLASS : October 1985 - September 1986

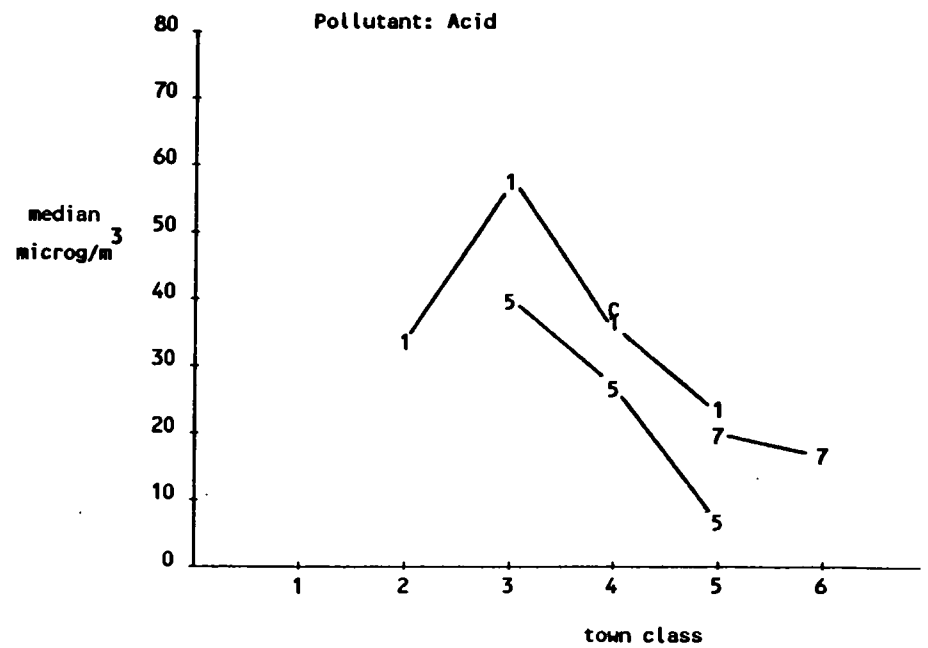
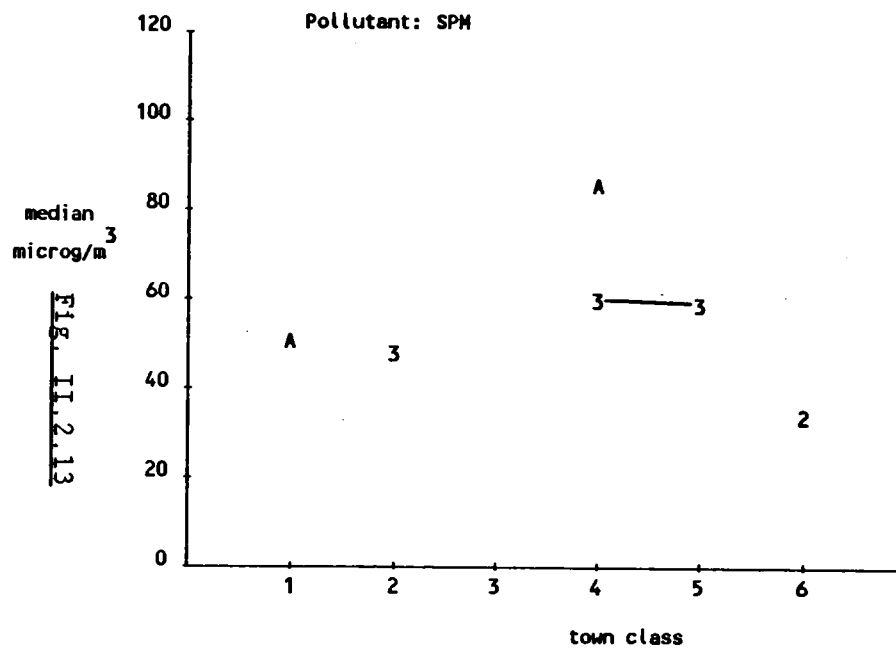
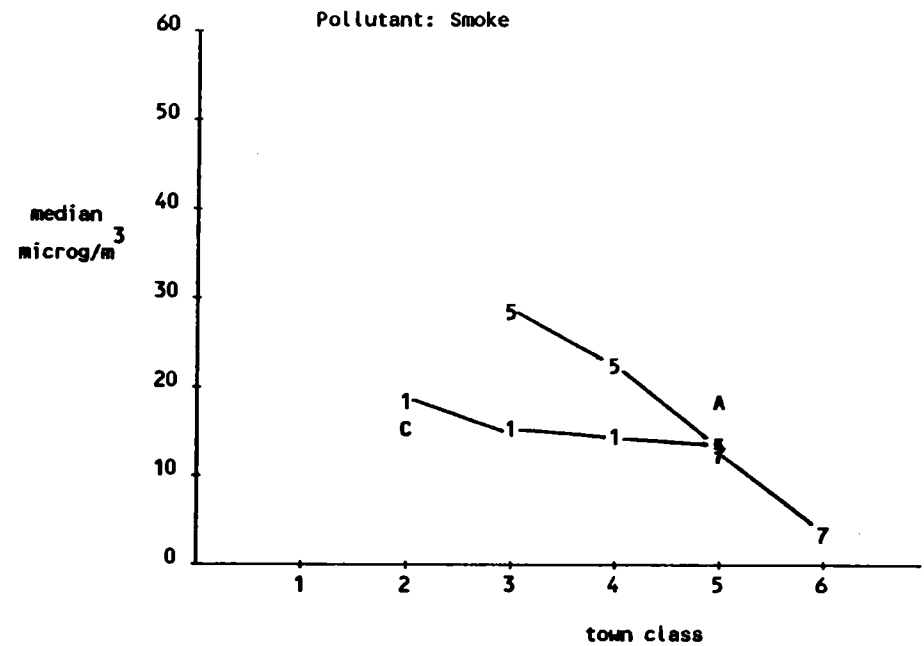
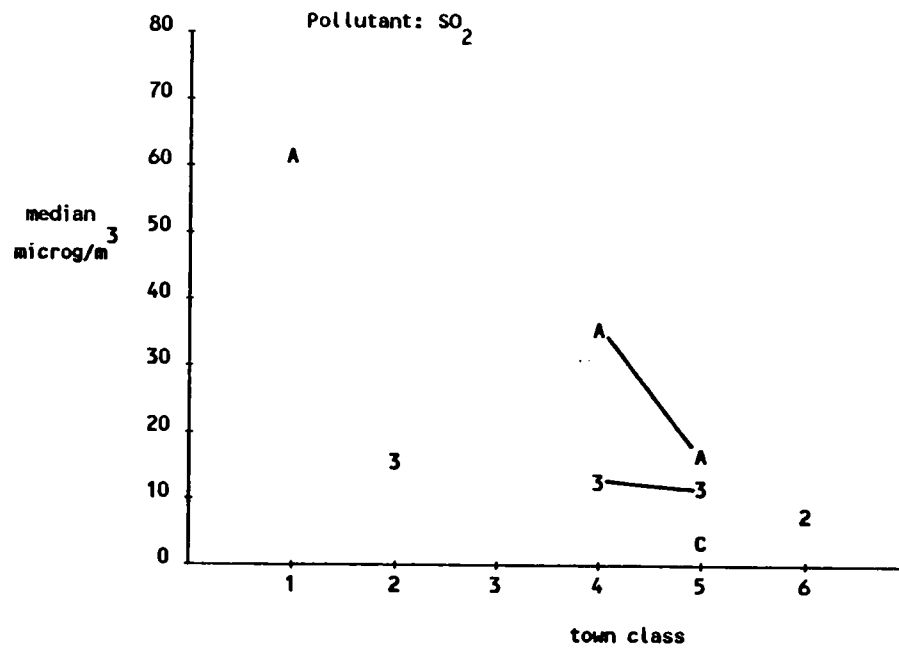


FIG. II.2.13

ANNUAL MEDIAN FOR STATIONS - October 85 - September 86

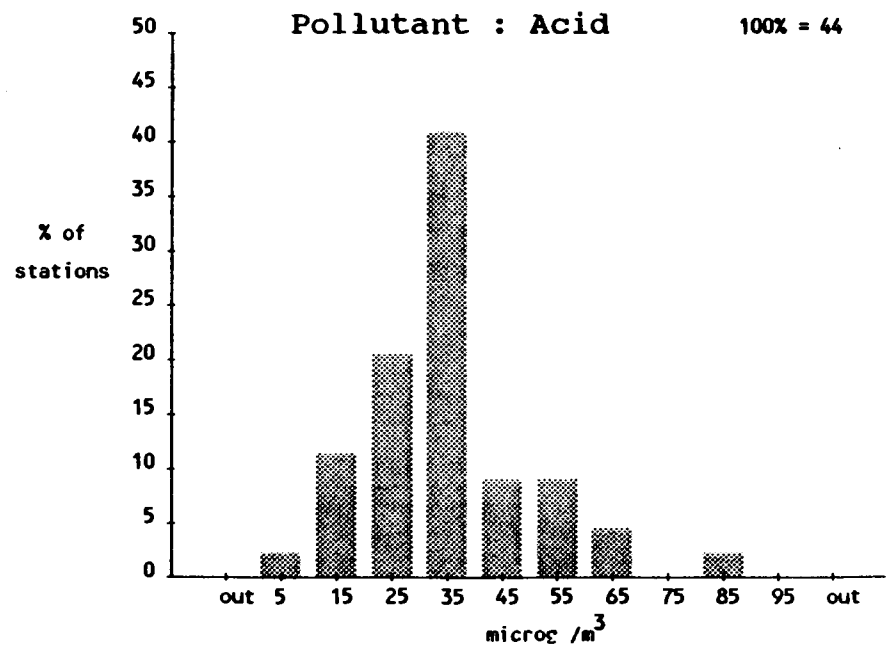
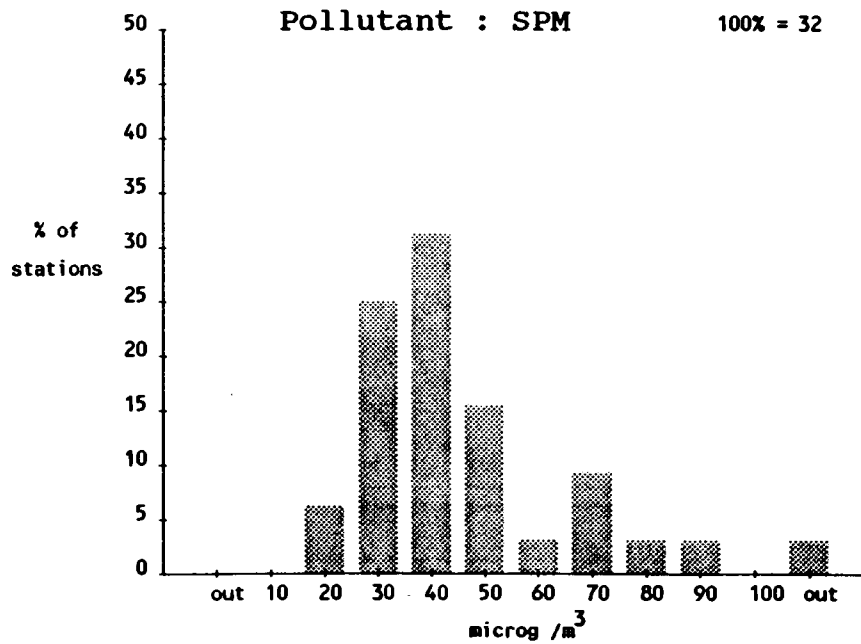
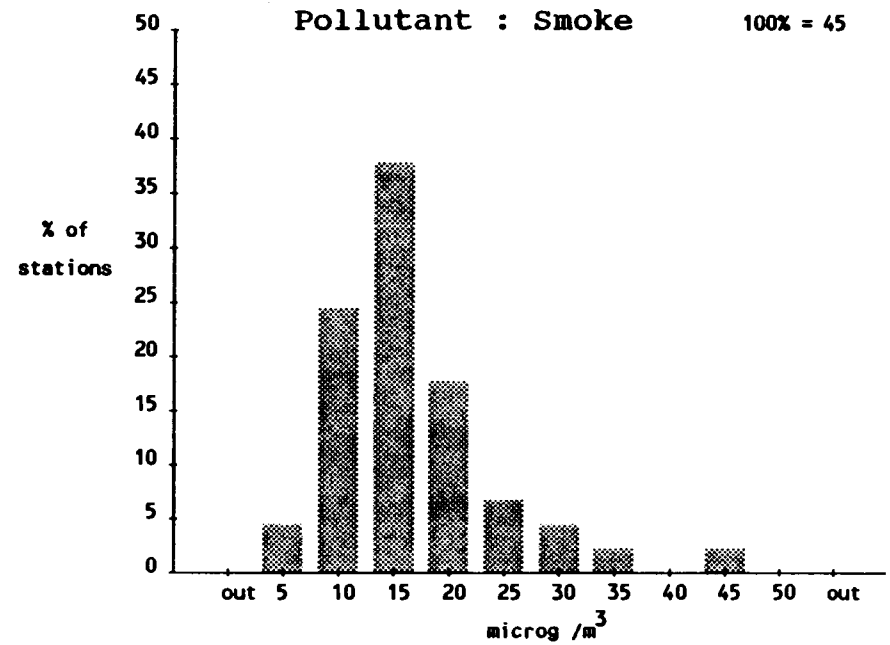
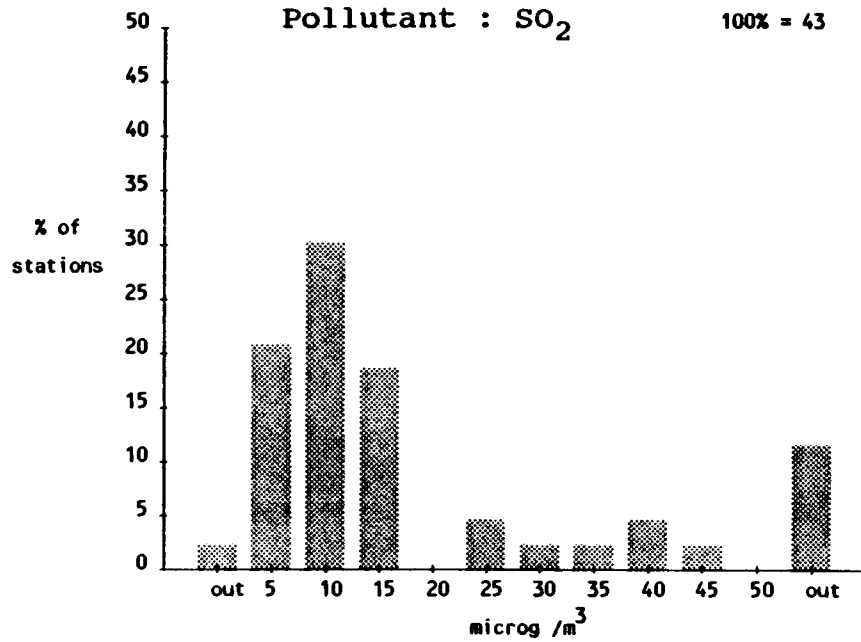


Fig. II.3.1

ANNUAL MEAN FOR STATIONS - October 85 - September 86

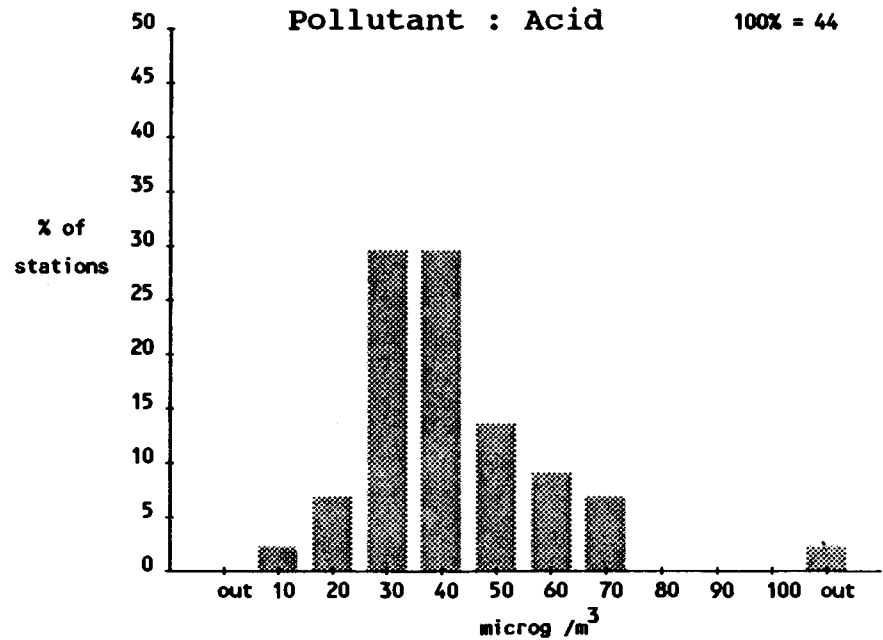
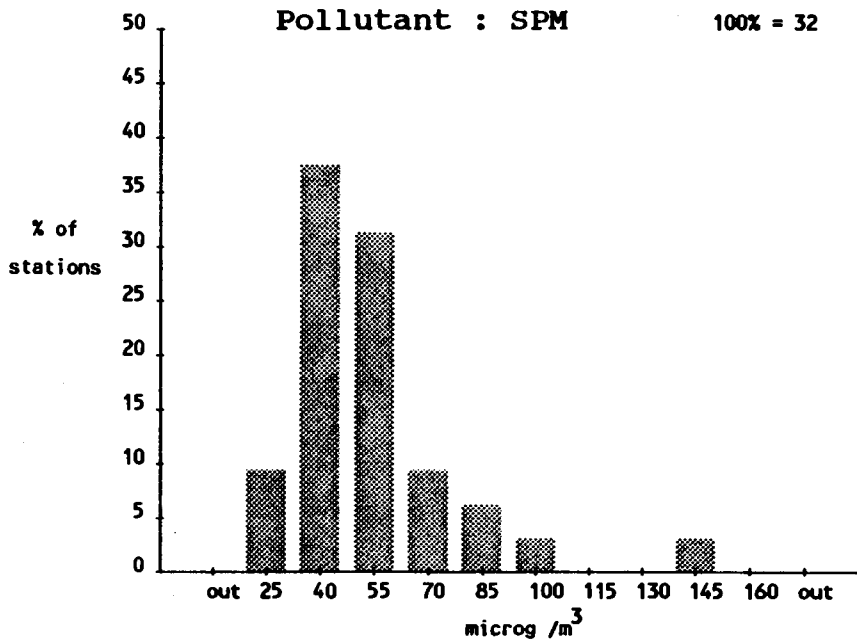
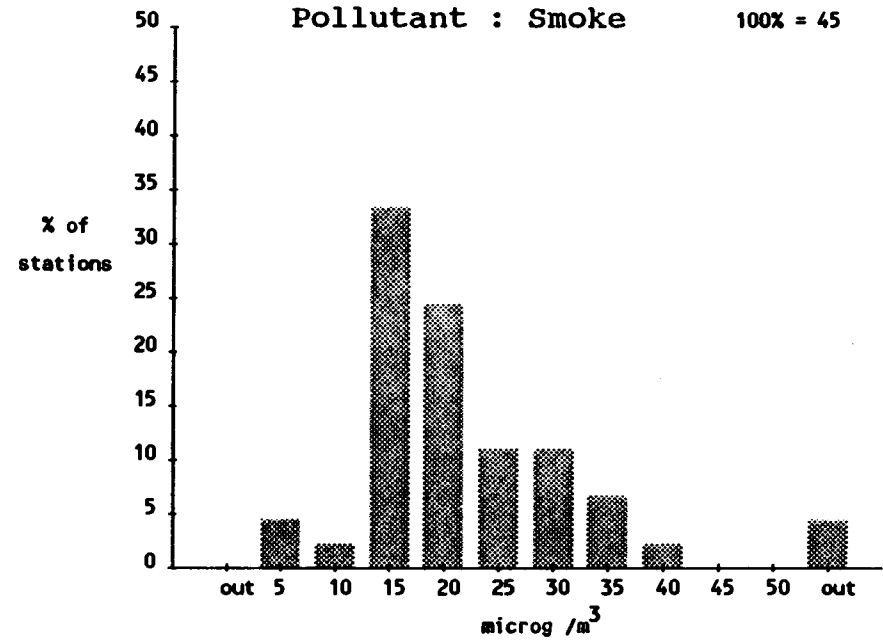
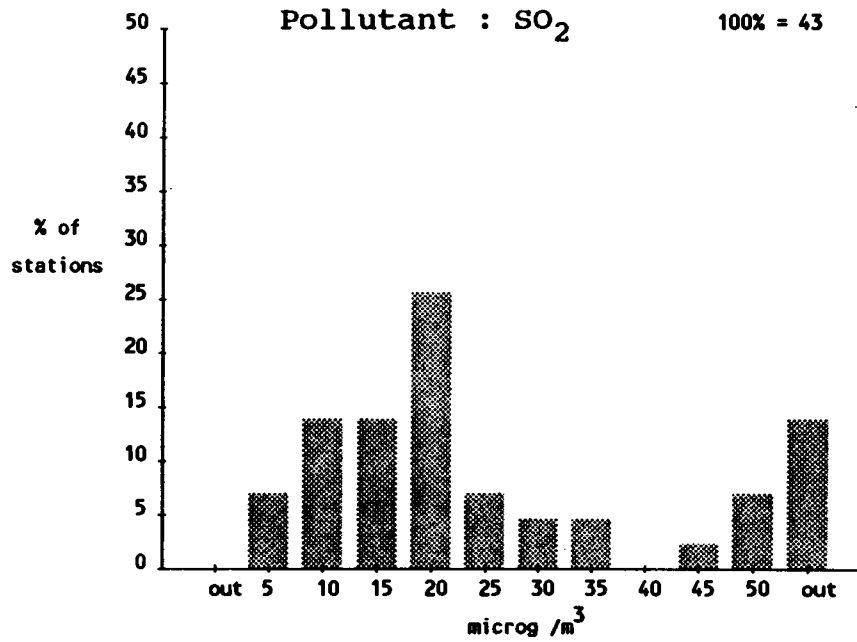


FIG. 11.3.2

ANNUAL STANDARD DEVIATION FOR STATIONS - October 85 - September 86

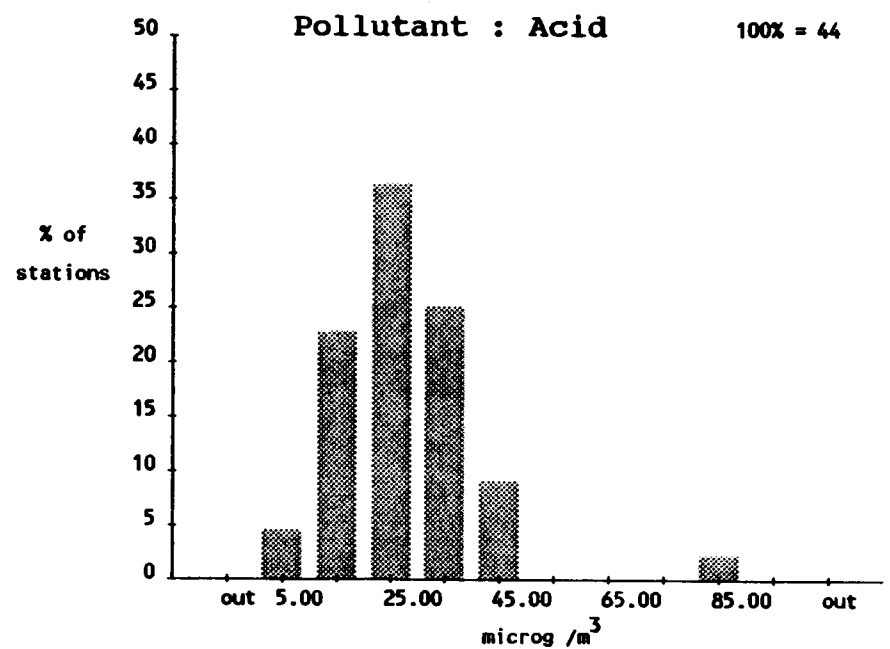
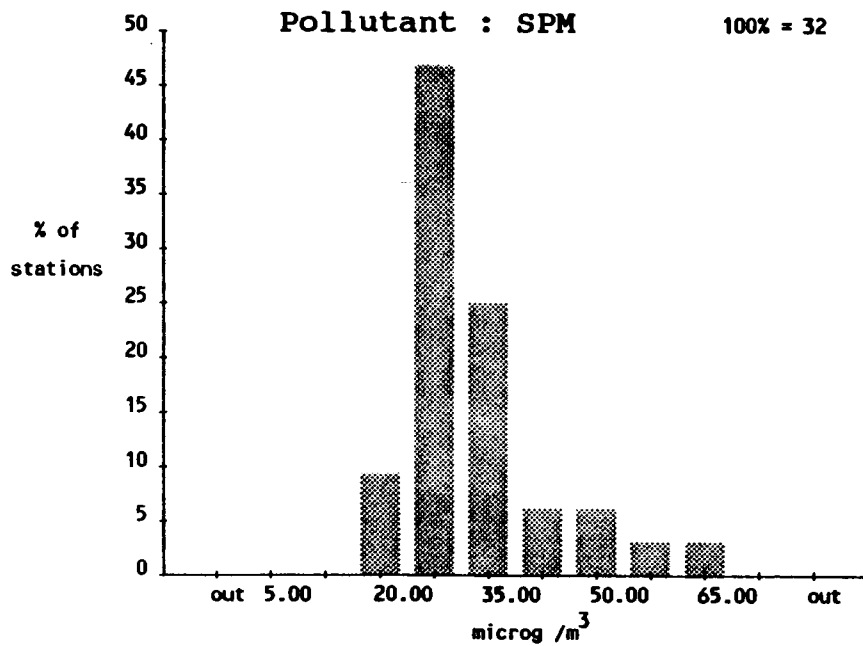
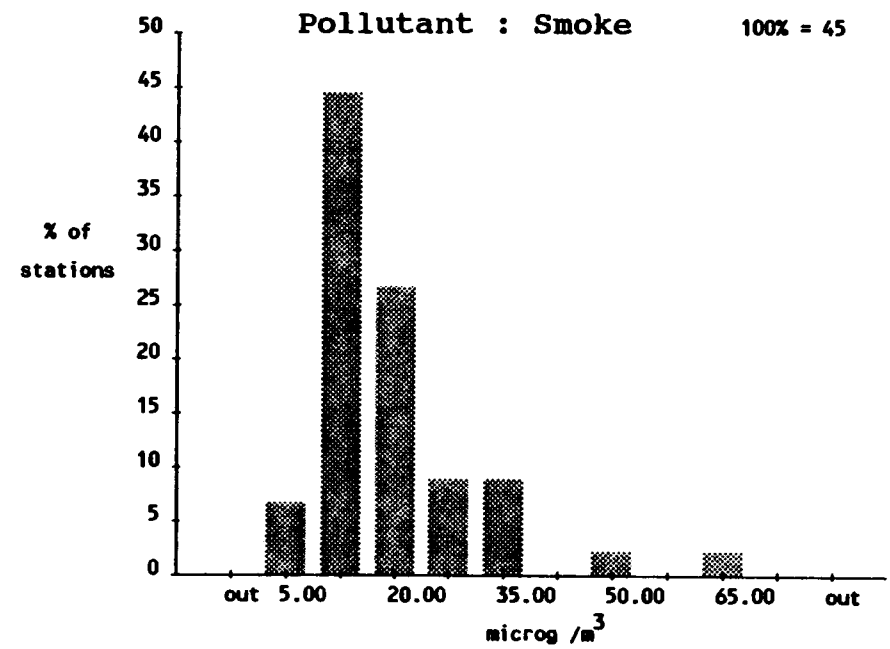
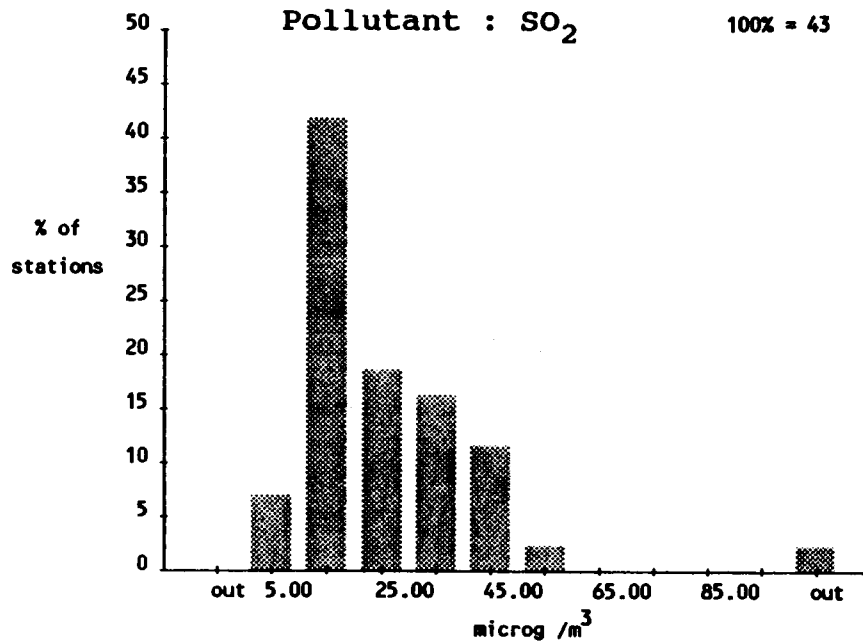
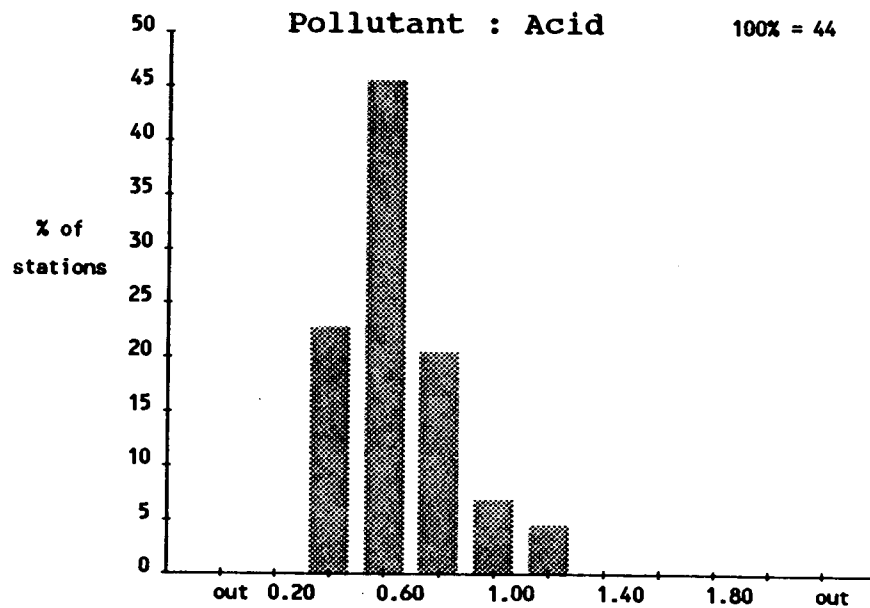
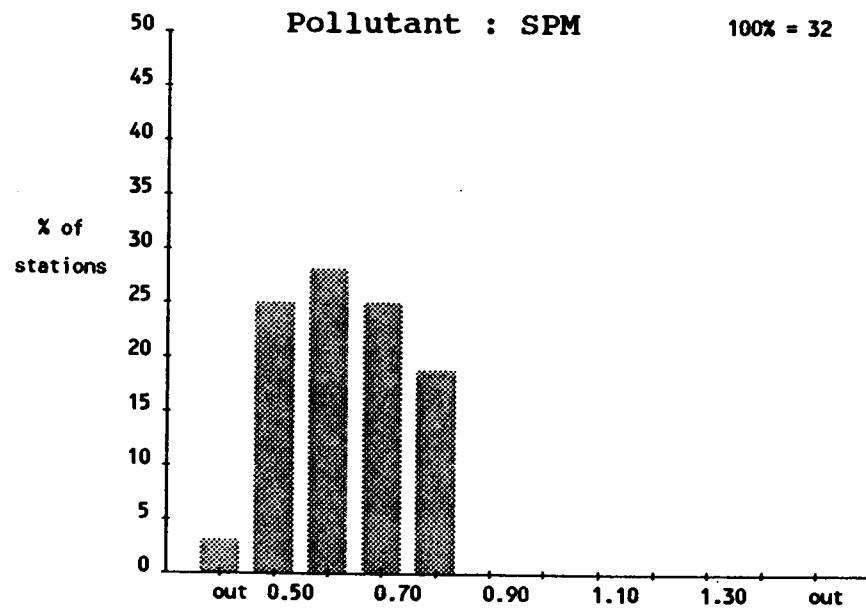
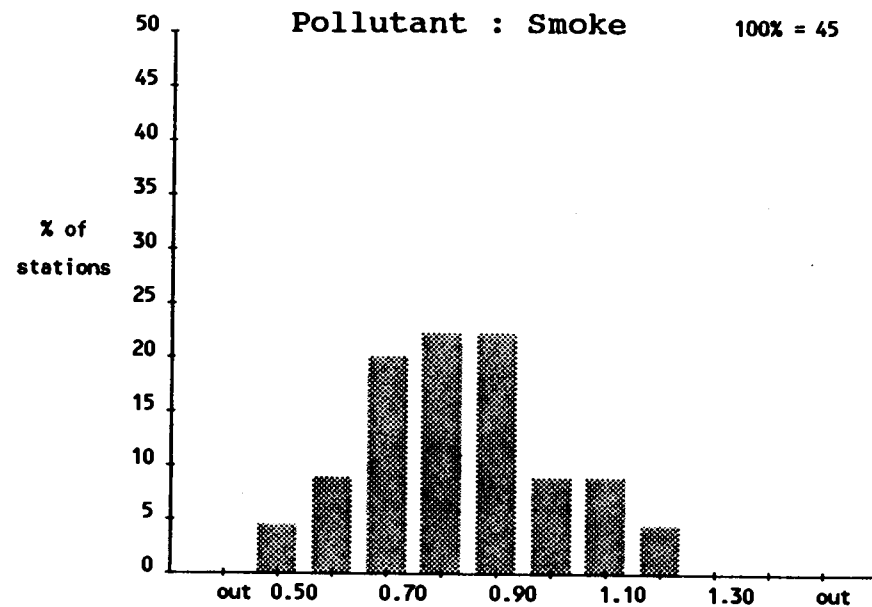
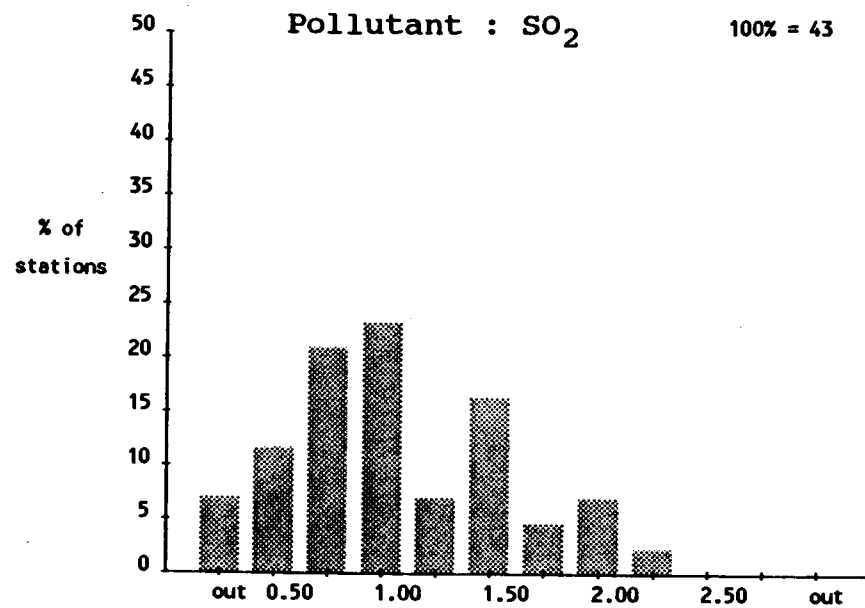


Fig. I.3.3

ANNUAL COEFFICIENT OF VARIATION FOR STATIONS - October 85 - September 86

Fig. II.3.4



ANNUAL SKEWNESS FOR STATIONS - October 85 - September 86

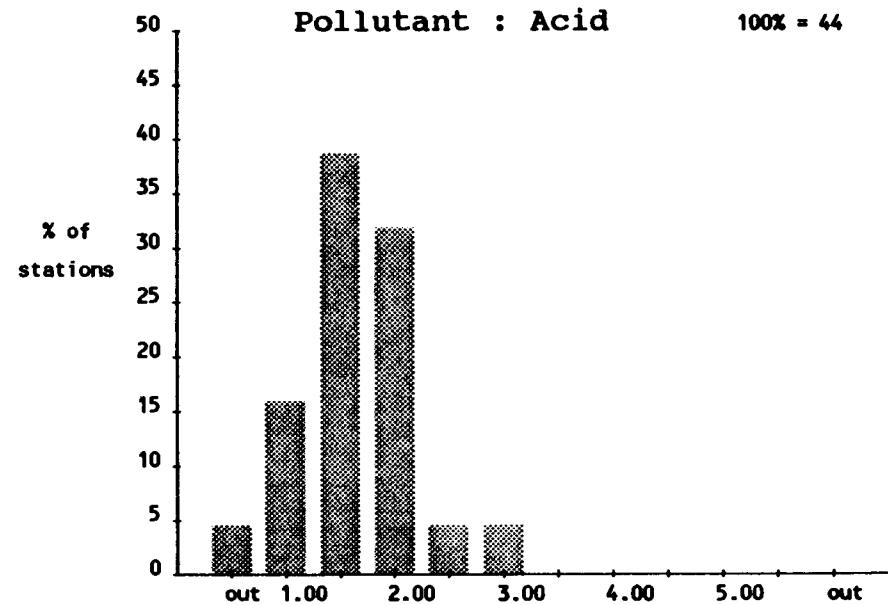
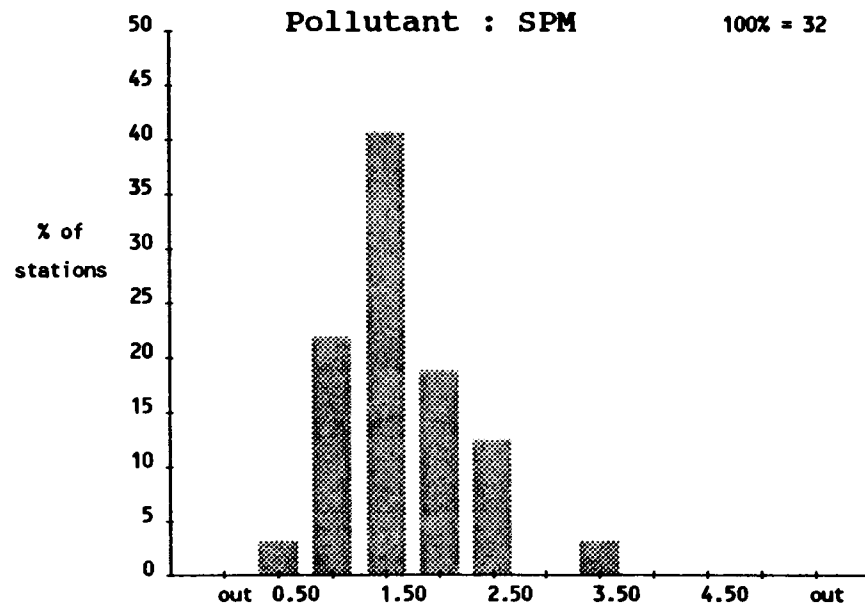
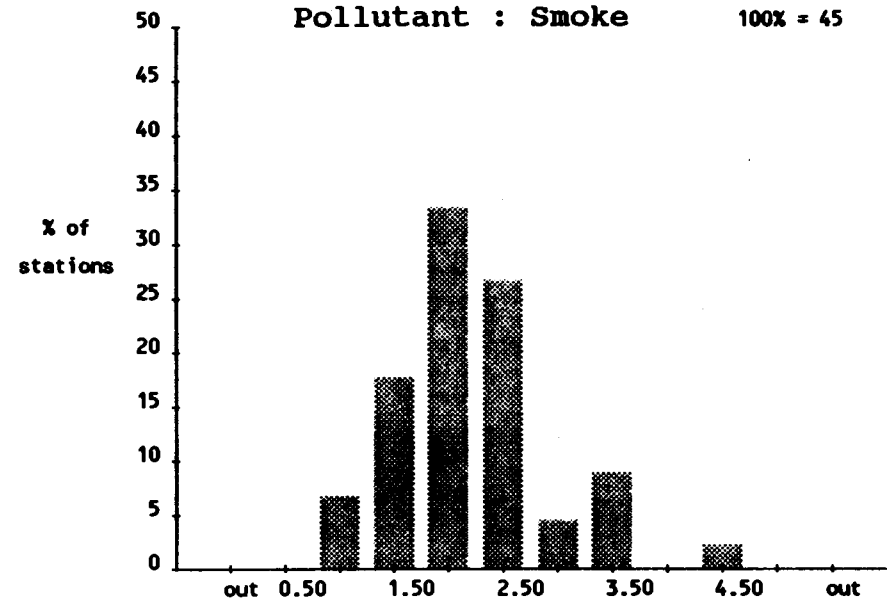
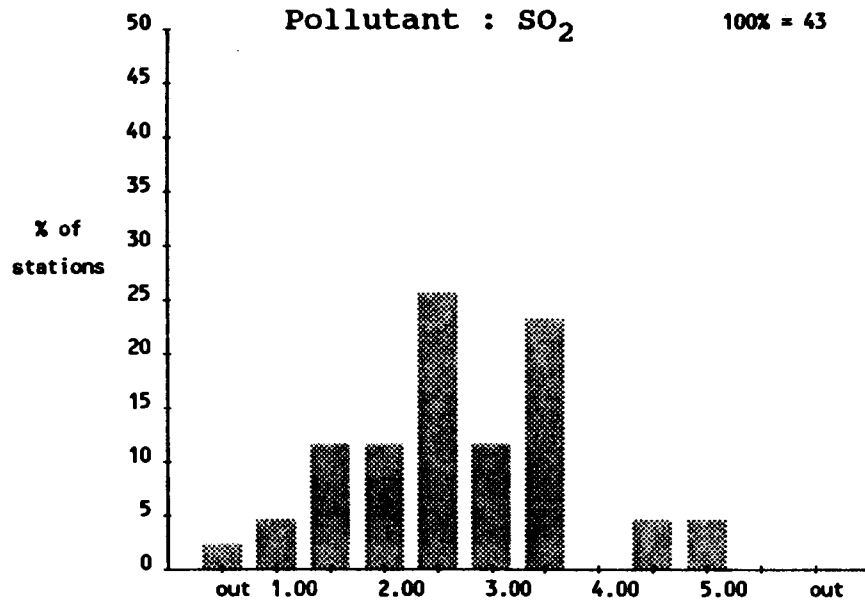


Fig. II.3.5

ANNUAL SHAPE ESTIMATOR OF THE FREQUENCY DISTRIBUTION FOR STATIONS - October 85 - September 86

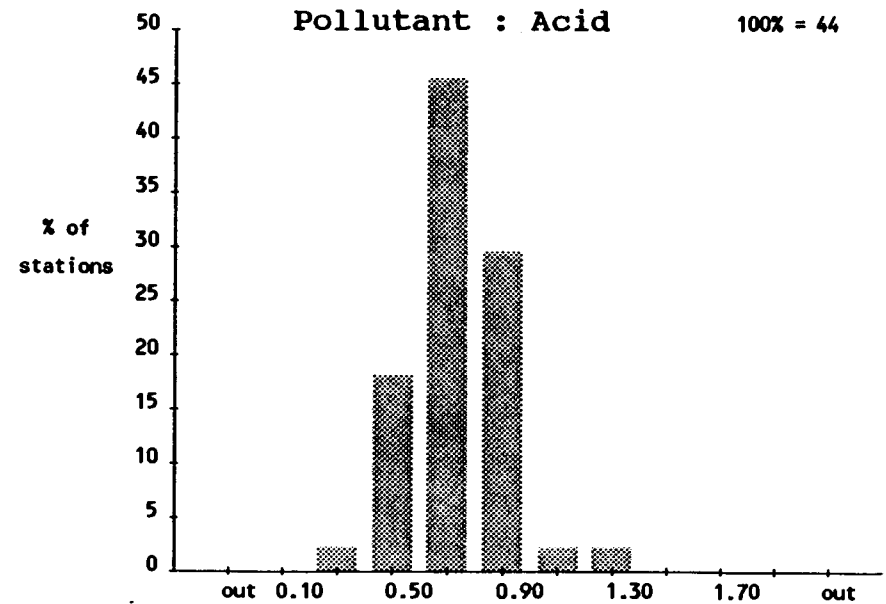
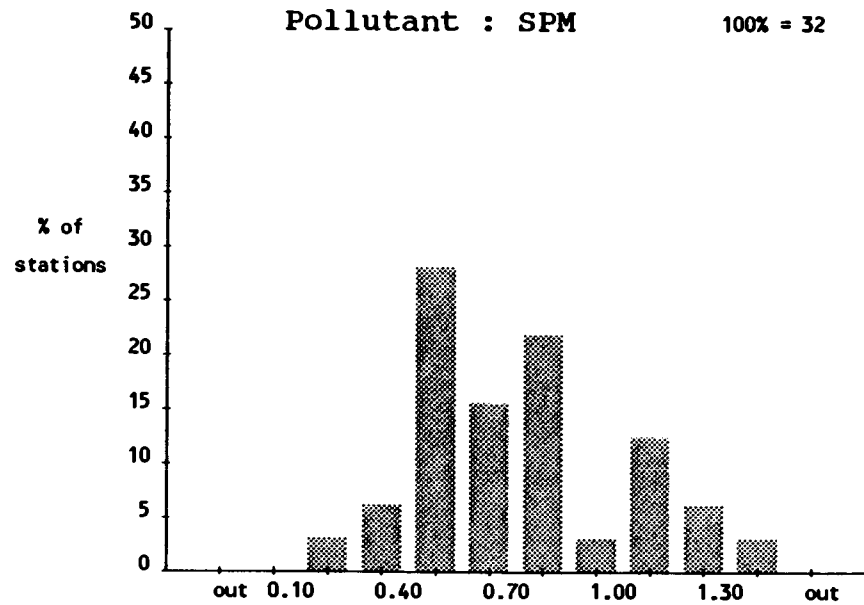
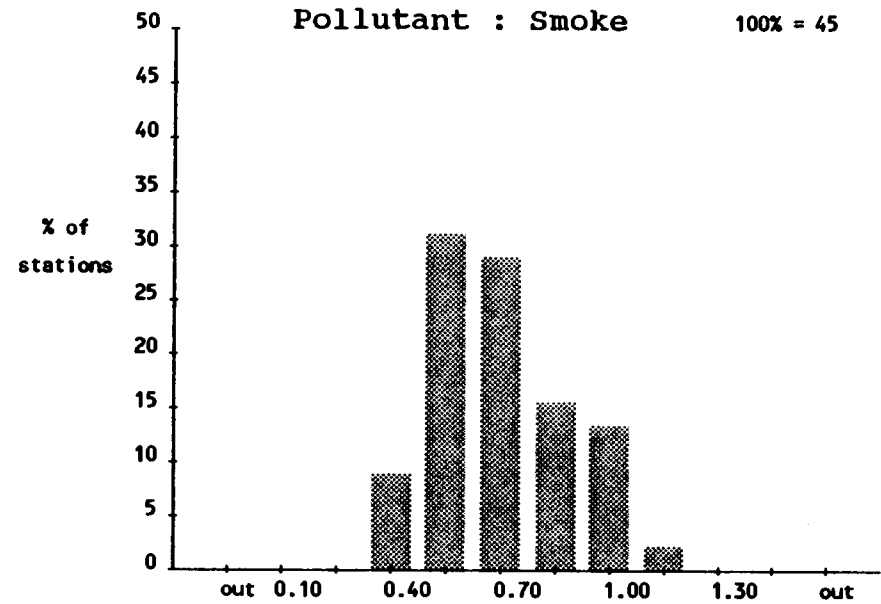
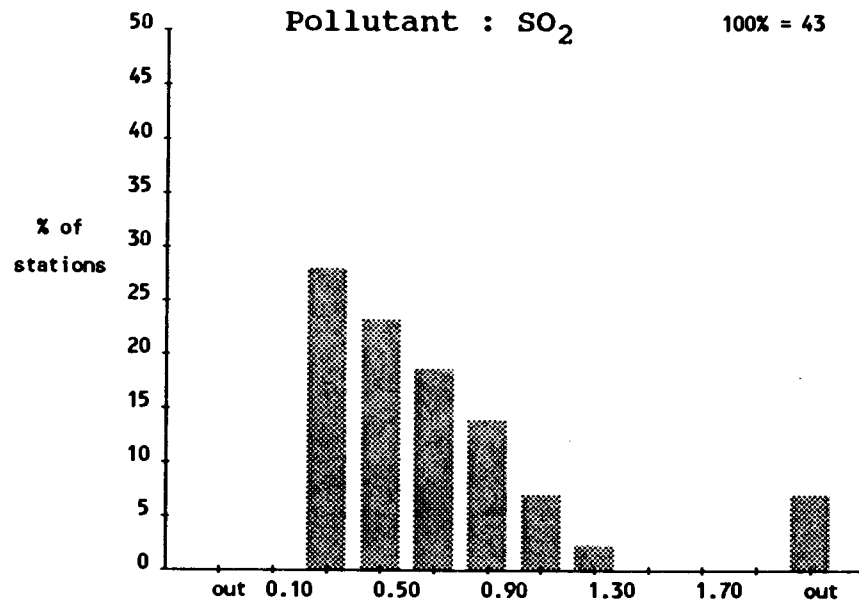


Fig. II.3.6

ANNUAL KURTOSIS FOR STATIONS - October 85 - September 86

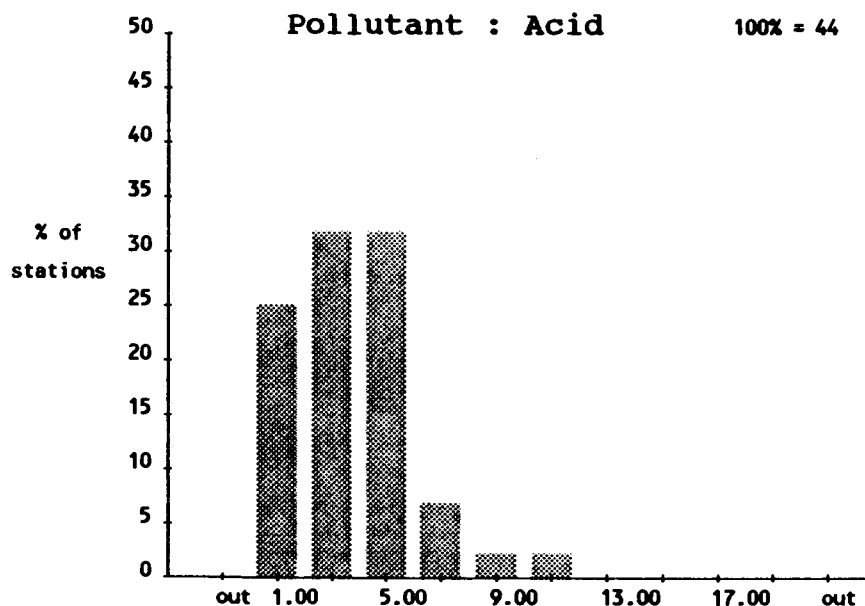
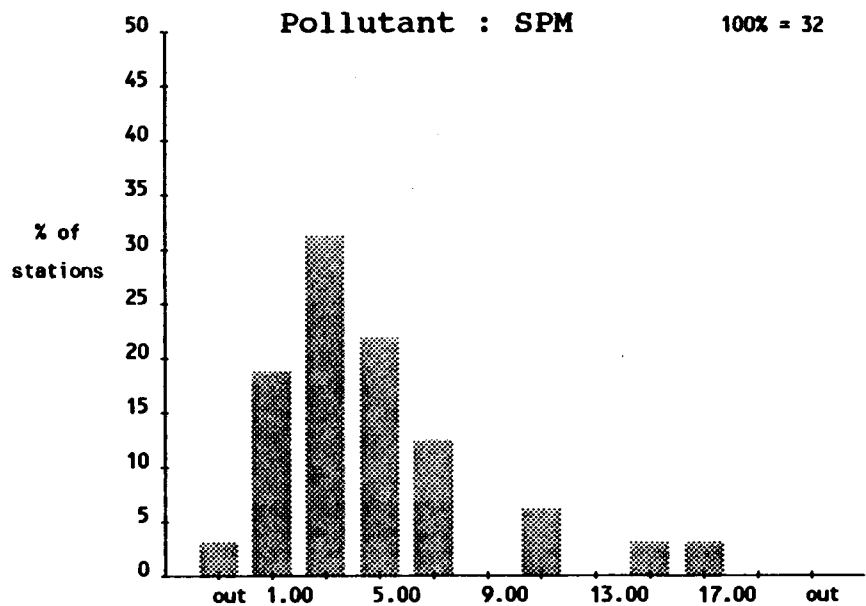
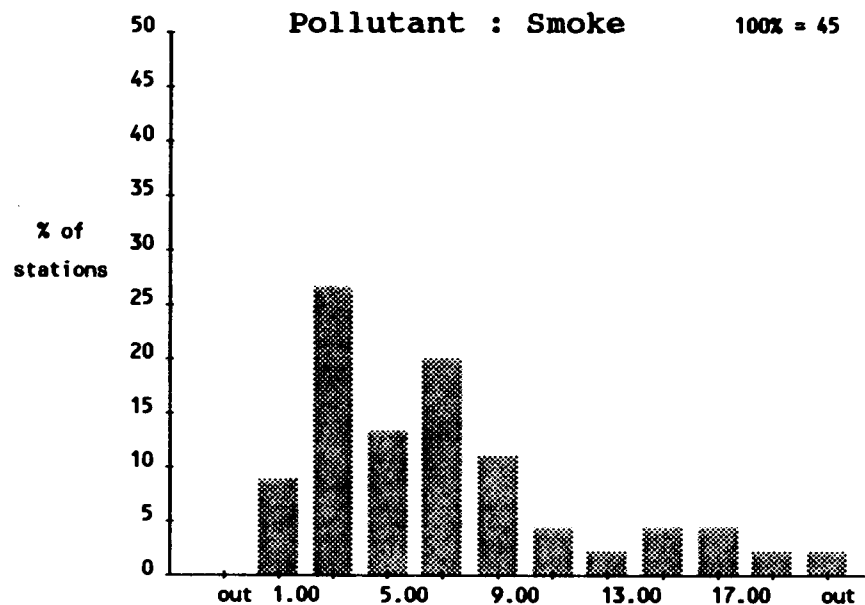
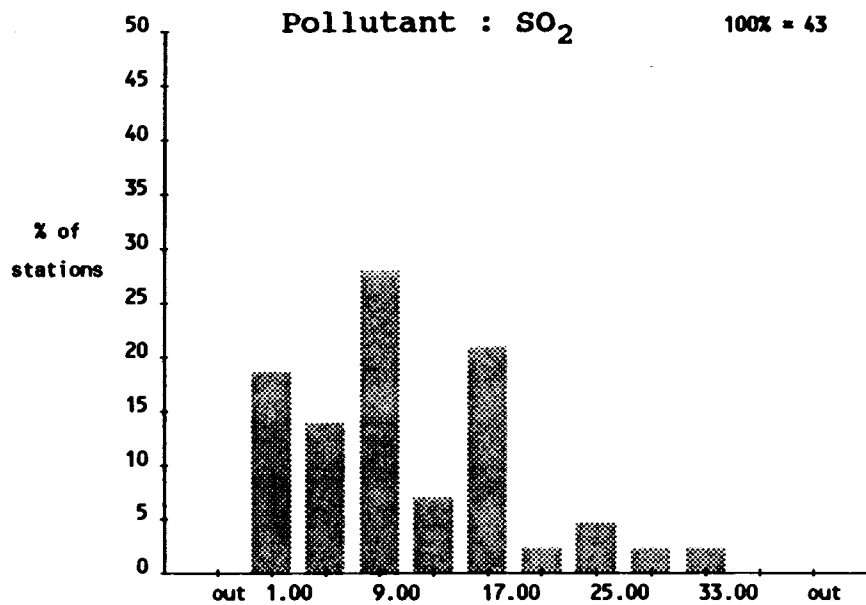


Fig. II.3.7

SCATTER CHART OF THE PERCENTILES 50 AND 98

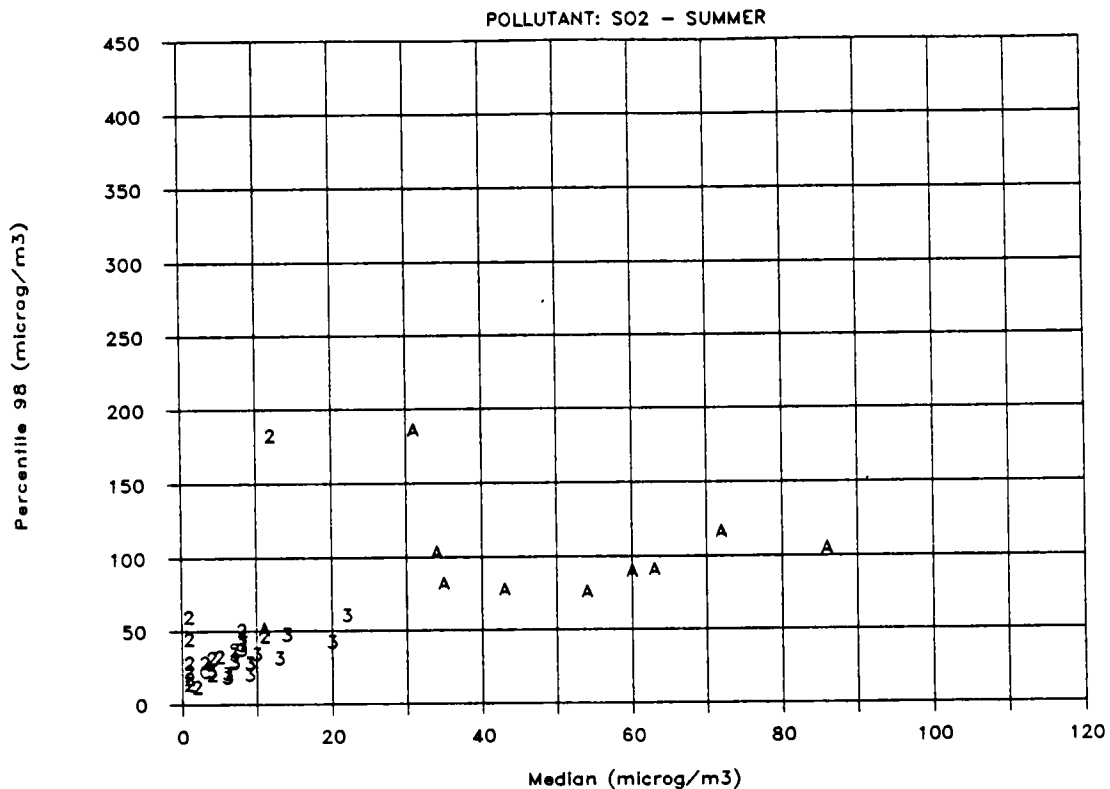


Fig. II.4.1

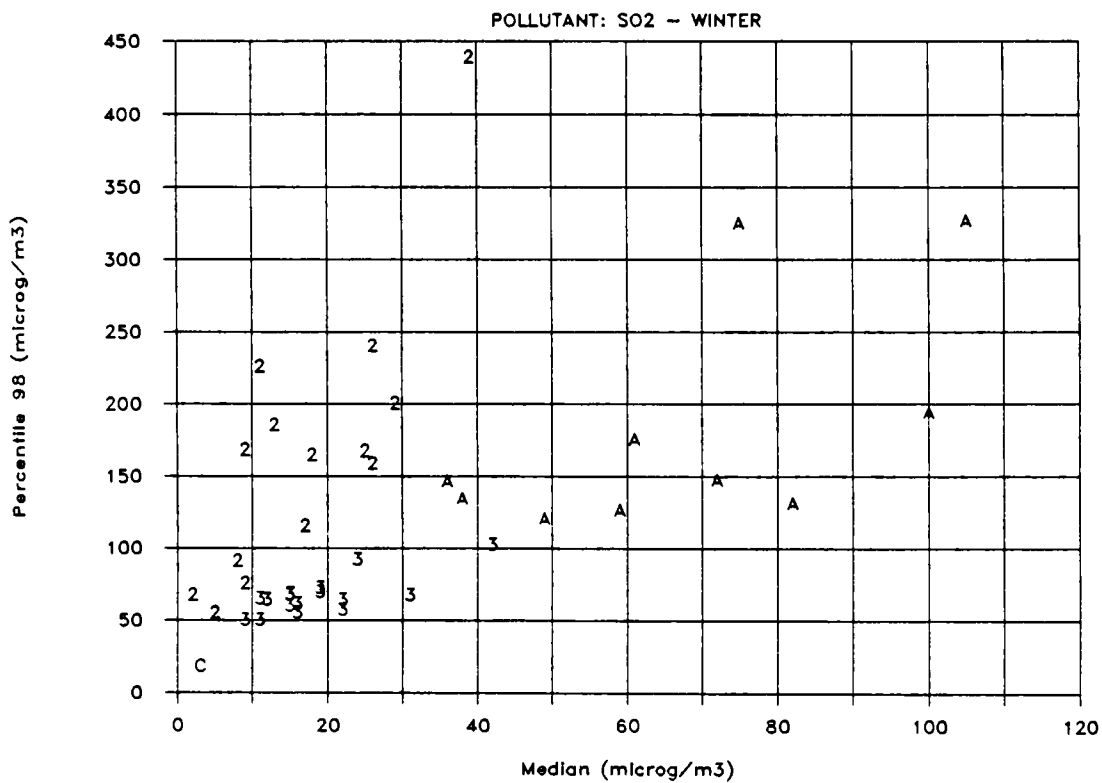


Fig. II.4.2

SCATTER CHART OF THE PERCENTILES 50 AND 98

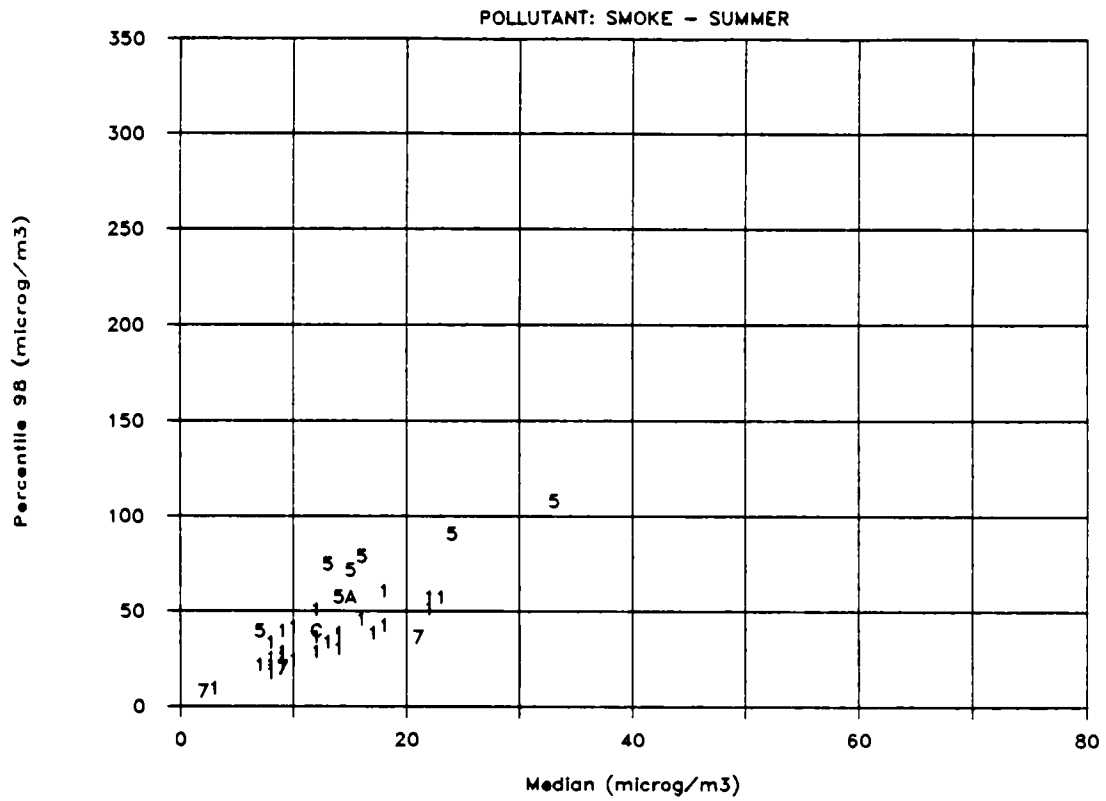


Fig. II.4.3

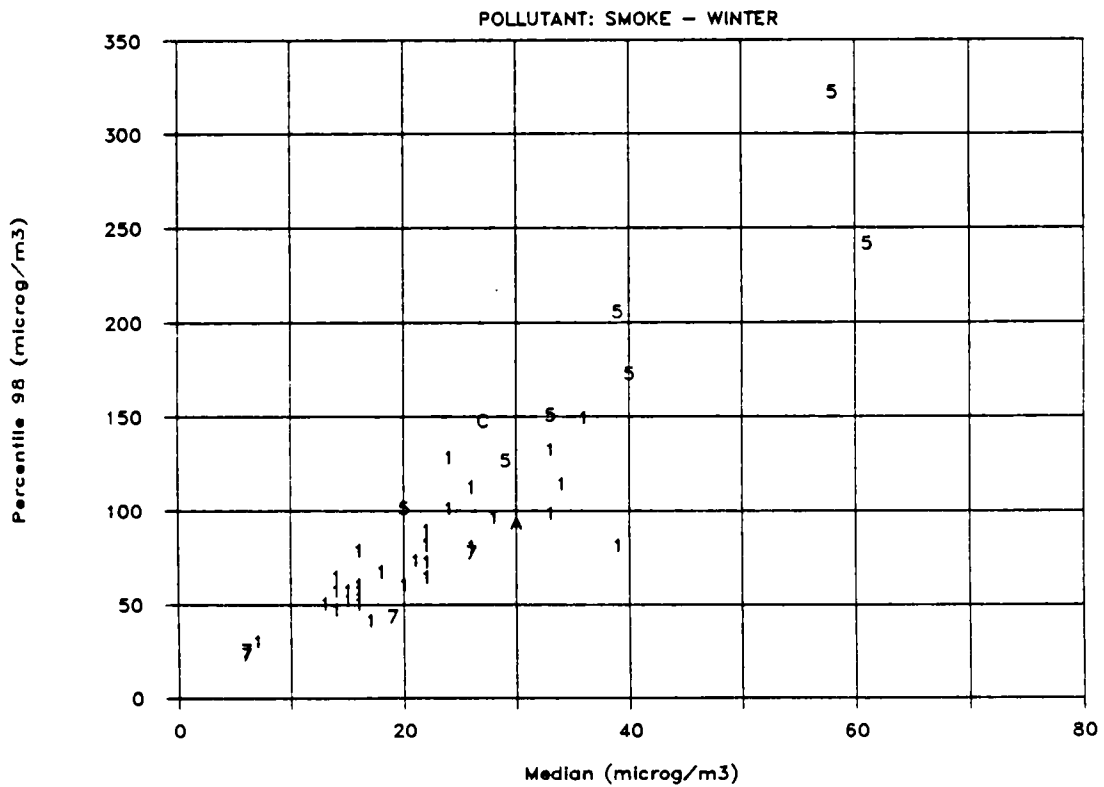


Fig. II.4.4

SCATTER CHART OF THE PERCENTILES 50 AND 98

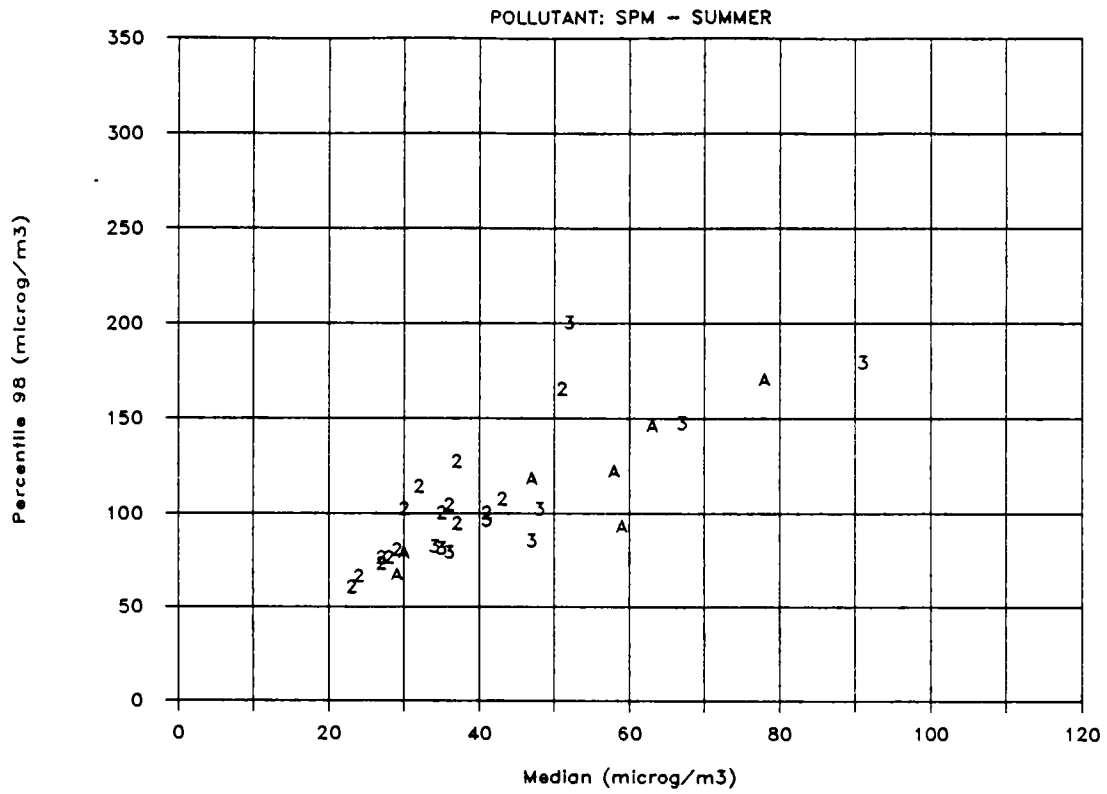


Fig. II.4.5

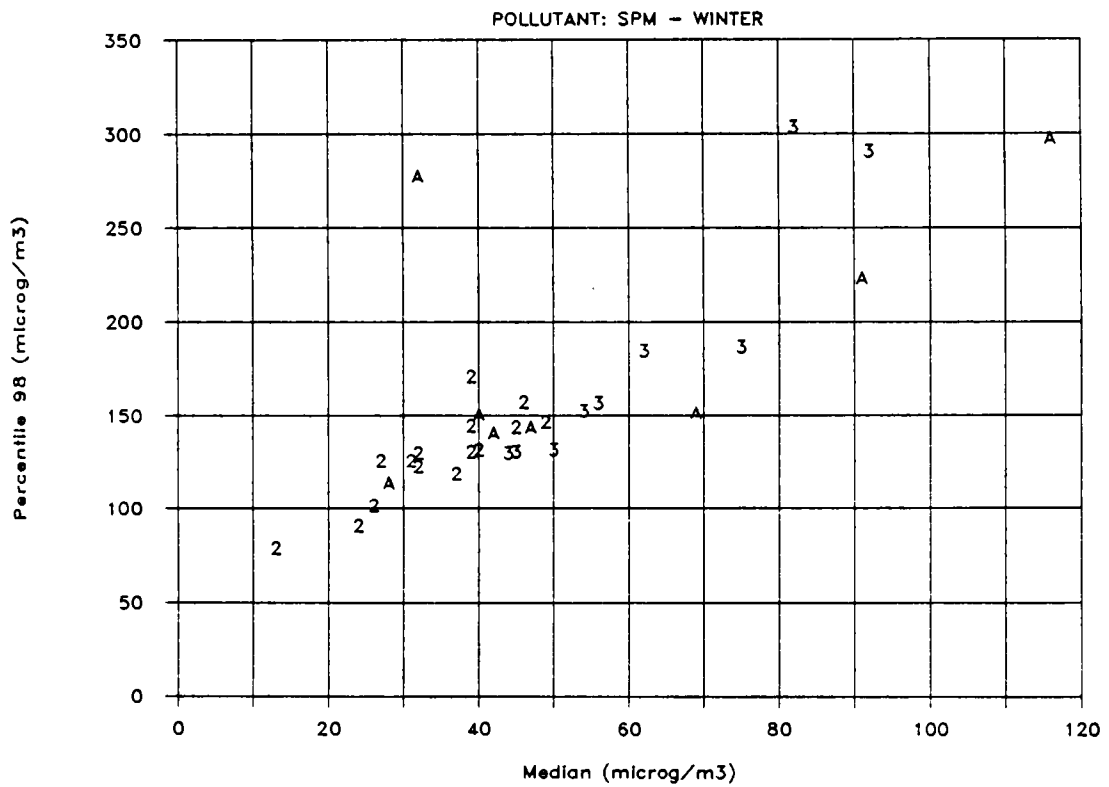


Fig. II.4.6

SCATTER CHART OF THE PERCENTILES 50 AND 98

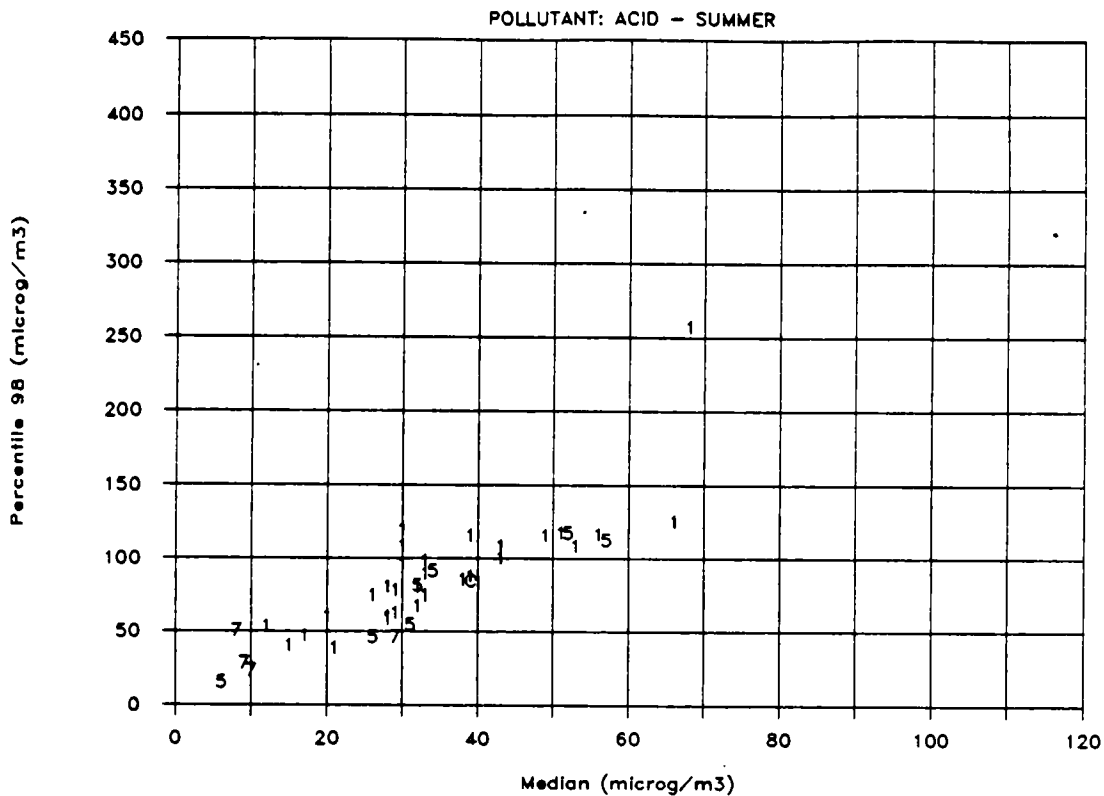


Fig. II.4.7

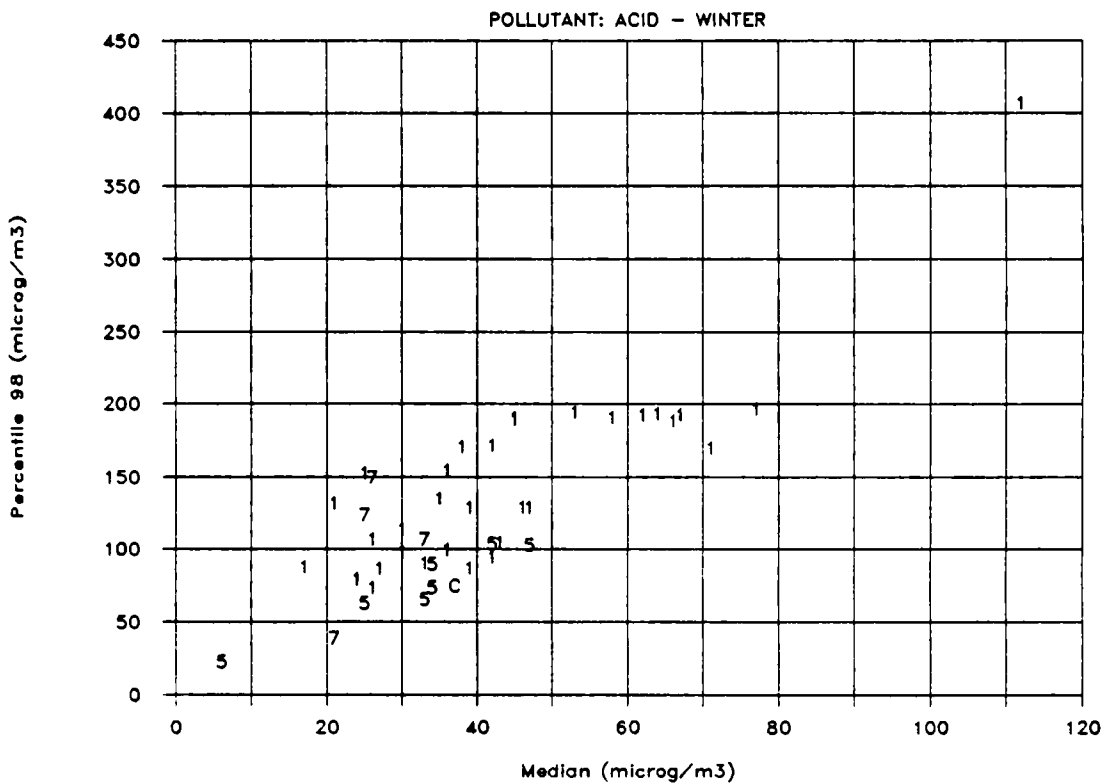


Fig. II.4.8

CORRELATION BETWEEN THE SUMMER AND WINTER PERCENTILES 50 AND 98

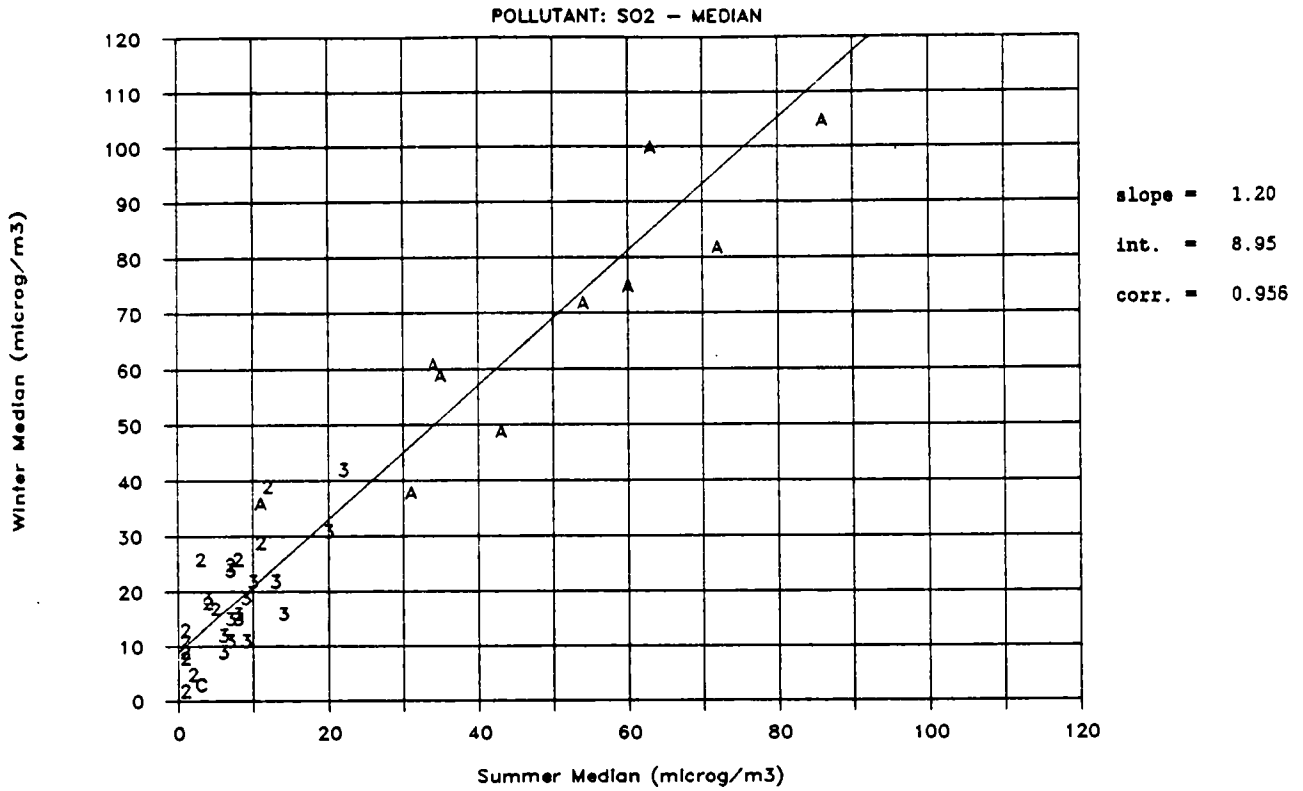


Fig. II.4.9

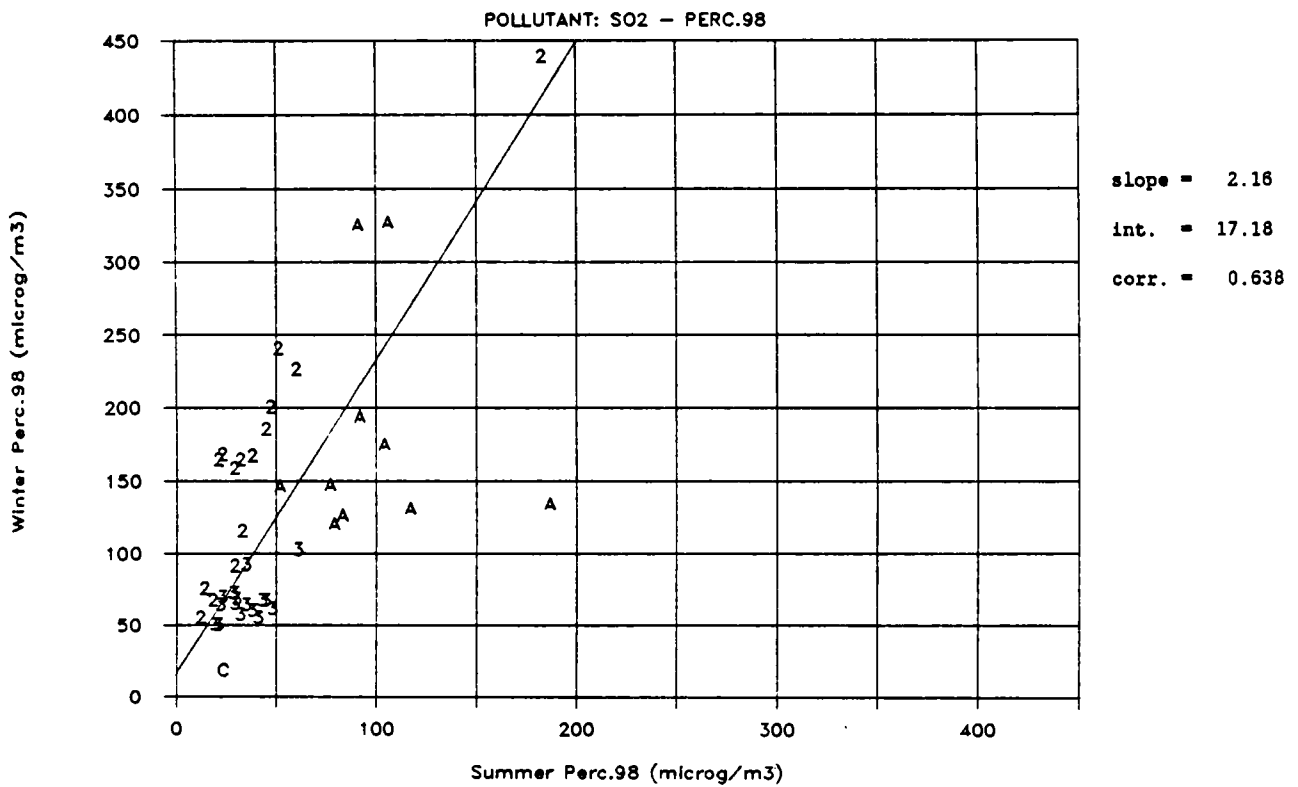


Fig. II.4.10

CORRELATION BETWEEN THE SUMMER AND WINTER PERCENTILES 50 AND 98

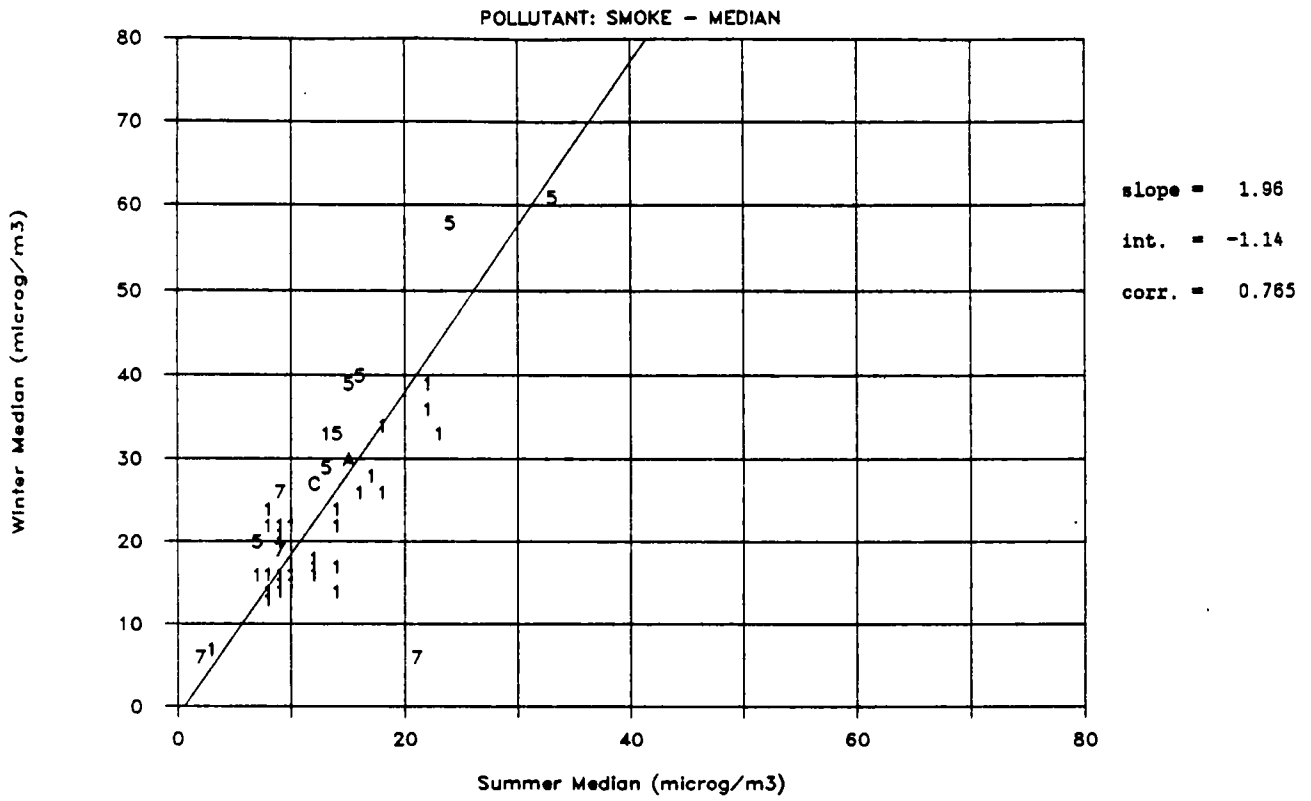


Fig. II.4.11

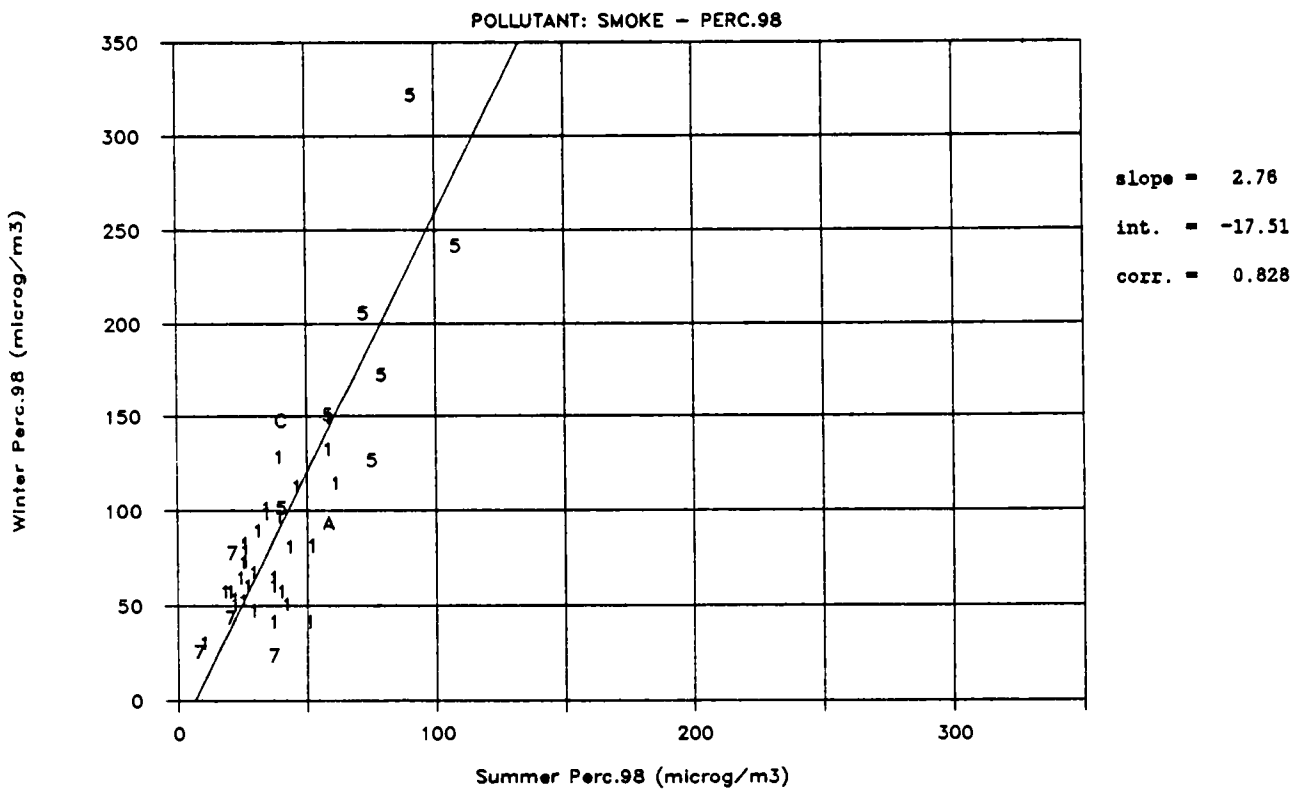


Fig. II.4.12

CORRELATION BETWEEN THE SUMMER AND WINTER PERCENTILES 50 AND 98

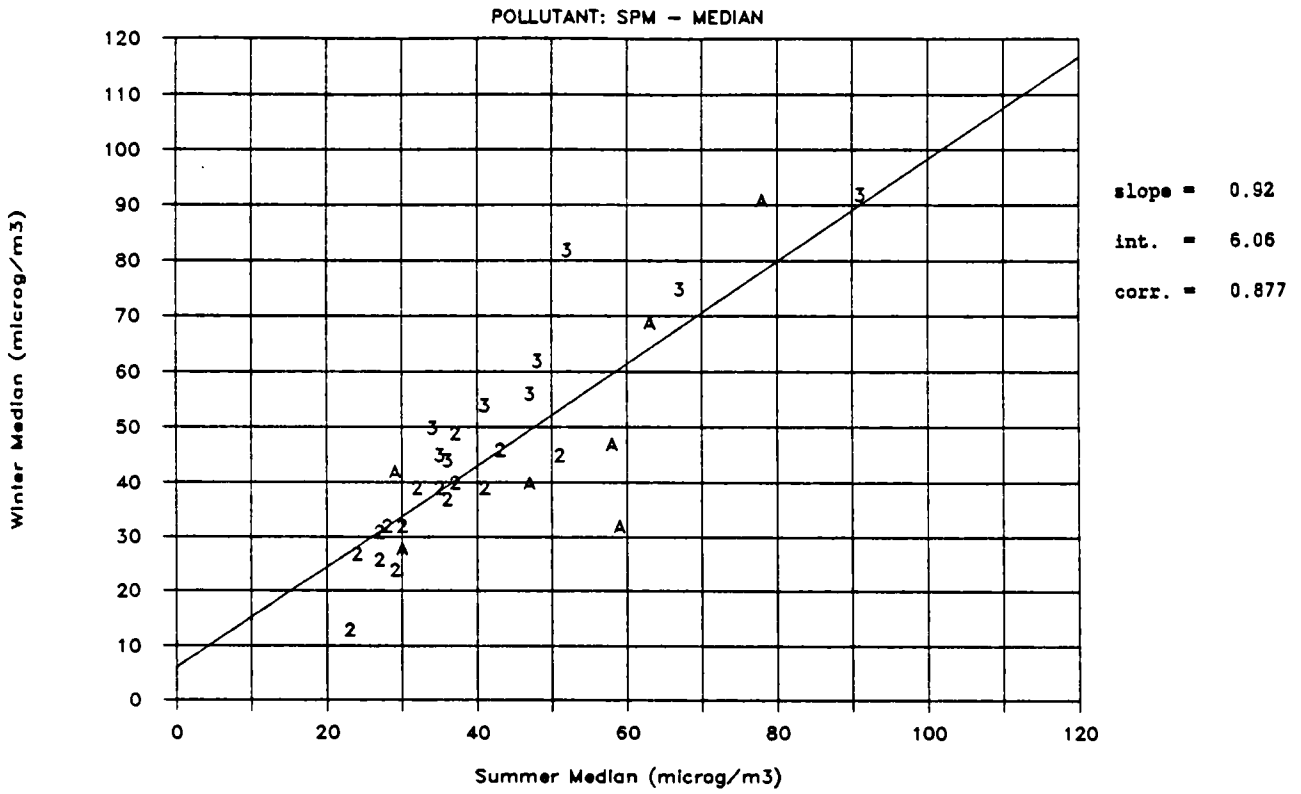


Fig. II.4.13

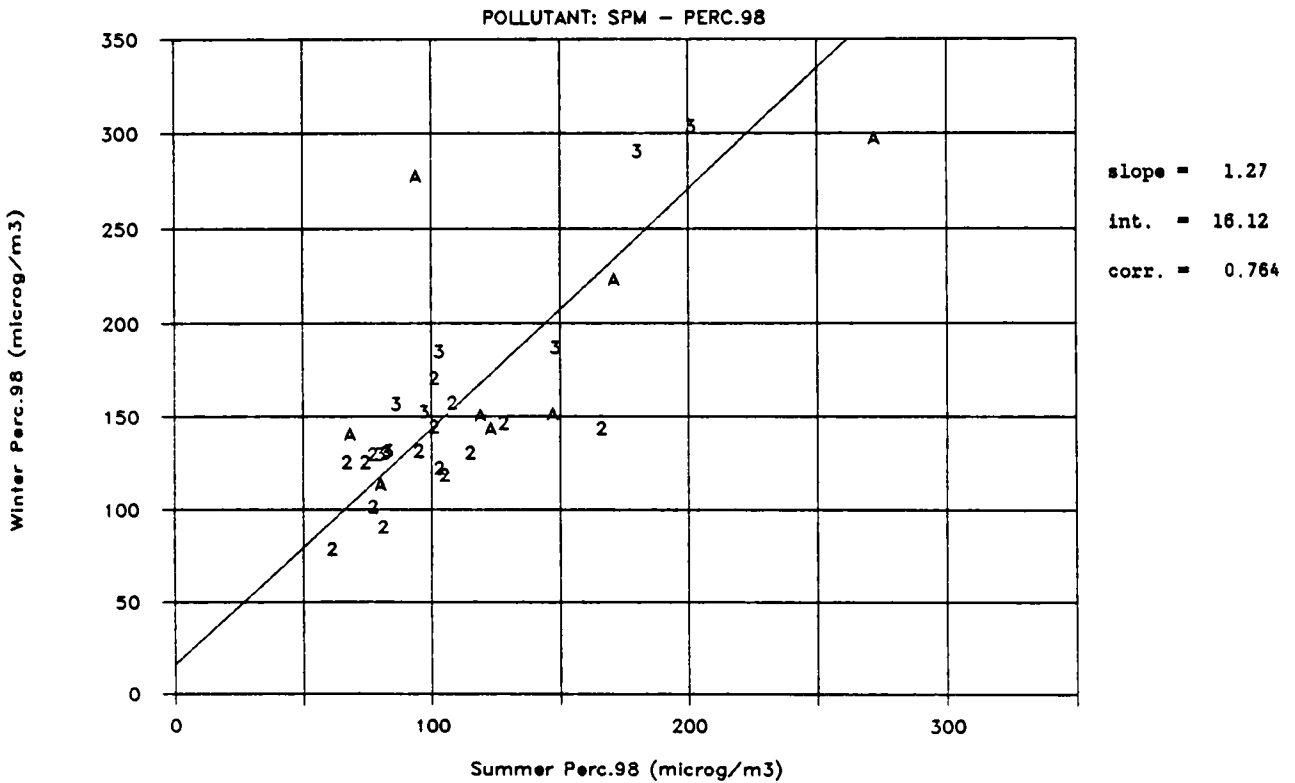


Fig. II.4.14

CORRELATION BETWEEN THE SUMMER AND WINTER PERCENTILES 50 AND 98

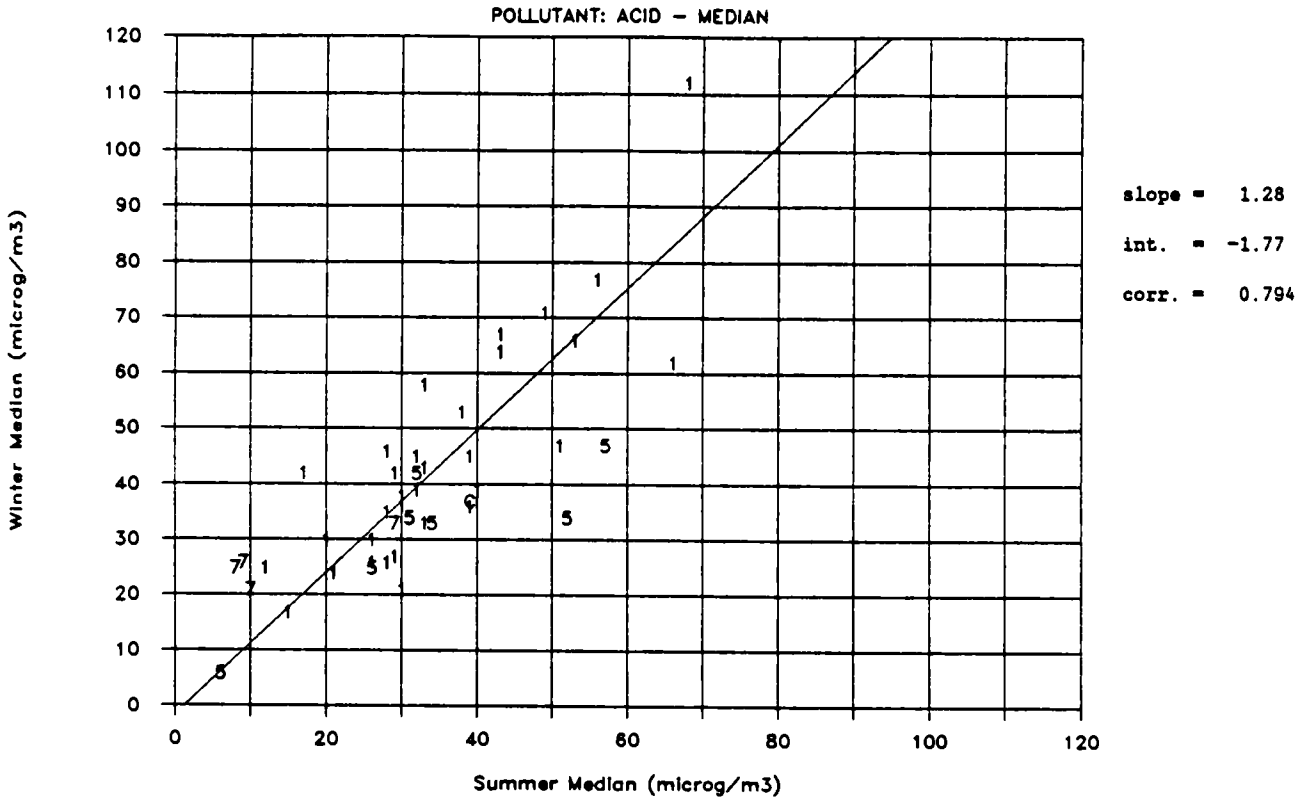


Fig. II.4.15

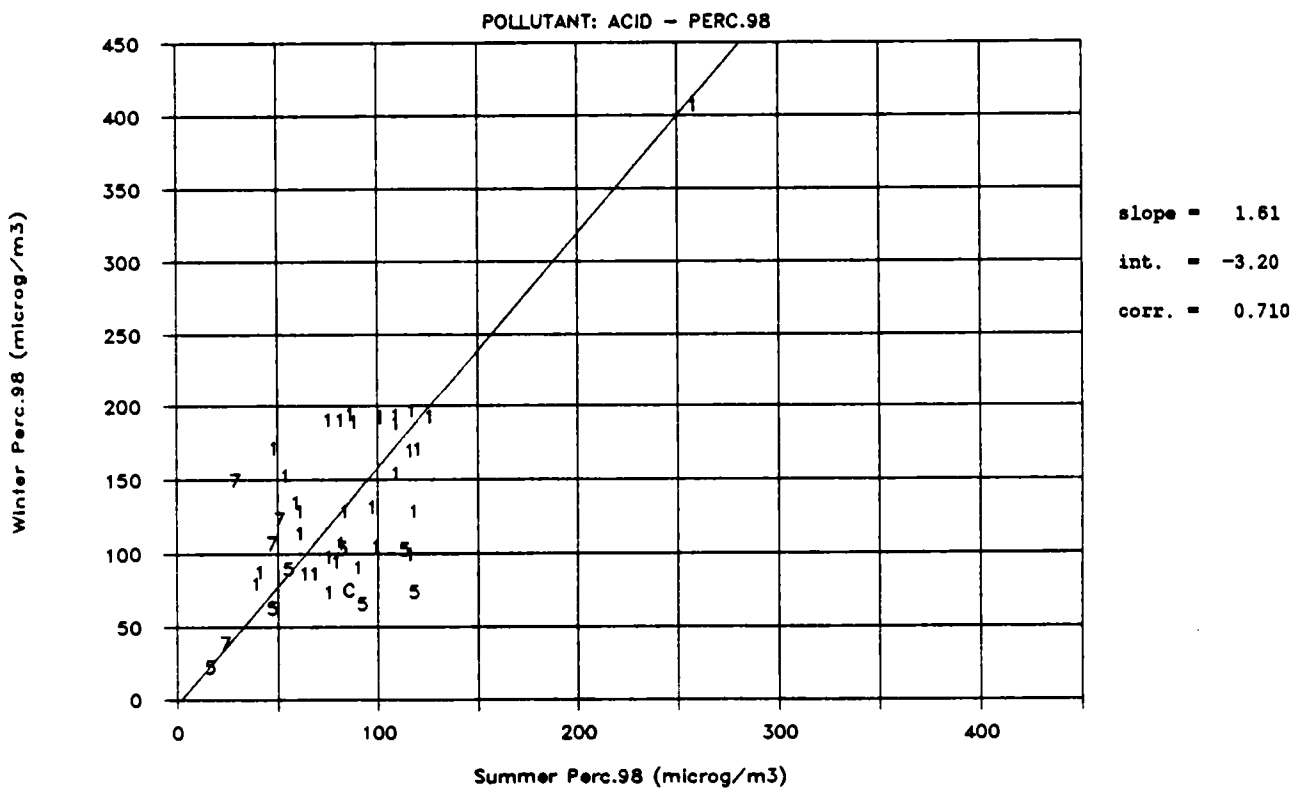


Fig. II.4.16

ISOLATED EXTREMES OF THE MONTHLY MEDIAN

PERIOD: Oct.85 - Sept.86

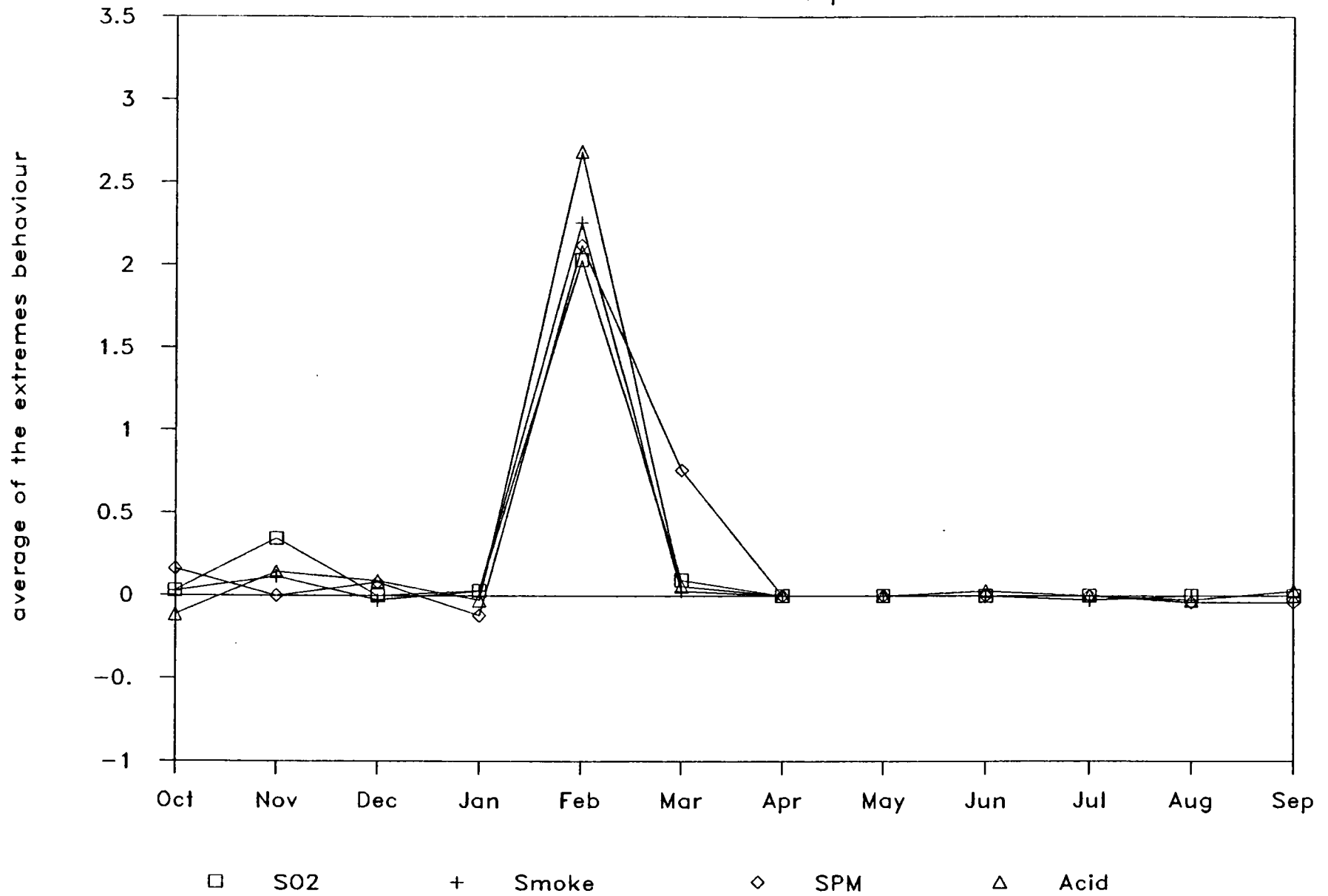


Fig. II.4.17

A N N E X E S

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<u>Selected series</u>	
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A.4 Annual descriptive parameters (see corresponding Fig. II.3.1 to II.3.7)	103
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A.6 Status of the isolated extremum of the monthly median values. (see corresponding Fig. II.4.17)	113

ANNUAL CHARACTERISTICS OF THE SERIES

October 1985 - September 1986

Annex 1: Monthly medians

Column caption:

<u>Label</u>	<u>Explanation</u>
Station code	PPCVVSSSPLTM: PP country code C town class code VV town code SSS station code PL pollutant code TM measurement technique code
monthly medians	measurement unit poll. 1-4: $\mu\text{g}/\text{m}^3$ special symbols used: "--": no data recorded for the month "." : at least one missing value for the month
cas no.	number of cases reported for the year (measured values).

Monthly medians
Pollutant 1: SO₂ (column caption: see A1.1)

Station code	Town name	Values in measurement unit												cas no
		OCT 85	NOV	DEC	JAN 86	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
043020100135	LILLE-ROUB.-	18.	26.	26.	--	--	--	--	--	--	--	--	--	73
043020230136	LILLE-ROUB.-	20.	31.	26.	--	--	--	--	--	--	--	--	--	73
044020470135	LE HAVRE	--	--	--	--	--	--	--	--	--	--	--	--	0
044040040135	ROUEN	--	85.	85.	--	--	--	--	--	--	--	--	--	25
045040050135	DUNKERQUE	15.	36.	11.	--	--	--	--	--	--	--	--	--	82
045040070136	DUNKERQUE	25.	15.	12.	--	--	--	--	--	--	--	--	--	70
045040110135	DUNKERQUE	9.	22.	17.	--	--	--	--	--	--	--	--	--	79
045040130135	DUNKERQUE	0.	0.	0.	--	--	--	--	--	--	--	--	--	77
061020070125	ROMA, ITALIA	26	--	--	--	--	--	--	--	--	--	--	--	31
061020080125	ROMA, ITALIA	52.	--	--	--	--	--	--	--	--	--	--	--	16
061020090125	ROMA, ITALIA	26	--	--	--	--	--	--	--	--	--	--	--	31
062010010122	TORINO	74.	88.	125	--	--	--	--	--	--	--	--	--	70
062010020122	TORINO	--	94.	133	--	--	--	--	--	--	--	--	--	60
064080010124	PESCARA	0.	8.	9.	12.	17.	11.	3.	7.	1.	4.	6.	3.	104
065090010124	PISTOIA	--	--	--	29.	13.	13.	--	--	--	--	--	--	34
065140010124	VERCELLI	--	--	--	60.	46.	47.	--	--	--	--	--	--	60
101010010138	MADRID	--	--	--	75	76	64	65	52	52	52	53	56	273
101010020138	MADRID	--	--	--	117	108	97	90	72	85	90	93	82	273
101010030138	MADRID	--	--	--	76	99	63	80	66	70	53	79	78	273
101010040138	MADRID	--	--	--	80	56	38	35	59	43	41	56	51	273
101010050138	MADRID	--	--	--	44	76	81	70	60	62	58	57	59	273
101010060138	MADRID	--	--	--	118	75	110	77	78	55	52	57	44	273
101020010138	BARCELONA	--	--	--	73	111.	40.	27.	19.	39.	32.	30.	63.	242
101020020138	BARCELONA	--	--	--	82.	23.	58	35	28.	36	35.	37.	36.	248
101020030138	BARCELONA	--	--	--	61.	180.	70.	--	29.	24.	27.	20	22.	191
101020040138	BARCELONA	--	--	--	31	19.	--	14	29	13	21	15	--	189
101020050138	BARCELONA	--	--	--	--	--	--	--	34.	--	--	--	--	9
103010010139	SEVILLA	--	--	--	55	64	70	57.	--	--	--	--	--	104
104010010140	BILBAO	--	--	--	--	--	--	51	53.	45	38	28	38	182
104010020140	BILBAO	--	--	--	--	--	--	28.	46.	37.	36	32.	--	102
104010030140	BILBAO	--	--	--	--	--	--	36.	68	27	56	41	67	178
104010040140	BILBAO	--	--	--	--	--	--	43	146	96	142	27	115	183
104020010138	SANTA CRUZ D	--	--	--	64	56	28	21	31	33	36	46	31	273
105010010139	PALENCIA	--	--	--	71	38	18	13	12	8	8	13	17	273
122010010134	LISBOA LUMIA	--	--	--	1.	1.	5.	1.	3.	1.	4.	1.	1.	217
122010080134	LISBOA LUMIA	--	--	--	8.	18.	6.	6.	6.	1.	4.	1.	1.	201
125010010141	BARREIRO - A	--	--	--	40.	13.	10.	14.	13.	13.	30	17	12.	215
125010020141	BARREIRO - A	--	--	--	53.	18.	36	45.	58	79.	52.	50	15.	222
125010030141	BARREIRO - A	--	--	--	52	9.	43.	33.	35.	85.	92.	92.	15.	219
125020010141	SINES - MONT	--	--	--	6.	0.	5.	0.	2.	3	7.	5.	3.	252

Monthly medians
Pollutant 2: Smoke (column caption: see A1.1)

Station code PPCVVSSSPLTM	Town name	Values in measurement unit												cas no
		OCT 85	NOV	DEC	JAN 86	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
044040060210	ROUEN	22	55.	24	--	--	--	--	--	--	--	--	--	91
044040070210	ROUEN	16.	38.	24	--	--	--	--	--	--	--	--	--	82
044040110210	ROUEN	19	31	24	--	--	--	--	--	--	--	--	--	92
044042080210	ROUEN	3	7.	14	--	--	--	--	--	--	--	--	--	82
053010010204	DUBLIN	79	72	71	78	46.	48	47	28	20	24	27.	46	363
053010040204	DUBLIN	58.	89	41.	60	63.	30.	52.	21.	24.	14.	21	46	320
053010070204	DUBLIN	52.	61.	--	--	18.	32	25	16	12.	11.	13	25	276
053010100204	DUBLIN	21	41	34.	32	41	15	18	14.	7	8	16.	32	348
053011030204	DUBLIN	32	35.	42	56	56	31	39.	25	9	8	16	39	362
054010010205	CORK	18.	39.	45	53.	31.	34	34.	18.	15	8	9.	27	317
055010010206	GALWAY	9	45	16	27	44	13	18	7	5	2	4.	12	351
056990020205	BACKGROUND S	2	--	--	--	--	--	1	1	3	--	1	4	183
075013520201	LUXEMBOURG-V	26	29	20.	--	28.	19	--	--	--	7.	9	13	183
075013530201	LUXEMBOURG-V	4	9	10	6	6.	6	--	--	--	21.	26	19	265
075023550201	ESCH-SUR-ALZ	28	17	22.	--	12.	15	11	11	10	6.	--	5.	265
075033600201	STEINFORT	36	24	20	23	48.	22	11	8	8	9.	8	11.	353
076990010201	SITE DE FOND	7	8	7	2	15	2	2	1	3	1.	2.	3	357
103010010224	SEVILLA	--	--	--	109	109	86	91.	--	--	--	--	--	104
104010010224	BILBAO	--	--	--	--	--	--	30	33.	34	30	17	40	182
104010020224	BILBAO	--	--	--	--	--	--	21.	30.	22.	16	13.	--	101
104010030224	BILBAO	--	--	--	--	--	--	14.	22	22	14	10	31	178
104010040224	BILBAO	--	--	--	--	--	--	19	18	12	9	6	19	183
105010010224	PALENCIA	--	--	--	37	37	24	18	12	11	12	17	22	273
122010080225	LISBOA LUMIA	--	--	--	64.	57.	46.	45.	31.	30.	36.	24.	35.	208
122010090225	LISBOA LUMIA	--	--	--	198.	141.	93.	101.	95	116.	163.	120.	70.	222
122010130225	LISBOA LUMIA	--	--	--	24.	35.	26.	11	14	17	17.	7	2	255
124010010225	PORTO	--	--	--	27	22	18.	15.	7.	13.	13.	9.	15.	223
124010080225	PORTO	--	--	--	19.	16.	9.	7	10.	9.	9.	11.	14	201
124020050225	LECA DE PALM	--	--	--	19.	10.	9	6.	4.	6.	9.	--	11.	214

Monthly medians
Pollutant 3: SPM (column caption: see A1.1)

Station code	Town name	Values in measurement unit												cas no
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
		85			86									
023010030303	DORTMUND	96.	64.	61.	--	--	--	--	--	--	--	--	--	36
023020030303	DUISBURG	91.	71.	70.	--	--	--	--	--	--	--	--	--	36
026990010308	B.R. DEUTSCH	33	33	37	34	70.	55	38	43	61	49.	43.	28	361
026990020308	B.R. DEUTSCH	45	48	28	17	89	55	26.	32.	44	34	26.	38	351
026990030308	B.R. DEUTSCH	54	66.	34	24	90	66	27.	34.	52	38	37	40	350
026990040308	B.R. DEUTSCH	42	30	22	16	72	34.	22	27	40	31	31	33.	362
026990050308	B.R. DEUTSCH	44	56	36	32	69	78	44.	51.	41	43.	43	28	360
026990060308	B.R. DEUTSCH	32	23	14	13	49	29.	27	29	37	35	24	34	364
026990070308	B.R. DEUTSCH	25	13	6	6	29	22.	15.	19.	26	32	22	30	357
026990080308	B.R. DEUTSCH	30	34.	28	22	35	49	34.	35	23.	22	29	15.	350
026990090308	B.R. DEUTSCH	43.	48	30.	23.	71.	55.	39.	39	38.	29.	37.	23	338
026990100308	B.R. DEUTSCH	39	45	26	25	62	51	27.	42.	40	35	36	36	350
026990120308	B.R. DEUTSCH	44	46	29	26	82	73	35.	38	34	39	43	35	363
026990130308	B.R. DEUTSCH	45	43	19	14	80	53	25.	28.	34	29	24	34	354
026990140308	B.R. DEUTSCH	39	25	13.	10.	89	38	21.	24.	22	25	22	28	361
026990150308	B.R. DEUTSCH	28.	31.	18	15	71	46	19.	30.	38	25	25.	29	335
026990160308	B.R. DEUTSCH	57.	57	25	20	101	67	44.	43.	69	55.	45.	61	349
032011010347	KOBENHAVN	68	40	46	43	55	77	50	50	38	38	42	40	365
032011030347	KOBENHAVN	109	72	75	85	145	111	101	99	91	82	84	84	365
032012100347	KOBENHAVN	54	37	37	36	48	64	36.	34	37.	29	33	35	357
032012210347	KOBENHAVN	65	35	46	40	49	70	46.	37	33	32	30	32	351
032013420347	KOBENHAVN	62	32	40	38	43	63	43	40	32	35	33	34	365
032013480347	KOBENHAVN	62	30	40	39	37	59	40.	44.	37.	30.	41.	--	253
034018150347	AALBORG	53	83	68	68	124	119	116	83	70	32	4	44	365
034029150347	ODENSE	62	62	56	50	75	79	59	50	46	42	46	41	365
035015850347	ESBJERG	52	53	52	54	72	66	56	56	46	41	44	42	365
035025150347	FREDERICIA	77	59	58	56	60	56.	--	--	--	--	--	--	166
035033510347	NAESTVED	93	74	59	54	78	84	78	79	61	55	50	63	365
035046350347	RANDERS	41	40	30	--	--	--	--	--	4	46	46	46	214
041010970318	PARIS	159	128.	94.	--	--	--	--	--	--	--	--	--	83
043020080318	LILLE-ROUB.-	26.	42.	20.	--	--	--	--	--	--	--	--	--	40
043020230318	LILLE-ROUB.-	32.	25.	26.	--	--	--	--	--	--	--	--	--	69
044020290318	LE HAVRE	17.	11.	6	--	--	--	--	--	--	--	--	--	84
044020470318	LE HAVRE	41.	33	20.	--	--	--	--	--	--	--	--	--	88
044040040318	ROUEN	40.	47.	37	--	--	--	--	--	--	--	--	--	87
045020190318	FOS-BERRE	--	--	--	--	--	--	--	--	--	--	--	--	0
045040050318	DUNKERQUE	58.	45.	27.	--	--	--	--	--	--	--	--	--	78
045040070318	DUNKERQUE	58.	46.	29.	--	--	--	--	--	--	--	--	--	81
045040110318	DUNKERQUE	58.	43.	38.	--	--	--	--	--	--	--	--	--	76
045040130318	DUNKERQUE	29.	27.	13.	--	--	--	--	--	--	--	--	--	72
062010010315	TORINO	188	135	249	--	--	--	--	--	--	--	--	--	92
062010020315	TORINO	180	92	173	--	--	--	--	--	--	--	--	--	92
064080010315	PESCARA	123.	80.	159.	124.	108.	78.	61.	112.	57.	73.	88.	108.	103
065090010315	PISTOIA	--	--	--	61.	42.	52.	48.	55.	41.	33.	32.	48.	163
065140010315	VERCELLI	--	--	--	92	101.	142	58	77.	72	75.	--	92.	211
101010010349	MADRID	--	--	--	52	85	70	84	66	58	75	59	58	273
101010020349	MADRID	--	--	--	51	44	39	25	27	15	30	34	42	273
101010030349	MADRID	--	--	--	72	44	42	61	58	55	63	58	62	273
101010040349	MADRID	--	--	--	30	30	24	16	30	38	42	28	31	273

Monthly medians
Pollutant 3: SPM (column caption: see A1.1)

Station code	Town name	Values in measurement unit												cas
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	no
		85			86									

101010050349	MADRID	--	--	--	37	46	23	22	66	67	68	53	62	273
101010060349	MADRID	--	--	--	43	27	40	23	31	62	69	54	43	273
101020010349	BARCELONA	--	--	--	110.	169.	110.	140	179.	166.	140.	112.	122	240
101020020349	BARCELONA	--	--	--	58.	--	191	163	218.	217	189.	195.	111	231
101020030349	BARCELONA	--	--	--	99	--	158	132	156	139	150	137	--	215
104020010349	SANTA CRUZ D	--	--	--	108	143	59	59	68	56	96	86	104	273
122010010320	LISBOA LUMIA	--	--	--	46.	46.	46.	48.	82.	104.	76.	22.	63.	83
122010080320	LISBOA LUMIA	--	--	--	79.	78.	33.	--	--	--	--	--	--	16
122010090320	LISBOA LUMIA	--	--	--	--	--	--	--	--	63.	165.	59.	45.	28
125010040320	BARREIRO - A	--	--	--	--	52.	195.	117.	178.	213.	307.	--	--	51
125020010320	SINES - MONT	--	--	--	39.	--	--	--	37.	53.	62.	48.	53.	39

Monthly medians
Pollutant 4: Acid (column caption: see A1.1)

Station code	Town name	Values in measurement unit												cas no
		OCT 85	NOV	DEC	JAN 86	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
044020310411	LE HAVRE	21.	34	23	--	--	--	--	--	--	--	--	--	91
044020320411	LE HAVRE	40	44	64	--	--	--	--	--	--	--	--	--	92
044020430411	LE HAVRE	--	43	15	--	--	--	--	--	--	--	--	--	61
044031000411	NANTES	57.	65.	30	--	--	--	--	--	--	--	--	--	83
044031030411	NANTES	2	13	9.	--	--	--	--	--	--	--	--	--	91
044031040411	NANTES	0.	39.	16	--	--	--	--	--	--	--	--	--	87
044031060411	NANTES	3	16.	12.	--	--	--	--	--	--	--	--	--	78
044031130411	NANTES	0.	1.	0.	--	--	--	--	--	--	--	--	--	85
044031150411	NANTES	11.	4.	9	--	--	--	--	--	--	--	--	--	89
044040010411	ROUEN	15.	45.	25	--	--	--	--	--	--	--	--	--	85
044040040411	ROUEN	46.	66.	68	--	--	--	--	--	--	--	--	--	87
044040060411	ROUEN	7.	66.	30	--	--	--	--	--	--	--	--	--	85
044040070411	ROUEN	22.	63.	51	--	--	--	--	--	--	--	--	--	87
044040080411	ROUEN	58.	24.	10	--	--	--	--	--	--	--	--	--	87
044040110411	ROUEN	29.	89.	56	--	--	--	--	--	--	--	--	--	87
045020190411	FOS-BERRE	14.	23.	9.	--	--	--	--	--	--	--	--	--	78
045030170411	VIGNEUX DE B	1.	5	5.	--	--	--	--	--	--	--	--	--	88
053010010404	DUBLIN	32	46	41	43	67.	30	41	31.	25.	31	25.	66.	313
053010040404	DUBLIN	38.	42	41.	26.	47.	19.	28.	18.	30.	19.	36	43.	314
053010070404	DUBLIN	25.	49.	--	--	63.	47	40	58	60.	58.	65	49	274
053010100404	DUBLIN	20	33.	34.	34	46	31.	34	33.	39.	27	42.	42.	291
053011030404	DUBLIN	31	40.	39.	34	45	30.	27.	63.	59	46	47.	57	338
054010010405	CORK	16.	16.	25	11.	35.	32.	23.	29.	26.	34.	21.	25.	281
055010010406	GALWAY	9	10	6	3	11.	3.	6.	6	6	3.	6.	7	341
056990020405	BACKGROUND S	--	--	--	--	--	--	8	3	0	--	7	6	152
075013520401	LUXEMBOURG-V	17	29.	33.	--	45.	18	--	--	--	13.	14	16	181
075013530401	LUXEMBOURG-V	32.	26	25	38.	38.	33	--	--	--	29.	31	26	261
075023550401	ESCH-SUR-ALZ	17.	23	31.	--	17.	18	7	14	8	10.	--	7.	262
075033600401	STEINFORT	22	32	26	26	104.	15	9	9.	9	9.	9	14.	345
076990010401	SITE DE FOND	22	20	21	36	62	17	12	6	8	4	8	12	365
122010080409	LISBOA LUMIA	--	--	--	16.	13.	6.	14.	6.	4.	7.	1.	1.	139
122010090409	LISBOA LUMIA	--	--	--	16.	17.	24.	24.	22.	21.	28.	20.	16.	165
122010130409	LISBOA LUMIA	--	--	--	14.	10.	3.	3.	3.	11.	16.	16.	2.	131
124010010409	PORTO	--	--	--	41	33	38	53	25	48.	60.	39	32	248
124010080409	PORTO	--	--	--	25	17.	42	26.	6.	11.	23.	23.	17	202
124020050409	LECA DE PALM	--	--	--	45.	42.	29	42.	52	75	81.	--	52.	217

ANNUAL CHARACTERISTICS OF THE SERIES

October 1985 - September 1986

Annex 2: Global description

Column caption:

<u>Label</u>	<u>Explanation</u>
station code	PPCVVSSSPLTM: PP country code C town class code VV town code SSS station code PL pollutant code TM measurement technique code
month	number of months recorded for the year
BLA	number of values labelled as "BLANK"
REP	number of values labelled as "REP"
spa	number of values labelled as space
ze	number of null values
>9999	number of values higher than 9999 measurement units poll. 1-4: $\mu\text{g}/\text{m}^3$
cas	number of cases reported for the year (measured values)
min	minimum concentration for the year (measurement unit)
occ	occurrence of the minimum
med	median (measurement unit)
gap	number of gaps between the minimum and the median (for integer values)
dig	symbol for the number of missing digits into the yearly series. Example: a) 9: 9 digits are missing in the units b) 52: 5 digits are missing in the tens and 2 digits are missing in the units.
rej cde	reject code for the series.

<u>hierarchical condition</u>	<u>reject code</u>
no. of month < 12	1
no. of "BLANK" > 170	2
no. of val. with concentration > 9999 measurement units	3
no. of measured values < 240	4
no. of REP > 104	5
else	0

Global description
Pollutant 1: SO₂ (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PFCVVSSSFLTM	name	no	no	no	no	no	no	val	no	val	no	nn	cd	
023010030105	DORTMUND	3	0	0	1	0	0	92	13	1	55	9	0	1
023020030105	DUISBURG	3	2	0	1	0	0	90	9	1	60	24	0	1
026990010113	B.R. DEUTSCH	12	3	0	7	71	0	362	1	46	3	0	10	0
026990020113	B.R. DEUTSCH	12	0	0	7	121	0	365	1	36	3	0	0	0
026990030113	B.R. DEUTSCH	12	4	0	7	40	0	361	1	32	8	0	0	0
026990040113	B.R. DEUTSCH	12	2	0	7	3	0	363	1	21	8	0	0	0
026990050113	B.R. DEUTSCH	12	5	0	7	34	0	360	1	26	7	0	0	0
026990060113	B.R. DEUTSCH	12	1	0	7	67	0	364	1	46	4	0	0	0
026990070113	B.R. DEUTSCH	12	1	0	7	161	0	364	1	37	1	0	20	0
026990080113	B.R. DEUTSCH	12	35	0	7	89	0	330	1	40	4	0	10	0
026990090113	B.R. DEUTSCH	12	4	0	7	3	0	361	1	31	9	0	10	0
026990100113	B.R. DEUTSCH	12	13	0	7	8	0	352	1	9	17	0	0	0
026990120113	B.R. DEUTSCH	12	24	0	7	12	0	341	1	17	14	0	0	0
026990130113	B.R. DEUTSCH	12	4	0	7	128	0	361	1	22	4	0	0	0
026990140113	B.R. DEUTSCH	12	2	0	7	132	0	363	1	23	3	0	0	0
026990150113	B.R. DEUTSCH	12	5	0	7	14	0	360	1	16	12	0	0	0
026990160113	B.R. DEUTSCH	12	11	0	7	37	0	354	1	39	23	0	0	0
032011010127	KOBENHAVN	12	0	0	7	1	0	365	1	1	15	1	10	0
032011030127	KOBENHAVN	12	0	0	7	1	0	365	2	2	25	2	20	0
032011030128	KOBENHAVN	12	30	0	7	0	0	335	1	4	31	0	0	0
032012100127	KOBENHAVN	12	0	0	7	0	0	365	1	4	10	0	10	0
032012210127	KOBENHAVN	12	0	0	7	1	0	365	2	7	12	0	0	0
032013420127	KOBENHAVN	12	0	0	7	0	0	365	1	4	8	0	20	0
032013480127	KOBENHAVN	12	0	0	7	0	0	365	1	1	8	0	20	0
034018150127	AALBORG	12	0	0	7	0	0	365	2	7	12	0	30	0
034018150129	AALBORG	12	103	0	7	0	0	262	2	1	15	0	30	0
034029150127	ODENSE	12	0	0	7	1	0	365	1	3	11	0	20	0
034029150129	ODENSE	12	80	0	7	0	0	285	2	6	12	0	10	0
035015650127	ESBJERG	12	0	0	7	0	0	365	1	12	7	0	30	0
035015650129	ESBJERG	12	62	0	7	0	0	303	1	5	8	0	10	0
035025150127	FREDERICIA	6	16	0	4	0	0	166	2	1	15	0	20	1
035025150129	FREDERICIA	12	95	0	7	0	0	270	1	1	16	0	30	0
035033510127	NAESTVED	12	0	0	7	0	0	365	1	1	14	0	20	0
035033510129	NAESTVED	12	72	0	7	0	0	293	1	1	14	0	10	0
035046350127	RANDERS	6	0	0	2	6	0	184	1	9	5	0	80	1
035046350129	RANDERS	12	86	0	7	0	0	279	1	4	10	0	30	0
041010060135	PARIS	3	92	0	1	0	0	0	0	0	0	0	0	1
041010970135	PARIS	3	26	0	1	0	0	66	10	1	60	25	0	1
042010180137	LYON	3	52	0	1	3	0	40	1	1	9	0	50	1
042010210137	LYON	3	48	0	1	0	0	44	1	2	32	12	0	1
042020010136	MARSEILLE	3	21	0	1	0	0	71	4	1	45	15	0	1
042020140136	MARSEILLE	3	12	0	1	0	0	80	3	2	23	5	20	1
042020180136	MARSEILLE	3	22	0	1	0	0	70	11	2	39	7	10	1
042022040136	MARSEILLE	3	11	0	1	0	0	81	20	1	53	10	0	1
042022060136	MARSEILLE	3	20	0	1	0	0	72	7	1	45	17	0	1
043020040136	LILLE-ROUB.-	3	23	0	1	1	0	69	2	1	30	8	10	1
043020050136	LILLE-ROUB.-	3	31	0	1	0	0	61	3	1	44	19	0	1
043020070136	LILLE-ROUB.-	3	16	0	1	0	0	76	8	1	37	6	0	1
043020080136	LILLE-ROUB.-	3	19	0	1	1	0	73	4	1	33	8	20	1

Global description
Pollutant 1: SO₂ (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PPCVSSSPLTM	name	no	no	no	no	no	no	val	no	val	no	nn	cde	
043020100135	LILLE-ROUB.-	3	19	0	1	0	0	73	2	1	26	4	20	1
043020230136	LILLE-ROUB.-	3	19	0	1	0	0	73	5	1	25	4	10	1
044020470135	LE HAVRE	3	92	0	1	0	0	0	0	0	0	0	0	1
044040040135	ROUEN	3	67	0	1	0	0	25	11	1	85	62	20	1
045040050135	DUNKERQUE	3	10	0	1	10	0	82	1	6	21	5	10	1
045040070136	DUNKERQUE	3	22	0	1	13	0	70	1	1	14	3	20	1
045040110135	DUNKERQUE	3	13	0	1	1	0	79	1	2	17	2	40	1
045040130135	DUNKERQUE	3	15	0	1	48	0	77	1	6	0	0	51	1
061020070125	ROMA, ITALIA	1	0	0	0	0	0	31	26	16	26	0	88	1
061020080125	ROMA, ITALIA	1	15	0	0	0	0	16	26	7	52	0	56	1
061020090125	ROMA, ITALIA	1	0	0	0	0	0	31	26	22	26	0	77	1
062010010122	TORINO	3	22	0	1	0	0	70	42	3	96	37	0	1
062010020122	TORINO	2	1	0	1	0	0	60	62	3	107	27	0	1
064080010124	PESCARA	12	261	0	7	29	0	104	1	1	6	0	50	2
065090010124	PISTOIA	3	56	0	3	0	0	34	4	1	15	3	40	1
065140010124	VERCELLI	3	30	0	3	0	0	60	9	1	49	19	0	1
101010010138	MADRID	12	92	0	7	0	0	273	45	2	56	0	10	0
101010020138	MADRID	12	92	0	7	0	0	273	48	1	90	9	10	0
101010030138	MADRID	12	92	0	7	0	0	273	26	1	73	10	0	0
101010040138	MADRID	12	92	0	7	0	0	273	19	1	44	7	0	0
101010050138	MADRID	12	92	0	7	0	0	273	19	1	62	9	0	0
101010060138	MADRID	12	92	0	7	0	0	273	24	2	76	9	0	0
101020010138	BARCELONA	12	123	0	7	0	0	242	13	6	41	0	0	0
101020020138	BARCELONA	12	117	0	7	0	0	248	13	7	40	0	0	0
101020030138	BARCELONA	12	174	0	7	0	0	191	13	18	26	0	10	2
101020040138	BARCELONA	12	176	0	7	0	0	189	13	59	16	0	30	2
101020050138	BARCELONA	12	356	0	7	0	0	9	13	1	34	14	53	2
103010010139	SEVILLA	12	261	0	7	2	0	104	20	1	64	19	10	2
104010010140	BILBAO	10	124	0	4	1	0	182	3	1	43	7	0	1
104010020140	BILBAO	10	204	0	4	14	0	102	9	5	36	18	0	1
104010030140	BILBAO	10	128	0	4	3	0	178	1	2	43	5	0	1
104010040140	BILBAO	10	123	0	4	1	0	183	11	1	78	17	0	1
104020010138	SANTA CRUZ D	12	92	0	7	0	0	273	3	1	35	3	0	0
105010010139	PALENCIA	12	92	0	7	2	0	273	1	7	16	0	0	0
122010010134	LISBOA LUMIA	12	148	0	7	0	0	217	1	125	1	0	40	4
122010080134	LISBOA LUMIA	12	164	0	7	0	0	201	1	88	4	1	40	4
125010010141	BARREIRO - A	12	150	0	7	1	0	215	1	2	15	0	0	4
125010020141	BARREIRO - A	12	143	0	7	0	0	222	5	2	44	1	0	4
125010030141	BARREIRO - A	12	146	0	7	1	0	219	3	1	46	5	0	4
125020010141	SINES - MONT	12	113	0	7	67	0	252	1	27	3	0	60	0

Global description
Pollutant 2: Smoke (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PFCVSSSFLTM	name	no	no	no	no	no	no	val	no	val	no	mn	cd	
012010010203	BRUXELLES	12	0	0	7	0	0	365	3	1	20	0	10	0
012010080203	BRUXELLES	12	22	0	7	0	0	343	3	4	17	0	0	0
012010140203	BRUXELLES	12	66	0	7	0	0	299	4	10	13	0	40	0
012010170203	BRUXELLES	12	43	0	7	0	0	322	2	1	15	1	0	0
012010210203	BRUXELLES	12	0	0	7	0	0	365	3	1	21	0	0	0
012010220203	BRUXELLES	12	36	0	7	0	0	329	6	1	27	0	0	0
012010260203	BRUXELLES	12	0	0	7	0	0	365	4	1	17	0	0	0
013018010203	ANTWERPEN	12	37	0	7	0	0	328	1	4	13	0	20	0
013018090203	ANTWERPEN	12	8	0	7	0	0	357	1	1	30	6	0	0
013018120203	ANTWERPEN	12	7	0	7	0	0	358	1	9	12	0	20	0
013018130203	ANTWERPEN	12	9	0	7	0	0	356	1	1	13	0	0	0
013018180203	ANTWERPEN	12	2	0	7	0	0	363	1	4	13	2	10	0
013018260203	ANTWERPEN	12	15	0	7	0	0	350	1	11	11	1	10	0
014015010203	CHARLEROI	12	30	0	7	0	0	335	3	14	10	2	30	0
014015040203	CHARLEROI	12	21	0	7	0	0	344	3	8	14	4	20	0
014015050203	CHARLEROI	12	0	0	7	0	0	365	3	16	14	4	10	0
014015090203	CHARLEROI	12	49	0	7	0	0	316	4	8	14	4	40	0
014015130203	CHARLEROI	12	35	0	7	0	0	330	1	3	14	5	30	0
014015140203	CHARLEROI	12	14	0	7	0	0	351	3	3	16	5	20	0
014027010203	GENT	12	0	0	7	0	0	365	2	10	12	4	0	0
014027060203	GENT	12	29	0	7	0	0	336	2	79	5	1	51	0
014027070203	GENT	12	22	0	7	0	0	343	2	2	26	11	0	0
014027090203	GENT	12	25	0	7	0	0	340	2	25	10	3	30	0
014027120203	GENT	12	7	0	7	0	0	358	1	1	12	3	0	0
014027150203	GENT	12	0	0	7	0	0	365	2	24	10	3	10	0
014032020203	LIEGE	12	23	0	7	0	0	342	2	1	22	0	0	0
014032050203	LIEGE	12	109	0	7	0	0	256	3	8	23	1	0	0
014032080203	LIEGE	12	44	0	7	0	0	321	2	19	14	0	10	0
014032130203	LIEGE	12	148	0	7	0	0	217	1	7	12	0	30	4
014032180203	LIEGE	12	128	0	7	0	0	237	2	2	25	2	0	4
014032270203	LIEGE	12	115	0	7	0	0	250	1	6	10	0	30	0
015016050203	BRUGGE	12	22	0	7	0	0	343	3	48	10	0	40	0
015026030203	KORTRIJK	12	22	0	7	0	0	343	2	1	20	0	0	0
015033020203	LIBRAMONT	12	11	0	7	0	0	354	1	2	11	1	20	0
041010110210	PARIS	3	0	0	1	0	0	92	9	1	46	10	0	1
041010170210	PARIS	3	2	0	1	0	0	90	8	1	40	9	10	1
041010490210	PARIS	3	0	1	1	0	0	91	8	1	41	11	10	1
041010650210	PARIS	3	1	2	1	0	0	89	6	1	37	10	0	1
041010990210	PARIS	3	0	0	1	0	0	92	13	1	52	11	10	1
042020010210	MARSEILLE	3	3	0	1	0	0	89	9	1	44	16	1	1
042020140210	MARSEILLE	3	0	0	1	0	0	92	2	1	23	7	20	1
042020180210	MARSEILLE	3	27	0	1	0	0	65	13	2	47	17	0	1
042022040210	MARSEILLE	3	0	0	1	0	0	92	13	1	87	46	0	1
042022060210	MARSEILLE	3	2	0	1	0	0	90	4	1	30	9	0	1
044020470210	LE HAVRE	3	0	0	1	0	0	92	1	1	27	13	0	1
044031040210	NANTES	3	0	0	1	0	0	92	2	1	31	13	10	1
044031060210	NANTES	3	12	0	1	0	0	80	9	14	13	2	85	1
044040010210	ROUEN	3	32	0	1	0	0	60	2	1	16	7	20	1
044040040210	ROUEN	3	13	0	1	0	0	79	5	1	54	31	0	1

Global description
Pollutant 2: Smoke (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PECVVSSSPLTM	name	no	no	no	no	no	no	val	no	val	no	nn	cde	
044040060210	ROUEN	3	1	0	1	0	0	91	3	5	28	12	10	1
044040070210	ROUEN	3	10	0	1	0	0	82	1	1	26	11	10	1
044040110210	ROUEN	3	0	0	1	0	0	92	1	3	24	11	0	1
044042080210	ROUEN	3	10	0	1	0	0	82	1	13	9	3	62	1
053010010204	DUBLIN	12	2	0	7	0	0	363	4	3	44	8	0	0
053010040204	DUBLIN	12	45	0	7	0	0	320	5	2	35	4	0	0
053010070204	DUBLIN	12	89	0	7	0	0	276	1	1	19	3	0	0
053010100204	DUBLIN	12	17	0	7	0	0	348	1	2	19	3	0	0
053011030204	DUBLIN	12	3	0	7	0	0	362	1	1	28	4	0	0
054010010205	CORK	12	48	0	7	0	0	317	1	1	22	3	0	0
055010010206	GALWAY	12	14	0	7	9	0	351	1	25	13	3	0	0
056990020205	BACKGROUND S	12	182	0	7	0	0	183	1	91	2	0	61	2
075013520201	LUXEMBOURG-V	12	182	0	7	0	0	183	1	1	16	1	40	2
075013530201	LUXEMBOURG-V	12	100	0	7	0	0	265	2	20	9	0	50	0
075023550201	ESCH-SUR-ALZ	12	100	0	7	0	0	265	1	1	13	0	40	0
075033600201	STEINFORT	12	12	0	7	0	0	353	3	6	15	0	0	0
076990010201	SITE DE FOND	12	8	0	7	20	0	357	1	92	3	0	60	0
103010010224	SEVILLA	12	261	0	7	0	0	104	53	1	100	13	0	2
104010010224	BILBAO	10	124	0	4	1	0	182	2	1	30	6	20	1
104010020224	BILBAO	10	205	0	4	14	0	101	3	1	19	3	40	1
104010030224	BILBAO	10	128	0	4	3	0	178	1	1	18	5	50	1
104010040224	BILBAO	10	123	0	4	1	0	183	1	5	13	2	40	1
105010010224	PALENCIA	12	92	0	7	0	0	273	2	9	18	0	0	0
122010080225	LISBOA LUMIA	12	157	0	7	0	0	208	14	2	36	2	0	4
122010090225	LISBOA LUMIA	12	143	0	7	0	0	222	14	1	117	65	0	4
122010130225	LISBOA LUMIA	12	110	0	7	0	0	255	1	23	15	0	0	0
124010010225	PORTO	12	142	0	7	0	0	223	1	1	14	0	10	4
124010080225	PORTO	12	164	0	7	0	0	201	1	7	11	0	30	4
124020050225	LECA DE PALM	12	151	0	7	0	0	214	1	8	7	0	30	4

Global description
Pollutant 3: SPM (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PFCVSSSPLTM	name	no	no	no	no	no	no	val	no	val	no	nn	cdc	
023010030303	DORTMUND	3	56	0	1	0	0	36	20	1	67	31	0	1
023020030303	DUISBURG	3	56	0	1	0	0	36	21	1	77	37	10	1
026990010308	B.R. DEUTSCH	12	4	0	7	0	0	361	10	1	40	1	0	0
026990020308	B.R. DEUTSCH	12	14	0	7	0	0	351	3	1	34	0	0	0
026990030308	B.R. DEUTSCH	12	15	0	7	0	0	350	5	1	42	3	0	0
026990040308	B.R. DEUTSCH	12	3	0	7	0	0	362	3	1	31	3	0	0
026990050308	B.R. DEUTSCH	12	5	0	7	0	0	360	6	1	44	1	0	0
026990060308	B.R. DEUTSCH	12	1	0	7	0	0	364	3	1	27	0	0	0
026990070308	B.R. DEUTSCH	12	8	0	7	0	0	357	2	8	19	0	0	0
026990080308	B.R. DEUTSCH	12	15	0	7	0	0	350	5	1	29	1	0	0
026990090308	B.R. DEUTSCH	12	27	0	7	0	0	338	8	2	37	0	0	0
026990100308	B.R. DEUTSCH	12	15	0	7	0	0	350	6	2	36	2	0	0
026990120308	B.R. DEUTSCH	12	2	0	7	0	0	363	6	1	39	4	0	0
026990130308	B.R. DEUTSCH	12	11	0	7	0	0	354	5	1	28	0	0	0
026990140308	B.R. DEUTSCH	12	4	0	7	0	0	361	3	2	25	0	0	0
026990150308	B.R. DEUTSCH	12	30	0	7	0	0	335	4	1	27	0	0	0
026990160308	B.R. DEUTSCH	12	16	0	7	0	0	349	4	1	49	4	0	0
032011010347	KOBENHAVN	12	0	0	7	0	0	365	1	1	46	13	0	0
032011030347	KOBENHAVN	12	0	0	7	0	0	365	2	2	91	39	0	0
032012100347	KOBENHAVN	12	8	0	7	0	0	357	4	7	37	10	0	0
032012210347	KOBENHAVN	12	14	0	7	0	0	351	4	24	40	13	0	0
032013420347	KOBENHAVN	12	0	0	7	0	0	365	2	2	39	9	0	0
032013480347	KOBENHAVN	11	82	0	6	0	0	253	1	1	41	14	0	1
034018150347	AALBORG	12	0	0	7	0	0	365	2	2	68	27	0	0
034029150347	ODENSE	12	0	0	7	0	0	365	3	1	54	17	0	0
035015650347	ESBJERG	12	0	0	7	0	0	365	8	1	52	13	0	0
035025150347	FREDERICIA	6	16	0	4	0	0	166	1	1	60	29	0	1
035033510347	NAESTVED	12	0	0	7	0	0	365	4	13	70	19	0	0
035046350347	RANDERS	7	0	0	3	0	0	214	4	37	37	12	0	1
041010970318	PARIS	3	9	0	1	0	0	83	54	1	115	29	0	1
043020080318	LILLE-ROUB.-	3	52	0	1	0	0	40	10	1	24	2	40	1
043020230318	LILLE-ROUB.-	3	23	0	1	0	0	69	11	1	27	2	10	1
044020290318	LE HAVRE	3	8	0	1	0	0	84	1	3	11	1	50	1
044020470318	LE HAVRE	3	4	0	1	0	0	88	7	5	31	6	20	1
044040040318	ROUEN	3	5	0	1	0	0	87	16	3	38	4	10	1
045020190318	FOS-BERRE	3	92	0	1	0	0	0	0	0	0	0	0	1
045040050318	DUNKERQUE	3	14	0	1	0	0	78	11	2	39	8	0	1
045040070318	DUNKERQUE	3	11	0	1	0	0	81	13	1	35	8	0	1
045040110318	DUNKERQUE	3	16	0	1	0	0	76	20	1	43	8	0	1
045040130318	DUNKERQUE	3	20	0	1	0	0	72	5	1	19	1	0	1
062010010315	TORINO	3	0	0	1	7	0	92	59	1	175	90	0	1
062010020315	TORINO	3	0	0	1	0	0	92	57	2	134	46	0	1
064080010315	PESCARA	12	262	0	7	0	0	103	21	1	95	37	0	2
065090010315	PISTOIA	9	110	0	6	1	0	163	7	1	47	10	0	1
065140010315	VERCELLI	8	31	0	6	0	0	211	22	1	81	19	0	1
101010010349	MADRID	12	92	0	7	0	0	273	7	2	66	6	0	0
101010020349	MADRID	12	92	0	7	0	0	273	2	1	34	1	0	0
101010030349	MADRID	12	92	0	7	0	0	273	3	1	58	12	0	0
101010040349	MADRID	12	92	0	7	0	0	273	2	2	30	0	0	0

Global description
Pollutant 3: SPM (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PFCVVSSSPLTM	name	no	no	no	no	no	no	val	no	val	no	nn	cde	
101010050349	MADRID	12	92	0	7	0	0	273	1	1	54	2	0	0
101010060349	MADRID	12	92	0	7	0	0	273	5	1	44	1	0	0
101020010349	BARCELONA	12	125	0	7	0	0	240	58	2	142	27	0	0
101020020349	BARCELONA	12	134	0	7	0	0	231	31	1	180	70	0	4
101020030349	BARCELONA	12	150	0	7	0	0	215	35	1	142	50	0	4
104020010349	SANTA CRUZ D	12	92	0	7	0	0	273	6	2	85	28	0	0
122010010320	LISBOA LUMIA	12	282	0	7	0	0	83	15	1	55	13	0	2
122010080320	LISBOA LUMIA	12	349	0	7	0	0	16	33	1	78	34	22	2
122010090320	LISBOA LUMIA	12	337	0	7	0	0	28	24	1	68	34	21	2
125010040320	BARREIRO - A	12	314	0	7	0	0	51	17	1	178	105	0	2
125020010320	SINES - MONT	12	326	0	7	0	0	39	6	1	50	31	20	2

Global description
Pollutant 4: Acid (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze	>9999	cas	min	occ	med	gap	dig	rej
PPCVSSSFLTM	name	no	no	no	no	no	no	no	val	no	val	no	nn	cdc
012010010403	BRUXELLES	12	8	0	7	0	0	357	7	1	36	1	0	0
012010080403	BRUXELLES	12	29	0	7	0	0	336	5	1	33	3	0	0
012010140403	BRUXELLES	12	66	0	7	0	0	297	7	2	23	1	10	0
012010170403	BRUXELLES	12	43	0	7	0	0	322	2	1	29	2	0	0
012010210403	BRUXELLES	12	9	0	7	1	0	356	7	2	37	3	0	0
012010220403	BRUXELLES	12	43	0	7	0	0	322	2	1	37	7	0	0
012010260403	BRUXELLES	12	3	0	7	1	0	362	8	1	36	2	0	0
013018010403	ANTWERPEN	12	32	0	7	0	0	333	14	1	52	3	0	0
013018090403	ANTWERPEN	12	8	0	7	0	0	357	16	1	62	5	0	0
013018120403	ANTWERPEN	12	11	0	7	1	0	354	5	1	39	4	0	0
013018130403	ANTWERPEN	12	9	0	7	1	0	356	11	1	49	3	0	0
013018180403	ANTWERPEN	12	4	0	7	0	0	361	10	1	57	5	0	0
013018280403	ANTWERPEN	12	16	0	7	0	0	349	10	1	87	17	0	0
014015010403	CHARLEROI	12	36	0	7	3	0	329	2	4	23	8	10	0
014015040403	CHARLEROI	12	27	0	7	5	0	338	2	7	16	5	0	0
014015050403	CHARLEROI	12	2	0	7	2	0	363	2	2	26	9	0	0
014015090403	CHARLEROI	12	50	0	7	0	0	315	2	1	33	12	0	0
014015130403	CHARLEROI	12	36	0	7	0	0	329	3	4	28	10	0	0
014015140403	CHARLEROI	12	15	0	7	0	0	350	3	3	33	12	0	0
014027010403	GENT	12	0	0	7	1	0	365	4	2	45	21	0	0
014027060403	GENT	12	31	0	7	1	0	334	6	1	28	9	0	0
014027070403	GENT	12	32	0	7	0	0	333	8	3	38	14	0	0
014027090403	GENT	12	33	0	7	0	0	332	15	1	49	16	0	0
014027120403	GENT	12	15	0	7	1	0	350	4	1	41	18	0	0
014027150403	GENT	12	18	0	7	1	0	347	4	4	34	14	0	0
014032020403	LIEGE	12	24	0	7	0	0	341	4	1	60	17	0	0
014032050403	LIEGE	12	110	0	7	1	0	255	18	1	65	8	0	0
014032080403	LIEGE	12	53	0	7	0	0	312	6	2	31	1	0	0
014032130403	LIEGE	12	148	0	7	0	0	217	4	1	34	6	0	4
014032180403	LIEGE	12	140	0	7	0	0	225	2	4	26	1	0	4
014032270403	LIEGE	12	114	0	7	0	0	251	8	1	39	2	0	0
015016050403	BRUGGE	12	22	0	7	1	0	343	2	8	15	2	10	0
015026030403	KORTRIJK	12	79	0	7	3	0	286	2	10	30	1	0	0
015033020403	LIBRAMONT	12	11	0	7	0	0	354	4	1	26	3	10	0
041010110411	PARIS	3	0	1	1	3	0	91	4	1	47	19	0	1
041010170411	PARIS	3	2	0	1	0	0	90	8	1	73	34	0	1
041010490411	PARIS	3	0	1	1	1	0	91	6	1	54	19	0	1
041010650411	PARIS	3	1	2	1	0	0	89	6	1	54	19	0	1
041010990411	PARIS	3	0	0	1	2	0	92	5	1	42	12	0	1
042010010411	LYON	3	10	0	1	0	0	82	36	1	103	39	0	1
042010080411	LYON	3	25	0	1	0	0	67	27	1	69	19	0	1
042010100411	LYON	3	12	0	1	0	0	80	19	1	52	8	10	1
042010160411	LYON	3	16	0	1	0	0	76	17	1	54	15	0	1
042020010408	MARSEILLE	3	10	0	1	0	0	82	11	1	41	9	0	1
043020050411	LILLE-ROUB.-	3	53	0	1	0	0	39	6	1	31	10	10	1
043020100411	LILLE-ROUB.-	3	52	0	1	12	0	40	2	1	9	4	40	1
044020120411	LE HAVRE	3	0	0	1	22	0	92	1	12	7	1	30	1
044020210411	LE HAVRE	3	3	0	1	9	0	89	1	3	40	15	0	1
044020290411	LE HAVRE	3	10	0	1	20	0	82	1	1	17	4	10	1

Global description
Pollutant 4: Acid (column caption: see A2.1)

Station code	Town	month	BLA	REP	spa	ze >9999	cas	min	occ	med	gap	dig	rej	
PFCVVSSSPLTM	name	no	no	no	no	no	no	val	no	val	no	nn	cde	
044020310411	LE HAVRE	3	1	0	1	1	0	91	1	3	26	4	10	1
044020320411	LE HAVRE	3	0	0	1	0	0	92	8	3	45	8	0	1
044020430411	LE HAVRE	3	31	0	1	0	0	61	3	1	22	6	0	1
044031000411	NANTES	3	9	0	1	1	0	83	2	1	49	18	0	1
044031030411	NANTES	3	1	0	1	27	0	91	1	7	10	1	10	1
044031040411	NANTES	3	5	0	1	31	0	87	1	2	9	2	10	1
044031060411	NANTES	3	14	0	1	12	0	78	1	6	10	0	60	1
044031130411	NANTES	3	7	0	1	53	0	85	1	2	0	0	40	1
044031150411	NANTES	3	3	0	1	22	0	89	1	2	10	1	10	1
044040010411	ROUEN	3	7	0	1	0	0	85	2	2	28	6	10	1
044040040411	ROUEN	3	5	0	1	1	0	87	10	1	60	24	0	1
044040060411	ROUEN	3	7	0	1	4	0	85	1	1	30	9	0	1
044040070411	ROUEN	3	5	0	1	0	0	87	2	1	34	12	0	1
044040080411	ROUEN	3	5	0	1	1	0	87	3	2	26	4	0	1
044040110411	ROUEN	3	5	0	1	3	0	87	2	3	60	28	0	1
045020190411	FOS-BERRE	3	14	0	1	5	0	78	1	1	13	0	50	1
045030170411	VIGNEUX DE B	3	4	0	1	21	0	88	1	9	3	0	50	1
053010010404	DUBLIN	12	52	0	7	0	0	313	2	1	37	8	0	0
053010040404	DUBLIN	12	51	0	7	0	0	314	12	8	31	6	10	0
053010070404	DUBLIN	12	91	0	7	0	0	274	6	2	53	17	0	0
053010100404	DUBLIN	12	74	0	7	0	0	291	5	1	33	10	0	0
053011030404	DUBLIN	12	27	0	7	0	0	338	7	4	40	15	0	0
054010010405	CORK	12	84	0	7	1	0	281	2	1	26	0	20	0
055010010406	GALWAY	12	24	0	7	0	0	341	3	120	6	1	61	0
056990020405	BACKGROUND S	12	213	0	7	45	0	152	2	4	4	0	70	2
075013520401	LUXEMBOURG-V	12	184	0	7	0	0	181	3	5	18	1	30	2
075013530401	LUXEMBOURG-V	12	104	0	7	0	0	261	2	2	31	3	0	0
075023550401	ESCH-SUR-ALZ	12	103	0	7	0	0	262	1	3	15	1	50	0
075033600401	STEINFORT	12	20	0	7	0	0	345	1	2	15	0	0	0
076990010401	SITE DE FOND	12	0	0	7	30	0	365	2	20	16	0	0	0
122010080409	LISBOA LUMIA	12	226	0	7	0	0	139	1	41	7	2	50	2
122010090409	LISBOA LUMIA	12	200	0	7	0	0	165	1	12	22	6	20	2
122010130409	LISBOA LUMIA	12	234	0	7	0	0	131	1	22	9	0	30	2
124010010409	PORTO	12	117	0	7	3	0	248	5	2	38	4	0	0
124010080409	PORTO	12	163	0	7	11	0	202	1	3	24	0	10	4
124020050409	LECA DE PALM	12	148	0	7	1	0	217	8	1	52	7	0	4

ANNUAL CHARACTERISTICS OF THE SERIES

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Annex 3: Yearly percentiles 25,50,75,95,98
computed for the selected series

Column caption:

<u>Label</u>	<u>Explanation</u>
station code	PPCVVSSSPLTM: PP country code C town class code VV town code SSS station code PL pollutant code TM measurement technique code
cas	number of cases reported for the year (measured values)
min	minimum concentration for the year ($\mu\text{g}/\text{m}^3$)
max	maximum concentration for the year ($\mu\text{g}/\text{m}^3$)
25,50,75,95,98	yearly percentiles ($\mu\text{g}/\text{m}^3$)

Results of this annex are graphically presented in :

Fig. II.2.1 to II.2.4 ; pages 47 - 50
 Fig. II.2.5 to II.2.8 ; pages 51 - 54
 Fig. II.2.9 to II.2.12 ; pages 55 - 58

Yearly percentiles
Pollutant 1: SO₂ (column caption: see A3.1)

Station code	Town	cas	min	max	25	50	75	95	98
PPCVSSSPLTM	name	no	val	val	val	val	val	val	val
026990010113	B.R. DEUTSCH	362	1	91	1	3	7	21	37
026990020113	B.R. DEUTSCH	365	1	283	1	3	20	94	180
026990030113	B.R. DEUTSCH	361	1	236	2	8	28	114	155
026990040113	B.R. DEUTSCH	363	1	169	3	8	19	69	105
026990050113	B.R. DEUTSCH	360	1	239	3	7	20	68	139
026990060113	B.R. DEUTSCH	364	1	171	1	4	14	51	76
026990070113	B.R. DEUTSCH	364	1	146	1	1	5	29	62
026990080113	B.R. DEUTSCH	330	1	127	1	4	12	35	68
026990090113	B.R. DEUTSCH	361	1	255	4	9	24	86	126
026990100113	B.R. DEUTSCH	352	1	262	7	17	37	123	170
026990120113	B.R. DEUTSCH	341	1	202	5	14	34	105	157
026990130113	B.R. DEUTSCH	361	1	199	1	4	16	95	160
026990140113	B.R. DEUTSCH	363	1	182	1	3	10	75	116
026990150113	B.R. DEUTSCH	360	1	315	5	12	30	147	210
026990160113	B.R. DEUTSCH	354	1	1000	3	23	87	288	408
032011010127	KOBENHAVN	365	1	115	8	15	24	49	58
032011030127	KOBENHAVN	365	2	139	18	25	34	55	66
032011030128	KOBENHAVN	335	1	156	19	31	45	76	91
032012100127	KOBENHAVN	365	1	116	6	10	19	36	48
032012210127	KOBENHAVN	365	2	127	6	12	26	61	83
032013420127	KOBENHAVN	365	1	106	5	8	14	36	51
032013480127	KOBENHAVN	365	1	133	4	8	21	51	64
034018150127	AALBORG	365	2	69	6	12	22	39	55
034018150129	AALBORG	262	2	65	9	15	26	47	56
034029150127	ODENSE	365	1	112	7	11	19	45	63
034029150129	ODENSE	285	2	83	7	12	20	41	57
035015650127	ESBJERG	365	1	72	5	7	11	25	45
035015650129	ESBJERG	303	1	93	5	8	12	29	52
035025150129	FREDERICIA	270	1	109	11	16	23	43	53
035033510127	NAESTVED	365	1	147	8	14	22	42	55
035033510129	NAESTVED	293	1	157	8	14	23	46	64
035046350129	RANDERS	279	1	76	6	10	15	31	44
101010010138	MADRID	273	45	160	52	56	68	106	124
101010020138	MADRID	273	48	410	80	90	99	150	247
101010030138	MADRID	273	26	144	61	73	83	113	130
101010040138	MADRID	273	19	135	40	44	59	85	100
101010050138	MADRID	273	19	441	55	62	73	114	218
101010060138	MADRID	273	24	230	52	76	86	149	176
101020010138	BARCELONA	242	13	196	26	41	64	128	147
101020020138	BARCELONA	248	13	138	27	40	59	105	114
104020010138	SANTA CRUZ D	273	3	316	21	35	64	119	174
105010010139	PALENCIA	273	1	206	8	16	30	79	127
125020010141	SINES - MONT	252	1	39	1	3	8	19	23

Yearly percentiles
Pollutant 2: Smoke (column caption: see A3.1)

Station code	Town	cas	min	max	25	50	75	95	98
PFQVSSSPLM	name	no	val	val	val	val	val	val	val
012010010203	BRUXELLES	365	3	129	16	20	30	59	74
012010080203	BRUXELLES	343	3	151	11	17	29	76	111
012010140203	BRUXELLES	299	4	58	8	13	19	34	45
012010170203	BRUXELLES	322	2	98	10	15	21	48	64
012010210203	BRUXELLES	365	3	160	15	21	33	66	92
012010220203	BRUXELLES	329	6	163	17	27	41	79	109
012010260203	BRUXELLES	365	4	122	12	17	26	53	68
013018010203	ANTWERPEN	328	1	85	9	13	23	46	55
013018090203	ANTWERPEN	357	1	111	20	30	42	61	78
013018120203	ANTWERPEN	358	1	76	7	12	23	50	61
013018130203	ANTWERPEN	356	1	90	8	13	25	51	68
013018180203	ANTWERPEN	363	1	83	9	13	23	52	63
013018260203	ANTWERPEN	350	1	89	6	11	22	50	70
014015010203	CHARLEROI	335	3	81	7	10	17	32	39
014015040203	CHARLEROI	344	3	77	9	14	21	37	51
014015050203	CHARLEROI	365	3	94	9	14	19	37	48
014015090203	CHARLEROI	316	4	51	10	14	21	37	42
014015130203	CHARLEROI	330	1	65	9	14	19	37	48
014015140203	CHARLEROI	351	3	81	10	16	21	34	42
014027010203	GENT	365	2	150	8	12	26	62	83
014027060203	GENT	336	2	42	3	5	8	18	22
014027070203	GENT	343	2	194	14	26	42	97	136
014027090203	GENT	340	2	87	5	10	18	42	51
014027120203	GENT	358	1	136	7	12	24	62	74
014027150203	GENT	365	2	87	7	10	16	36	48
014032020203	LIEGE	342	2	196	15	22	39	69	92
014032050203	LIEGE	256	3	208	15	23	39	76	103
014032080203	LIEGE	321	2	90	7	14	23	52	66
014032270203	LIEGE	250	1	64	6	10	20	38	44
015016050203	BRUGGE	343	3	117	5	10	18	36	42
015026030203	KORTRIJK	343	2	126	12	20	33	65	84
015033020203	LIBRAMONT	354	1	81	7	11	17	31	42
053010010204	DUBLIN	363	4	381	27	44	71	160	221
053010040204	DUBLIN	320	5	594	21	35	66	174	276
053010070204	DUBLIN	276	1	288	12	19	39	91	134
053010100204	DUBLIN	348	1	135	9	19	36	89	111
053011030204	DUBLIN	362	1	214	15	28	51	99	156
054010010205	CORK	317	1	351	12	22	35	83	120
055010010206	GALWAY	351	1	112	5	13	29	69	89
075013530201	LUXEMBOURG-V	265	2	40	5	9	17	31	34
075023550201	ESCH-SUR-ALZ	265	1	44	9	13	21	36	40
075033600201	STEINFORT	353	3	99	8	15	26	59	73
076990010201	SITE DE FOND	357	1	49	1	3	7	15	21
105010010224	PALENCIA	273	2	107	10	18	30	62	91
122010130225	LISBOA LUMIA	255	1	177	8	15	26	59	87

Yearly percentiles
Pollutant 3: SPM (column caption: see A3.1)

Station code	Town	cas	min	max	25	50	75	95	98
PPCVVSSSPLTM	name	no	val	val	val	val	val	val	val
026990010308	B.R. DEUTSCH	361	10	182	28	40	56	104	130
026990020308	B.R. DEUTSCH	351	3	330	21	34	59	107	129
026990030308	B.R. DEUTSCH	350	5	159	26	42	74	121	142
026990040308	B.R. DEUTSCH	362	3	148	21	31	51	89	114
026990050308	B.R. DEUTSCH	360	6	205	25	44	67	124	146
026990060308	B.R. DEUTSCH	364	3	139	16	27	41	76	90
026990070308	B.R. DEUTSCH	357	2	104	9	19	31	57	71
026990080308	B.R. DEUTSCH	350	5	150	17	29	43	81	113
026990090308	B.R. DEUTSCH	338	8	270	23	37	59	123	157
026990100308	B.R. DEUTSCH	350	6	130	25	36	56	98	118
026990120308	B.R. DEUTSCH	363	6	150	27	39	63	104	124
026990130308	B.R. DEUTSCH	354	5	174	18	28	50	97	125
026990140308	B.R. DEUTSCH	361	3	168	14	25	41	89	113
026990150308	B.R. DEUTSCH	335	4	130	17	27	46	84	97
026990160308	B.R. DEUTSCH	349	4	180	28	49	79	128	149
032011010347	KOBENHAVN	365	1	203	35	46	64	106	135
032011030347	KOBENHAVN	365	2	369	70	91	116	192	242
032012100347	KOBENHAVN	357	4	174	29	37	55	87	123
032012210347	KOBENHAVN	351	4	193	29	40	60	95	114
032013420347	KOBENHAVN	365	2	163	29	39	55	87	109
034018150347	AALBORG	365	2	383	43	68	104	211	264
034029150347	ODENSE	365	3	301	41	54	76	132	172
035015650347	ESBJERG	365	8	209	40	52	65	117	146
035033510347	NAESTVED	365	4	253	48	70	94	154	183
101010010349	MADRID	273	7	190	39	66	95	139	152
101010020349	MADRID	273	2	191	23	34	45	75	107
101010030349	MADRID	273	3	224	40	58	74	117	141
101010040349	MADRID	273	2	201	21	30	41	70	106
101010050349	MADRID	273	1	327	32	54	70	95	155
101010060349	MADRID	273	5	201	27	44	68	111	137
101020010349	BARCELONA	240	58	478	103	142	169	240	272
104020010349	SANTA CRUZ D	273	6	362	53	85	122	191	203

Yearly percentiles
Pollutant 4: Acid (column caption: see A3.1)

Station code	Town	cas	min	max	25	50	75	95	98
PFQVSSSPLTM	name	no	val	val	val	val	val	val	val
012010010403	BRUXELLES	357	7	150	24	36	51	79	95
012010080403	BRUXELLES	336	5	120	23	33	43	75	91
012010140403	BRUXELLES	297	7	86	18	23	30	52	66
012010170403	BRUXELLES	322	2	111	19	29	42	68	85
012010210403	BRUXELLES	356	7	151	26	37	52	93	119
012010220403	BRUXELLES	322	2	189	26	37	57	100	116
012010260403	BRUXELLES	362	8	119	24	36	46	71	85
013018010403	ANTWERPEN	333	14	277	36	52	80	149	184
013018090403	ANTWERPEN	357	16	231	50	62	88	148	182
013018120403	ANTWERPEN	354	5	241	28	39	63	123	173
013018130403	ANTWERPEN	356	11	223	38	49	74	150	186
013018180403	ANTWERPEN	361	10	196	41	57	78	128	164
013018260403	ANTWERPEN	349	10	629	56	87	142	298	391
014015010403	CHARLEROI	329	2	155	13	23	38	71	87
014015040403	CHARLEROI	338	2	170	6	16	31	92	129
014015050403	CHARLEROI	363	2	173	13	26	45	92	125
014015090403	CHARLEROI	315	2	211	18	33	49	107	125
014015130403	CHARLEROI	329	3	195	16	28	45	92	104
014015140403	CHARLEROI	350	3	155	25	33	51	99	119
014027010403	GENT	365	4	255	32	45	64	137	182
014027060403	GENT	334	6	114	21	28	39	64	83
014027070403	GENT	333	8	236	24	38	64	145	167
014027090403	GENT	332	15	158	38	49	68	107	122
014027120403	GENT	350	4	263	28	41	68	131	173
014027150403	GENT	347	4	197	23	34	53	105	141
014032020403	LIEGE	341	4	272	45	60	81	133	168
014032050403	LIEGE	255	18	279	46	65	88	153	178
014032080403	LIEGE	312	6	180	23	31	45	80	127
014032270403	LIEGE	251	8	187	28	39	58	86	98
015018050403	BRUGGE	343	2	158	9	15	24	56	81
015028030403	KORTRIJK	286	2	198	14	30	47	143	162
015033020403	LIBRAMONT	354	4	88	19	26	37	82	74
053010010404	DUBLIN	313	2	116	27	37	51	82	103
053010040404	DUBLIN	314	12	133	23	31	43	71	80
053010070404	DUBLIN	274	6	137	38	53	65	97	113
053010100404	DUBLIN	291	5	98	28	33	45	60	72
053011030404	DUBLIN	338	7	148	32	40	59	82	103
054010010405	CORK	281	2	81	16	26	34	48	56
055010010406	GALWAY	341	3	26	3	6	10	16	19
075013530401	LUXEMBOURG-V	261	2	149	22	31	44	71	102
075023550401	ESCH-SUR-ALZ	262	1	44	9	15	21	35	39
075033600401	STEINFORT	345	1	231	9	15	27	104	133
078990010401	SITE DE FOND	365	2	149	7	16	27	75	105
124010010409	PORTO	248	5	121	27	38	54	73	83

ANNUAL CHARACTERISTICS OF THE SERIES

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Annex 4: Annual descriptive parameters

Column caption:

<u>Label</u>	<u>Explanation</u>
station code	PPCVVSSSPLTM: PP country code C town class code VV town code SSS station code PL pollutant code TM measurement technique code
cas	number of cases reported for the year (measured values)
mean	mean ($\mu\text{g}/\text{m}^3$)
std.d	standard deviation ($\mu\text{g}/\text{m}^3$)
V	variation coefficient
skew	skewness
D	shape estimator of the frequency distribution
kurt	kurtosis

Results of this annex are presented in the form of histograms in :

Fig. II.3.1 to II.3.7 ; pages 60 - 66

Annual descriptive parameters
Pollutant 1: SO₂ (column caption: see A4.1)

Station code	Town	cas	mean	std.d	V	skew	D	kurt
PPCVVSSSPLTM	name	no	val	val				
026990010113	B.R. DEUTSCH	362	6	10.1	1.62	4.58	0.50	26.6
026990020113	B.R. DEUTSCH	365	20	41.2	2.02	3.66	0.26	15.7
026990030113	B.R. DEUTSCH	361	25	38.4	1.57	2.51	0.29	6.9
026990040113	B.R. DEUTSCH	363	18	24.5	1.40	2.80	0.40	9.2
026990050113	B.R. DEUTSCH	360	19	31.6	1.69	3.66	0.37	16.1
026990060113	B.R. DEUTSCH	364	12	20.2	1.62	3.32	0.37	15.3
026990070113	B.R. DEUTSCH	364	7	15.4	2.28	5.09	0.27	32.5
026990080113	B.R. DEUTSCH	330	10	15.9	1.68	3.62	0.37	16.6
026990090113	B.R. DEUTSCH	361	21	32.8	1.58	3.57	0.41	15.7
026990100113	B.R. DEUTSCH	352	31	40.3	1.30	2.70	0.44	8.2
026990120113	B.R. DEUTSCH	341	29	37.4	1.31	2.25	0.36	5.2
026990130113	B.R. DEUTSCH	361	18	35.1	1.97	3.21	0.24	10.8
026990140113	B.R. DEUTSCH	363	14	28.5	2.09	3.57	0.23	14.1
026990150113	B.R. DEUTSCH	360	34	52.3	1.55	2.53	0.30	6.8
026990160113	B.R. DEUTSCH	354	70	112.5	1.60	3.10	0.35	15.1
032011010127	KOBENHAVN	365	19	14.9	0.79	2.02	0.70	6.3
032011030127	KOBENHAVN	365	27	15.3	0.56	1.83	0.99	8.1
032011030128	KOBENHAVN	335	35	22.3	0.63	1.27	0.59	2.9
032012100127	KOBENHAVN	365	14	13.7	0.96	3.08	0.81	14.9
032012210127	KOBENHAVN	365	20	20.1	1.03	2.06	0.50	4.9
032013420127	KOBENHAVN	365	12	12.2	0.99	3.03	0.77	13.5
032013480127	KOBENHAVN	365	15	17.3	1.11	2.43	0.51	8.6
034018150127	AALBORG	365	16	12.5	0.80	1.42	0.49	2.1
034018150129	AALBORG	262	19	13.3	0.70	1.23	0.51	1.1
034028150127	ODENSE	365	18	14.4	0.93	2.63	0.74	9.6
034028150129	ODENSE	285	15	12.9	0.84	2.33	0.75	7.1
035015650127	ESBJERG	365	10	9.2	0.96	3.44	0.91	15.6
035015650129	ESBJERG	303	11	11.5	1.03	3.69	0.88	17.9
035025150129	FREDERICIA	270	19	12.6	0.66	2.41	1.07	10.3
035033510127	NAESTVED	365	18	15.2	0.85	3.36	1.06	19.4
035033510129	NAESTVED	293	18	16.9	0.92	3.41	0.97	18.9
035046350129	RANDERS	279	12	10.0	0.84	2.61	0.84	9.6
101010010138	MADRID	273	63	19.1	0.30	2.58	2.76	7.7
101010020138	MADRID	273	97	41.1	0.42	4.52	3.36	26.0
101010030138	MADRID	273	74	20.5	0.28	0.67	0.78	1.0
101010040138	MADRID	273	51	18.6	0.36	1.56	1.38	2.9
101010050138	MADRID	273	70	43.7	0.62	4.88	2.31	30.5
101010060138	MADRID	273	77	34.2	0.45	1.45	1.02	2.9
101020010138	BARCELONA	242	52	35.4	0.69	1.55	0.65	2.4
101020020138	BARCELONA	248	47	25.6	0.55	1.18	0.65	1.2
104020010138	SANTA CRUZ D	273	48	43.3	0.90	2.38	0.69	8.4
105010010139	PALENCIA	273	25	29.1	1.14	2.60	0.53	8.6
125020010141	SINES - MONT	252	8	6.1	1.11	2.03	0.43	5.2

Annual descriptive parameters
Pollutant 2: Smoke (column caption: see A4.1)

Station code	Town	cas	mean	std.d	V	skew	D	kurt
PPCVVSSSPLTM	name	no	val	val				
012010010203	BRUXELLES	365	25	16.3	0.65	2.31	1.03	7.8
012010080203	BRUXELLES	343	25	24.4	0.96	2.59	0.69	7.6
012010140203	BRUXELLES	299	15	9.8	0.64	1.64	0.75	3.2
012010170203	BRUXELLES	322	18	13.8	0.75	2.48	0.92	7.7
012010210203	BRUXELLES	365	27	19.2	0.71	2.44	0.97	8.9
012010220203	BRUXELLES	329	33	24.6	0.74	2.28	0.87	6.7
012010260203	BRUXELLES	365	21	16.0	0.74	2.70	1.02	10.0
013018010203	ANTWERPEN	328	18	13.6	0.77	1.63	0.59	2.9
013018090203	ANTWERPEN	357	33	17.2	0.52	1.07	0.63	1.5
013018120203	ANTWERPEN	358	17	15.1	0.87	1.53	0.47	2.0
013018130203	ANTWERPEN	356	18	15.4	0.84	1.91	0.62	4.0
013018180203	ANTWERPEN	363	18	14.9	0.82	1.90	0.63	4.0
013018260203	ANTWERPEN	350	17	16.5	0.98	1.89	0.49	3.6
014015010203	CHARLEROI	335	14	10.0	0.72	2.08	0.82	7.4
014015040203	CHARLEROI	344	16	11.5	0.71	1.79	0.72	4.4
014015050203	CHARLEROI	365	16	11.4	0.74	2.86	1.10	12.3
014015090203	CHARLEROI	316	16	8.6	0.53	1.39	0.80	2.4
014015130203	CHARLEROI	330	16	10.6	0.68	1.59	0.67	3.3
014015140203	CHARLEROI	351	17	9.8	0.58	1.96	1.02	7.1
014027010203	GENT	365	20	20.8	1.02	2.51	0.61	8.5
014027060203	GENT	336	7	6.1	0.82	2.13	0.61	5.7
014027070203	GENT	343	35	31.4	0.89	2.00	0.59	4.7
014027090203	GENT	340	14	12.9	0.91	2.14	0.61	6.2
014027120203	GENT	358	19	19.1	1.03	2.24	0.54	6.6
014027150203	GENT	365	13	11.8	0.89	2.40	0.71	7.9
014032020203	LIEGE	342	30	23.0	0.77	2.38	0.86	9.8
014032050203	LIEGE	256	31	26.1	0.84	2.54	0.81	10.1
014032080203	LIEGE	321	18	15.8	0.88	1.85	0.55	4.1
014032270203	LIEGE	250	14	11.5	0.81	1.49	0.50	2.6
015016050203	BRUGGE	343	14	12.2	0.90	2.79	0.82	15.3
015026030203	KORTRIJK	343	26	20.3	0.79	1.93	0.68	5.0
015033020203	LIBRAMONT	354	13	9.7	0.75	2.71	1.01	11.8
053010010204	DUBLIN	363	59	52.1	0.89	2.50	0.74	8.2
053010040204	DUBLIN	320	58	67.6	1.17	3.49	0.68	16.8
053010070204	DUBLIN	276	32	36.6	1.14	3.39	0.69	16.5
053010100204	DUBLIN	348	28	26.9	0.95	1.74	0.47	2.7
053011030204	DUBLIN	362	38	34.9	0.91	2.15	0.62	5.9
054010010205	CORK	317	29	32.0	1.09	4.64	1.01	34.9
055010010206	GALWAY	351	21	22.7	1.10	1.75	0.38	2.8
075013530201	LUXEMBOURG-V	265	12	9.1	0.76	1.01	0.37	0.1
075023550201	ESCH-SUR-ALZ	265	15	9.6	0.62	1.05	0.50	1.0
075033600201	STEINFORT	353	21	17.4	0.85	1.87	0.60	3.8
076990010201	SITE DE FOND	357	5	6.1	1.21	3.54	0.65	18.4
105010010224	PALENCIA	273	23	19.1	0.82	1.85	0.62	3.9
122010130225	LISBOA LUMIA	255	20	22.1	1.08	3.38	0.75	16.0

Annual descriptive parameters
Pollutant 3: SPM (column caption: see A4.1)

Station code	Town	cas	mean	std.d	V	skew	D	kurt
PCVVSSSPLTM	name	no	val	val				
026990010308	B.R. DEUTSCH	361	47	27.6	0.59	1.79	0.91	4.0
026990020308	B.R. DEUTSCH	351	44	33.8	0.76	2.56	0.94	14.2
026990030308	B.R. DEUTSCH	350	52	34.6	0.66	1.02	0.45	0.4
026990040308	B.R. DEUTSCH	362	39	26.1	0.67	1.45	0.63	2.3
026990050308	B.R. DEUTSCH	360	51	34.2	0.66	1.42	0.62	2.4
026990060308	B.R. DEUTSCH	364	31	21.2	0.68	1.75	0.75	4.6
026990070308	B.R. DEUTSCH	357	23	17.3	0.77	1.49	0.54	2.9
026990080308	B.R. DEUTSCH	350	35	24.4	0.70	1.92	0.79	4.8
026990090308	B.R. DEUTSCH	338	48	37.4	0.78	2.30	0.82	7.7
026990100308	B.R. DEUTSCH	350	44	25.9	0.59	1.19	0.60	1.1
026990120308	B.R. DEUTSCH	363	48	29.1	0.61	1.14	0.56	0.8
026990130308	B.R. DEUTSCH	354	38	28.7	0.76	1.73	0.64	3.5
026990140308	B.R. DEUTSCH	361	32	26.7	0.82	2.01	0.66	5.0
026990150308	B.R. DEUTSCH	335	35	23.5	0.67	1.25	0.54	1.2
026990160308	B.R. DEUTSCH	349	58	37.1	0.64	0.90	0.42	0.3
032011010347	KOBENHAVN	365	52	28.8	0.55	1.58	0.88	4.2
032011030347	KOBENHAVN	365	98	51.9	0.53	1.45	0.83	4.7
032012100347	KOBENHAVN	357	45	24.3	0.54	1.97	1.10	6.1
032012210347	KOBENHAVN	351	46	27.7	0.60	1.39	0.69	3.5
032013420347	KOBENHAVN	365	45	25.4	0.57	1.53	0.81	4.2
034018150347	AALBORG	365	81	63.7	0.79	1.52	0.54	3.3
034029150347	ODENSE	365	63	35.1	0.58	2.14	1.17	7.4
035015650347	ESBJERG	365	57	27.5	0.48	2.22	1.43	7.1
035033510347	NAESTVED	365	76	40.1	0.53	0.98	0.57	1.4
101010010349	MADRID	273	70	37.1	0.53	0.55	0.31	-0.2
101010020349	MADRID	273	37	24.4	0.65	2.49	1.11	10.5
101010030349	MADRID	273	60	30.7	0.51	1.32	0.78	4.0
101010040349	MADRID	273	34	23.9	0.71	2.68	1.09	12.0
101010050349	MADRID	273	56	39.6	0.71	3.30	1.32	18.0
101010060349	MADRID	273	51	32.0	0.63	1.30	0.61	2.8
101020010349	BARCELONA	240	143	54.8	0.38	1.50	1.25	5.5
104020010349	SANTA CRUZ D	273	92	49.7	0.54	1.11	0.62	2.5

Annual descriptive parameters
Pollutant 4: Acid (column caption: see A4.1)

Station code	Town	cas	mean	std.d	V	skew	D	kurt
PPCVVSSSPLTM	name	no	val	val				
012010010403	BRUXELLES	357	40	21.6	0.54	1.38	0.78	2.8
012010080403	BRUXELLES	336	37	19.1	0.52	1.48	0.87	2.6
012010140403	BRUXELLES	297	26	13.0	0.50	1.98	1.22	5.3
012010170403	BRUXELLES	322	33	18.7	0.57	1.35	0.71	2.4
012010210403	BRUXELLES	356	42	23.6	0.56	1.57	0.85	3.1
012010220403	BRUXELLES	322	45	27.9	0.81	1.64	0.79	3.9
012010260403	BRUXELLES	362	38	17.6	0.46	1.02	0.68	1.4
013018010403	ANTWERPEN	333	64	41.0	0.64	1.87	0.85	4.5
013018090403	ANTWERPEN	357	73	36.9	0.51	1.43	0.87	2.3
013018120403	ANTWERPEN	354	51	35.8	0.71	2.07	0.83	5.3
013018130403	ANTWERPEN	356	62	39.9	0.64	1.65	0.76	2.6
013018180403	ANTWERPEN	361	64	33.2	0.52	1.19	0.70	1.5
013018260403	ANTWERPEN	349	115	88.0	0.77	2.00	0.73	5.1
014015010403	CHARLEROI	329	29	22.3	0.78	1.87	0.67	5.1
014015040403	CHARLEROI	338	26	30.1	1.15	2.51	0.51	6.7
014015050403	CHARLEROI	363	35	29.1	0.84	1.71	0.55	3.3
014015090403	CHARLEROI	315	41	33.2	0.80	2.04	0.70	5.8
014015130403	CHARLEROI	329	35	27.1	0.77	2.13	0.77	6.7
014015140403	CHARLEROI	350	41	26.2	0.64	1.58	0.73	2.9
014027010403	GENT	365	55	36.9	0.67	2.20	0.94	5.8
014027060403	GENT	334	32	17.9	0.56	1.79	0.97	4.5
014027070403	GENT	333	52	40.8	0.79	1.74	0.61	2.9
014027090403	GENT	332	56	25.5	0.45	1.33	0.92	1.9
014027120403	GENT	350	54	39.3	0.72	1.87	0.74	4.0
014027150403	GENT	347	42	31.5	0.75	1.91	0.71	4.6
014032020403	LIEGE	341	68	34.4	0.51	1.93	1.16	5.9
014032050403	LIEGE	255	74	40.5	0.54	1.67	0.93	3.7
014032080403	LIEGE	312	38	25.4	0.67	2.27	0.98	6.6
014032270403	LIEGE	251	45	24.1	0.54	1.71	0.97	5.8
015016050403	BRUGGE	343	20	18.9	0.92	2.77	0.78	11.5
015026030403	KORTRIJK	286	41	40.5	0.99	1.78	0.45	2.7
015033020403	LIBRAMONT	354	30	15.3	0.51	1.34	0.80	1.9
053010010404	DUBLIN	313	41	20.2	0.49	1.12	0.70	1.6
053010040404	DUBLIN	314	35	17.8	0.50	1.61	0.98	4.1
053010070404	DUBLIN	274	54	22.4	0.42	0.77	0.58	1.2
053010100404	DUBLIN	291	35	15.2	0.44	0.91	0.66	1.9
053011030404	DUBLIN	338	46	21.3	0.46	1.07	0.72	1.9
054010010405	CORK	281	26	12.7	0.48	0.69	0.44	1.0
055010010406	GALWAY	341	7	4.7	0.66	1.67	0.73	3.7
075013530401	LUXEMBOURG-V	261	35	21.1	0.60	1.64	0.82	4.4
075023550401	ESCH-SUR-ALZ	262	16	9.2	0.57	0.80	0.42	0.2
075033600401	STEINFORT	345	26	32.3	1.25	2.92	0.51	10.0
076990010401	SITE DE FOND	365	23	25.1	1.07	2.24	0.50	6.0
124010010409	PORTO	248	41	20.1	0.50	0.57	0.35	0.5

ANNUAL CHARACTERISTICS OF THE SERIES

October 1985 - September 1986

Annex 5: First characteristics of the time series
(selected series).

Column caption:

<u>Label</u>	<u>Explanation</u>
station code	PPCVVSSSPLTM: PP country code C town class code VV town code SSS station code PL pollutant code TM measurement technique code
S/W	ratio of the number of summer to winter measurements
50,98	winter and summer percentiles ($\mu\text{g}/\text{m}^3$) winter: October 85 to March 86 summer: April to September 86
slope, int.	slope ($\mu\text{g}/\text{m}^3/100$ days) and intercept ($\mu\text{g}/\text{m}^3$) of the regression line computed for the yearly series.
persist.	number of 3 days persistence for a concentration value higher than $125 \mu\text{g}/\text{m}^3$.

Results of this annex are graphically presented in :

Fig. II.4.1 to II.4.8 ; pages 67 - 70

Fig. II.4.9 to II.4.12 ; pages 71 - 74

First characteristics of the time series
Pollutant 1: SO₂ (column caption: see A5.1)

Station code	Town	S/W	summer		winter		regression		persist.
			no	50 98	50 98	slope	int.	no	
026990010113	B.R. DEUTSCH	1.00	2	12	5	56	-2	11	0
026990020113	B.R. DEUTSCH	1.01	1	60	11	227	-8	35	4
026990030113	B.R. DEUTSCH	0.99	3	29	26	159	-13	48	1
026990040113	B.R. DEUTSCH	1.01	5	33	17	116	-7	30	0
026990050113	B.R. DEUTSCH	1.01	4	21	18	165	-10	37	0
026990060113	B.R. DEUTSCH	1.01	1	29	8	92	-5	21	0
026990070113	B.R. DEUTSCH	1.01	1	18	2	68	-2	11	0
026990080113	B.R. DEUTSCH	0.99	1	14	9	76	-5	18	0
026990090113	B.R. DEUTSCH	0.98	4	32	18	165	-9	37	0
026990100113	B.R. DEUTSCH	1.00	11	47	29	201	-10	50	4
026990120113	B.R. DEUTSCH	0.91	7	38	25	168	-12	49	0
026990130113	B.R. DEUTSCH	0.99	1	45	13	186	-8	32	4
026990140113	B.R. DEUTSCH	1.02	1	23	9	169	-6	25	0
026990150113	B.R. DEUTSCH	1.01	8	51	26	241	-14	60	12
026990160113	B.R. DEUTSCH	0.96	12	183	39	440	-23	112	35
032011010127	KOBENHAVN	1.01	10	35	22	65	-5	29	0
032011030127	KOBENHAVN	1.01	20	43	31	68	-6	38	0
032011030128	KOBENHAVN	1.08	22	61	42	103	-10	54	0
032012100127	KOBENHAVN	1.01	7	30	15	69	-4	21	0
032012210127	KOBENHAVN	1.01	7	35	24	93	-7	33	0
032013420127	KOBENHAVN	1.01	6	22	12	65	-4	20	0
032013480127	KOBENHAVN	1.01	4	23	19	70	-8	30	0
034018150127	AALBORG	1.01	8	41	16	56	-3	22	0
034018150129	AALBORG	1.34	14	48	16	62	-0	20	0
034029150127	ODENSE	1.01	8	45	15	68	-4	22	0
034029150129	ODENSE	0.99	8	38	15	61	-4	22	0
035015650127	ESBJERG	1.01	6	19	9	51	-2	14	0
035015650129	ESBJERG	1.01	7	29	11	66	-4	18	0
035025150129	FREDERICIA	0.79	13	32	22	58	-3	25	0
035033510127	NAESTVED	1.01	9	28	19	73	-6	28	0
035033510129	NAESTVED	0.97	9	29	19	73	-6	30	0
035046350129	RANDERS	0.95	9	21	11	51	-1	14	0
101010010138	MADRID	2.03	54	77	72	148	-14	94	0
101010020138	MADRID	2.03	86	106	105	328	-21	146	6
101010030138	MADRID	2.03	72	117	82	132	-5	86	0
101010040138	MADRID	2.03	43	79	49	121	-6	64	0
101010050138	MADRID	2.03	60	91	75	326	-17	109	6
101010060138	MADRID	2.03	63	92	100	195	-27	138	8
101020010138	BARCELONA	1.88	34	104	61	176	-14	82	0
101020020138	BARCELONA	2.02	35	83	59	127	-13	76	0
104020010138	SANTA CRUZ D	2.03	31	187	38	135	2	44	2
105010010139	PALENCIA	2.03	11	52	36	147	-17	65	4
125020010141	SINES - MONT	2.23	3	23	3	19	1	4	0

First characteristics of the time series
Pollutant 2: Smoke (column caption: see A5.1)

Station code	Town	S/W	summer		winter		regression		persist. no
			no	50	98	50	98	slope		int.
012010010203	BRUXELLES	1.01	18	43	26	81	-4	32	0
012010080203	BRUXELLES	1.14	14	39	24	129	-6	37	1
012010140203	BRUXELLES	0.73	10	25	15	53	-2	19	0
012010170203	BRUXELLES	0.78	12	29	18	68	-1	20	0
012010210203	BRUXELLES	1.01	17	39	28	97	-5	37	0
012010220203	BRUXELLES	0.82	23	58	33	133	-5	41	0
012010260203	BRUXELLES	1.01	14	31	22	90	-4	30	0
013018010203	ANTWERPEN	0.87	9	27	20	61	-4	25	0
013018090203	ANTWERPEN	0.96	22	52	39	82	-8	47	0
013018120203	ANTWERPEN	1.03	9	24	22	65	-6	28	0
013018130203	ANTWERPEN	0.96	10	25	22	73	-5	28	0
013018180203	ANTWERPEN	1.02	9	26	21	74	-5	27	0
013018260203	ANTWERPEN	0.94	9	28	16	79	-4	24	0
014015010203	CHARLEROI	1.20	9	29	14	48	-2	18	0
014015040203	CHARLEROI	1.14	12	37	16	61	-1	19	0
014015050203	CHARLEROI	1.01	14	37	14	65	-1	17	0
014015090203	CHARLEROI	0.96	14	37	17	42	-2	20	0
014015130203	CHARLEROI	0.89	10	42	16	51	-2	18	0
014015140203	CHARLEROI	0.93	12	51	17	42	-1	20	0
014027010203	GENT	1.01	8	34	24	102	-7	33	0
014027060203	GENT	1.18	3	10	7	31	-2	11	0
014027070203	GENT	0.96	22	58	36	150	-8	50	0
014027090203	GENT	0.94	8	18	16	58	-4	21	0
014027120203	GENT	1.05	8	26	22	83	-6	30	0
014027150203	GENT	1.01	8	20	14	58	-3	19	0
014032020203	LIEGE	0.92	18	61	34	115	-5	39	0
014032050203	LIEGE	0.45	16	48	26	113	-3	36	0
014032060203	LIEGE	0.97	9	28	22	82	-5	27	0
014032270203	LIEGE	1.31	9	40	15	58	-1	17	0
015018050203	BRUGGE	1.14	7	22	16	54	-5	24	0
015026030203	KORTRIJK	1.13	13	34	33	99	-8	42	0
015033020203	LIBRAMONT	1.05	8	22	13	51	-3	18	0
053010010204	DUBLIN	1.01	33	108	61	242	-21	97	5
053010040204	DUBLIN	1.04	24	91	58	322	-27	107	5
053010070204	DUBLIN	1.79	15	72	39	206	-15	64	0
053010100204	DUBLIN	1.00	13	75	29	127	-7	41	0
053011030204	DUBLIN	1.00	16	79	40	173	-11	59	0
054010010205	CORK	1.28	14	58	33	151	-11	51	2
055010010206	GALWAY	0.93	7	40	20	102	-10	38	0
075013530201	LUXEMBOURG-V	0.46	21	37	6	24	5	4	0
075023550201	ESCH-SUR-ALZ	0.91	9	20	19	44	-7	27	0
075033600201	STEINFORT	0.98	9	21	26	78	-9	37	0
076990010201	SITE DE FOND	0.96	2	8	6	26	-2	8	0
105010010224	PALENCIA	2.03	15	58	30	94	-8	41	0
122010130225	LISBOA LUMIA	2.49	12	40	27	148	-12	49	0

First characteristics of the time series
Pollutant 3: SPM (column caption: see A5.1)

Station code	Town	S/W	summer		winter		regression		persist.
			no	50 98	50 98	slope int.	no		
026990010308	B.R. DEUTSCH	0.99	41	101	39	145	1	45	2
026990020308	B.R. DEUTSCH	0.93	32	115	39	131	-1	46	0
026990030308	B.R. DEUTSCH	0.97	37	128	49	147	-3	57	1
026990040308	B.R. DEUTSCH	1.01	30	103	32	123	-1	40	0
026990050308	B.R. DEUTSCH	0.98	43	108	46	158	-2	55	5
026990060308	B.R. DEUTSCH	1.01	29	81	24	91	2	28	0
026990070308	B.R. DEUTSCH	0.97	23	61	13	79	4	15	0
026990080308	B.R. DEUTSCH	0.94	27	74	31	126	-4	42	0
026990090308	B.R. DEUTSCH	1.01	35	101	39	171	-4	56	2
026990100308	B.R. DEUTSCH	0.92	36	105	37	119	0	43	0
026990120308	B.R. DEUTSCH	0.99	37	95	40	132	-2	51	0
026990130308	B.R. DEUTSCH	0.95	28	77	32	130	-3	43	0
026990140308	B.R. DEUTSCH	1.01	24	67	27	126	-2	37	1
026990150308	B.R. DEUTSCH	0.91	27	77	26	102	-1	36	0
026990160308	B.R. DEUTSCH	0.93	51	166	45	144	3	53	1
032011010347	KOBENHAVN	1.01	41	97	54	153	-6	64	1
032011030347	KOBENHAVN	1.01	91	180	92	291	-7	110	23
032012100347	KOBENHAVN	0.96	35	82	45	131	-6	55	0
032012210347	KOBENHAVN	0.93	34	83	50	132	-8	61	0
032013420347	KOBENHAVN	1.01	36	80	44	130	-7	57	0
034018150347	AALBORG	1.01	52	201	82	304	-14	107	16
034029150347	ODENSE	1.01	48	103	62	185	-8	79	2
035015650347	ESBJERG	1.01	47	86	56	157	-6	68	1
035033510347	NAESTVED	1.01	67	148	75	187	-9	93	7
101010010349	MADRID	2.03	63	147	69	152	-5	81	4
101010020349	MADRID	2.03	29	68	42	141	-9	59	1
101010030349	MADRID	2.03	58	123	47	144	-1	61	2
101010040349	MADRID	2.03	30	80	28	114	3	28	0
101010050349	MADRID	2.03	59	94	32	278	3	48	5
101010060349	MADRID	2.03	47	119	40	151	5	40	1
101020010349	BARCELONA	2.33	147	272	116	298	-8	161	76
104020010349	SANTA CRUZ D	2.03	78	171	91	224	-8	111	21

First characteristics of the time series
Pollutant 4: Acid (column caption: see A5.1)

Station code	Town	S/W	summer		winter		regression		persist.
			no	50	98	50	98	slope		int.	no
012010010403	BRUXELLES	0.97	29	79	42	95	-5	50	0
012010080403	BRUXELLES	1.10	33	90	33	91	-1	38	0
012010140403	BRUXELLES	0.74	21	39	24	80	-3	30	0
012010170403	BRUXELLES	0.78	29	63	27	87	-1	34	0
012010210403	BRUXELLES	0.98	33	99	43	105	-5	52	0
012010220403	BRUXELLES	0.78	39	116	36	100	4	39	0
012010260403	BRUXELLES	1.02	32	68	39	87	-4	45	0
013018010403	ANTWERPEN	0.85	43	109	64	194	-10	82	9
013018090403	ANTWERPEN	0.96	56	117	77	197	-9	90	7
013018120403	ANTWERPEN	1.05	33	75	58	191	-11	72	5
013018130403	ANTWERPEN	0.97	43	101	67	193	-10	81	12
013018180403	ANTWERPEN	1.01	49	116	71	170	-9	81	2
013018260403	ANTWERPEN	0.95	68	258	112	407	-29	167	35
014015010403	CHARLEROI	1.21	20	61	30	114	-5	38	0
014015040403	CHARLEROI	1.14	12	54	25	153	-8	42	4
014015050403	CHARLEROI	1.01	30	97	21	132	-0	35	1
014015090403	CHARLEROI	0.96	30	109	36	155	1	39	0
014015130403	CHARLEROI	0.88	28	81	26	107	-1	37	1
014015140403	CHARLEROI	0.92	28	61	46	129	-7	54	0
014027010403	GENT	1.01	38	86	53	195	-6	67	12
014027060403	GENT	1.17	26	75	30	98	-1	34	0
014027070403	GENT	0.90	32	81	45	191	-7	65	10
014027090403	GENT	0.91	51	118	47	129	2	53	0
014027120403	GENT	1.00	39	88	45	190	-7	67	9
014027150403	GENT	0.99	30	120	38	171	0	42	3
014032020403	LIEGE	0.93	53	109	66	189	-6	78	6
014032050403	LIEGE	0.44	66	126	62	193	4	68	9
014032080403	LIEGE	0.96	28	59	35	135	-5	46	0
014032270403	LIEGE	1.32	40	83	39	129	-3	50	0
015016050403	BRUGGE	1.14	15	41	17	88	-4	29	0
015026030403	KORTRIJK	0.88	17	48	42	172	-12	62	10
015033020403	LIBRAMONT	1.05	26	75	26	74	-0	30	0
053010010404	DUBLIN	0.73	32	82	42	104	-3	45	0
053010040404	DUBLIN	1.04	31	55	34	90	-4	43	0
053010070404	DUBLIN	1.82	57	113	47	103	6	40	0
053010100404	DUBLIN	0.69	34	92	33	86	3	31	0
053011030404	DUBLIN	0.89	52	118	34	74	9	31	0
054010010403	CORK	1.18	26	47	25	63	1	24	0
055010010406	GALWAY	0.92	6	16	6	23	-1	9	0
075013530401	LUXEMBOURG-V	0.47	29	47	33	107	-2	39	0
075023550401	ESCH-SUR-ALZ	0.93	10	24	21	39	-5	25	0
075033600401	STEINFORT	0.94	9	29	26	150	-10	43	3
076990010401	SITE DE FOND	1.01	8	51	25	124	-8	39	0
124010010409	PORTO	1.76	39	85	37	75	-2	45	0

ANNUAL CHARACTERISTICS OF THE SERIES

October 1985 - September 1986

Annex 6: Status of the isolated extremum of the
monthly median values

Column caption:

<u>Label</u>	<u>Explanation</u>
station code	PPCVVSSSPLTM: PP country code C town class code VV town code SSS station code PL pollutant code TM measurement technique code
status code	The status code found in the following Annex is a scaling of the isolation tendency of the extreme monthly median values with respect to the spreading of the other monthly medians (see explanation in Chapter II.4).

Results of this annex are summarized in :

Fig. II.4.17 ; page 75

Status of the isolated extremum of the monthly median values
Pollutant 1: SO₂ (column caption: see A6.1)

Station code	Status code												
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
PRCVVSSSPLTM	85					86					86		
026990010113	B.R. DEUTSCH	.	.	.	.	1	.	.	.	.	.	.	.
026990020113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990030113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990040113	B.R. DEUTSCH	.	.	.	.	5	.	.	.	.	.	.	.
026990050113	B.R. DEUTSCH	.	.	.	.	.	1	.	.	.	.	.	.
026990060113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990070113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990080113	B.R. DEUTSCH	.	.	.	.	1	.	.	.	.	.	.	.
026990090113	B.R. DEUTSCH	.	1	.	.	1	.	.	.	.	.	.	.
026990100113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990120113	B.R. DEUTSCH	.	.	.	.	3	.	.	.	.	.	.	.
026990130113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990140113	B.R. DEUTSCH	.	.	.	.	5	.	.	.	.	.	.	.
026990150113	B.R. DEUTSCH	.	1	.	.	5	.	.	.	.	.	.	.
026990160113	B.R. DEUTSCH	.	.	.	.	5	.	.	.	.	.	.	.
032011010127	KOBENHAVN	.	.	.	.	1	.	.	.	.	.	.	.
032011030127	KOBENHAVN	1	.	.	.	.	.	.	.	.	.	.	.
032011030128	KOBENHAVN	.	.	.	.	.	.	.	.	.	.	.	.
032012100127	KOBENHAVN	.	.	.	.	.	1	.	.	.	.	.	.
032012210127	KOBENHAVN	.	.	.	.	.	.	.	.	.	.	.	.
032013420127	KOBENHAVN	.	.	.	.	1	.	.	.	.	.	.	.
032013480127	KOBENHAVN	.	.	.	.	.	.	.	.	.	.	.	.
034018150127	AALBORG	.	.	.	.	.	.	.	.	.	.	.	.
034018150129	AALBORG	.	.	.	.	.	.	.	.	.	.	.	.
034029150127	ODENSE	.	.	.	.	3	.	.	.	.	.	.	.
034029150129	ODENSE	.	.	.	.	3	.	.	.	.	.	.	.
035015650127	ESBJERG	.	.	.	.	.	1	.	.	.	.	.	.
035015650129	ESBJERG	.	.	.	.	.	.	.	.	.	.	.	.
035025150129	FREDERICIA	.	.	.	.	.	.	.	.	.	.	.	.
035033510127	NAESTVED	.	.	.	.	.	.	.	.	.	.	.	.
035033510129	NAESTVED	.	3	.	.	.	.	.	.	.	.	.	.
035046350129	RANDERS	.	.	.	1	.	.	.	.	.	.	.	.
064080010124	PESCARA	.	.	.	.	2	.	.	.	.	.	.	.

Status of the isolated extremum of the monthly median values
Pollutant 2: Smoke (column caption: see A6.1)

Station code PPVVVSSSPLTM	Status code											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
	85				86							86
012010010203 BRUXELLES	5	.	.	.	.	.	.	.
012010080203 BRUXELLES	5	.	.	.	.	.	.	.
012010210203 BRUXELLES	.	1	.	.	5	.	.	.	.	.	.	.
012010260203 BRUXELLES	5	.	.	.	.	.	.	.
013018010203 ANTWERPEN	1	.	.	.	.	.	.	.
013018090203 ANTWERPEN
013018120203 ANTWERPEN	3	.	.	.	.	.	.	.
013018130203 ANTWERPEN	3	.	.	.	.	.	.	.
013018180203 ANTWERPEN	1	.	.	.	.	.	.	.
013018260203 ANTWERPEN	5	.	.	.	.	.	.	.
014015010203 CHARLEROI	2	.	.	.	.	.	.	.
014015040203 CHARLEROI
014015050203 CHARLEROI	1	.	-1	.	.	.	.	.	.	.	.	.
014015090203 CHARLEROI
014015130203 CHARLEROI
014015140203 CHARLEROI	-1	.	.	.
014027010203 GENT	5	.	.	.	.	.	.	.
014027060203 GENT	1	.	.	.	.	.	.	.
014027070203 GENT	4	.	.	.	.	.	.	.
014027090203 GENT	3	.	.	.	.	.	.	.
014027120203 GENT	5	.	.	.	.	.	.	.
014027150203 GENT	3	1	.	.	.	.	.	.
014032020203 LIEGE
014032080203 LIEGE	4	.	.	.	.	.	.	.
015016050203 BRUGGE
015026030203 KORTRIJK	5	.	.	.	.	.	.	.
015033020203 LIBRAMONT	5	.	.	.	.	.	.	.
053010010204 DUBLIN
053010040204 DUBLIN	.	2	.	.	.	.	.	.	.	.	.	.
053010100204 DUBLIN
053011030204 DUBLIN
054010010205 CORK	.	.	.	1	.	.	.	.	.	.	.	.
055010010206 GALWAY	.	1	.	.	1	.	.	.	.	.	.	.
075033600201 STEINFORT	3	.	.	.	.	.	.	.
076990010201 SITE DE FOND	5	.	.	.	.	.	.	.

Status of the isolated extremum of the monthly median values
Pollutant 4: Acid (column caption: see A6.1)

Station code PPCVVSSSPLIM	Status code											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
	85				86							86
012010010403 BRUXELLES
012010080403 BRUXELLES	1	.	.	.	.	.	.	.
012010210403 BRUXELLES	3	.	.	.	.	.	.	.
012010260403 BRUXELLES	1	.	.	.	.	.	.	.
013018010403 ANTWERPEN	3	.	.	.	.	.	.	.
013018090403 ANTWERPEN	5	.	.	.	.	.	.	.
013018120403 ANTWERPEN	5	.	.	.	.	.	.	.
013018130403 ANTWERPEN	5	.	.	.	.	.	.	.
013018180403 ANTWERPEN
013018260403 ANTWERPEN	.	.	3	.	.	.	.	.	.	.	.	.
014015010403 CHARLEROI
014015040403 CHARLEROI	5	.	.	.	.	.	.	.
014015050403 CHARLEROI	2	.	.	.	.	.	.	.
014015090403 CHARLEROI	-1	.	.	.	.	.	.	.	.	.	.	.
014015130403 CHARLEROI	3	1	.	.	.	.	.	.
014015140403 CHARLEROI	5	.	.	.	.	.	.	.
014027010403 GENT	5	.	.	.	.	.	-1	.
014027060403 GENT	5	.	.	.	.	.	.	.
014027070403 GENT	5	.	.	.	.	.	.	.
014027090403 GENT	3	.	.	.	1	.	.	.
014027120403 GENT	5	.	.	.	.	.	.	.
014027150403 GENT	5	1	.	.	.	.	.	.
014032020403 LIEGE	5	.	.	.	.	.	.	.
014032080403 LIEGE	5	.	.	.	.	.	.	.
015016050403 BRUGGE	.	5	.	.	1	.	.	.	.	.	.	.
015026030403 KORTRIJK	5	.	.	.	.	.	.	.
015033020403 LIBRAMONT
053010010404 DUBLIN	1	.	.	.	.	.	.	1
053010040404 DUBLIN
053010100404 DUBLIN	-3	.	.	.	1	.	.	.	.	.	.	.
053011030404 DUBLIN
054010010405 CORK	.	.	.	-1	.	.	.	.	.	.	.	.
055010010406 GALWAY
075033800401 STEINFORT	5	.	.	.	.	.	.	.
076990010401 SITE DE FOND	5	.	.	.	.	.	.	.

ABBREVIATED DESCRIPTIVE TABLES

(based on Commission files)

POLLUTANTS (PL)

01	SO ₂
02	SMOKE/FUMES
03	PARTICLES
04	ACIDITY

COUNTRY (PP)

01	BELGIQUE
02	BUNDESREPUBLIK D.
03	DANMARK
04	FRANCE
05	IRELAND
06	ITALIA
07	LUXEMBOURG G'DUCHE
08	NEDERLAND
09	UNITED KINGDOM
10	ESPANA
11	GREECE
12	PORTUGAL

CLASS OF TOWN (C)

1	> 2 M inhabitants
2	1 - 2 M inhabitants
3	0.5 - 1 M inhabitants
4	0.1 - 0.5 M inhabitants
5	< 0.1 M inhabitants
6	BACKGROUND STATIONS

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Numerical order

01 2 01	BRUXELLES
01 3 01	ANTWERPEN
01 4 01	CHARLEROI
01 4 02	GENT
01 4 03	LIEGE
01 5 01	BRUGGE
01 5 02	KORTRIJK
01 5 03	LIBRAMONT
01 5 04	NAMUR
01 6 99	SITES DE FOND
02 1 01	BERLIN (WEST)
02 2 01	MUENCHEN, BAYERN
02 3 01	DORTMUND
02 3 02	DUISBURG
02 3 03	DUESSELDORF
02 3 04	FRANKFURT-AM-MAIN
02 3 05	NUERNBERG, BAYERN
02 3 06	STUTTGART
02 4 01	AUGSBURG, BAYERN
02 4 02	ERLANGEN, BAYERN
02 4 03	KARLSRUHE
02 4 04	KASSEL, HESSEN
02 4 05	LUDWIGSHAFEN
02 4 06	MANNHEIM
02 4 07	REGENSBURG, BAYERN
02 4 08	WIESBADEN, HESSEN
02 4 09	WUERZBURG, BAYERN
02 4 10	INGOLSTADT, BAYERN
02 4 11	FUERTH, BAYERN
02 4 12	MAINZ
02 4 13	FREIBERG
02 5 01	ASCHAFFENBURG
02 5 02	KELHEIM, BAYERN
02 5 03	HEILBROENN
02 5 04	ULM
02 5 05	SPEIZER
02 6 00	HINTERGRUNDKLASSE
02 6 99	B.R. DEUTSCHLAND
03 2 01	KOBENHAVN
03 4 01	AALBORG
03 4 02	ODENSE
03 5 01	ESBJERG
03 5 02	FREDERICIA
03 5 03	NAESTVED
03 5 04	RANDERS

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Numerical order

04 1 01	PARIS
04 2 01	LYON
04 2 02	MARSEILLE
04 3 01	BORDEAUX
04 3 02	LILLE-ROUB. -TOURC.
04 3 03	TOULOUSE
04 4 01	CLERMONT-FERRAND
04 4 02	LE HAVRE
04 4 03	NANTES
04 4 04	ROUEN
04 4 05	STRASBOURG
04 4 06	MONTPELLIER
04 4 07	CAEN - AGGLOMERATION
04 5 01	CALAIS
04 5 02	FOS-BERRE
04 5 03	VIGNEUX DE BRETAGNE
04 5 04	DUNKERQUE FRANCE
04 6 99	SITE DU FOND
05 3 01	DUBLIN
05 4 01	CORK
05 5 01	GALWAY
05 5 02	CORK COUNTY COUNCIL,
05 6 99	BACKGROUND SITES
06 1 01	MILANO
06 1 02	ROMA, ITALIA
06 2 01	TORINO
06 3 02	GENOVA
06 4 01	ANCONA
06 4 02	BARI
06 4 03	BOLOGNA
06 4 04	BOLZANO
06 4 05	LA SPEZIA
06 4 06	MODENA
06 4 07	PADOVA
06 4 08	PESCARA
06 4 09	PIACENZA
06 4 10	TERNI
06 4 11	TRIESTE
06 4 12	VENEZIA
06 4 13	VERONA
06 4 14	FERRARA
06 5 01	AOSTA
06 5 02	ASCOLI PICENO
06 5 03	ASTI
06 5 04	BELLUNO
06 5 05	CREMONA
06 5 06	CUNEO
06 5 07	GELA
06 5 08	MACERATA
06 5 09	PISTOIA
06 5 10	ROVIGO

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Numerical order

06 5 11	SASSARI
06 5 12	TARANTO
06 5 13	TRENTO
06 5 14	VERCELLI
06 5 15	POMEZIA
06 5 16	CIVITAVECCHIA
06 5 17	MONTEROTONDO
06 5 18	GUIDONIA
06 5 19	TIVOLI
06 5 20	COLLEFERRO
06 5 21	NETTUNO
06 6 99	POSTI DI SFONDO
07 0 00	LUXEMBOURG G'DUCHE
07 5 01	LUXEMBOURG-VILLE
07 5 02	ESCH-SUR-ALZETTE
07 5 03	STEINFORT
07 6 99	SITE DE FOND
08 3 01	AMSTERDAM
08 3 02	DEN HAAG
08 3 03	ROTTERDAM
08 4 01	ENSCHEDÉ
08 4 02	GRONINGEN
08 4 03	TILBURG
08 4 04	UTRECHT
08 5 01	BUSSUM
08 5 02	DEN BOSCH
08 5 03	HILVERSUM
08 5 04	MAASTRICHT
08 5 05	MIDDELBURG
08 5 06	ZWOLLE
08 6 99	LIG.ACHTERGRONDMET.
09 1 01	GREATER LONDON
09 1 02	GREATER MANCHESTER
09 1 03	W.MIDL.CONURBATION
09 2 01	GLASGOW|SURROUNDINGS
09 2 02	MERSEYSIDE CONURB.
09 3 01	LEEDS
09 3 02	SHEFFIELD
09 3 03	TYNESIDE
09 4 01	BELFAST
09 4 02	CARDIFF
09 4 03	EDINBURGH
09 4 04	PORTSMOUTH
09 4 05	TEESSIDE
09 5 01	BARNSLEY
09 5 02	BATH
09 5 03	BEDFORD
09 5 04	EXETER
09 5 05	LINCOLN
09 6 99	BACKGR.SITES FOR U.K

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Numerical order

10 1 01	MADRID
10 1 02	BARCELONA
10 3 01	SEVILLA
10 4 01	BILBAO
10 4 02	SANTA CRUZ DE TENERIFE
10 5 01	PALENCIA
11 1 01	ATHENS
11 3 01	THESSALONIKI
11 5 01	MEGALOPOLI
11 5 02	PTOLEMAIDA
12 2 01	LISBOA LUMIAR
12 4 01	PORTO
12 4 02	LECA DE PALMEIRA - MATOSINHOS
12 5 01	BARREIRO - ARROTEIAS
12 5 02	SINES - MONTES CHAOS

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Alphabetical order

AALBORG	03 4 01
AMSTERDAM	08 3 01
ANCONA	06 4 01
ANTWERPEN	01 3 01
AOSTA	06 5 01
ASCHAFFENBURG	02 5 01
ASCOLI PICENO	06 5 02
ASTI	06 5 03
ATHENS	11 1 01
AUGSBURG, BAYERN	02 4 01
B.R. DEUTSCHLAND	02 6 99
BACKGR.SITES FOR U.K	09 6 99
BACKGROUND SITES	05 6 99
BARCELONA	10 1 02
BARI	06 4 02
BARNSLEY	09 5 01
BARREIRO - ARROTEIAS	12 5 01
BATH	09 5 02
BEDFORD	09 5 03
BELFAST	09 4 01
BELLUNO	06 5 04
BERLIN (WEST)	02 1 01
BILBAO	10 4 01
BOLOGNA	06 4 03
BOLZANO	06 4 04
BORDEAUX	04 3 01
BRUGGE	01 5 01
BRUXELLES	01 2 01
BUSSUM	08 5 01
CAEN - AGGLOMERATION	04 4 07
CALAIS	04 5 01
CARDIFF	09 4 02
CHARLEROI	01 4 01
CIVITAVECCHIA	06 5 16
CLERMONT-FERRAND	04 4 01
COLLEFERRO	06 5 20
CORK	05 4 01
CORK COUNTY COUNCIL,	05 5 02
CREMONA	06 5 05
CUNEO	06 5 06
DEN BOSCH	08 5 02
DEN HAAG	08 3 02
DORTMUND	02 3 01
DUBLIN	05 3 01
DUESSELDORF	02 3 03
DUISBURG	02 3 02
DUNKERQUE FRANCE	04 5 04

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Alphabetical order

EDINBURGH	09 4 03
ENSCHEDÉ	08 4 01
ERLANGEN, BAYERN	02 4 02
ESBJERG	03 5 01
ESCH-SUR-ALZETTE	07 5 02
EXETER	09 5 04
FERRARA	06 4 14
FOS-BERRE	04 5 02
FRANKFURT-AM-MAIN	02 3 04
FREDERICIA	03 5 02
FREIBERG	02 4 13
FUERTH, BAYERN	02 4 11
GALWAY	05 5 01
GELA	06 5 07
GENOVA	06 3 02
GENT	01 4 02
GLASGOW | SURROUNDINGS	09 2 01
GREATER LONDON	09 1 01
GREATER MANCHESTER	09 1 02
GRONINGEN	08 4 02
GUIDONIA	06 5 18
HEILBROENN	02 5 03
HILVERSUM	08 5 03
HINTERGRUNDKLASSE	02 6 00
INGOLSTADT, BAYERN	02 4 10
KARLSRUHE	02 4 03
KASSEL, HESSEN	02 4 04
KELHEIM, BAYERN	02 5 02
KOBENHAVN	03 2 01
KORTRIJK	01 5 02
LA SPEZIA	06 4 05
LE HAVRE	04 4 02
LECA DE PALMEIRA - MATOSINHOS	12 4 02
LEEDS	09 3 01
LIBRAMONT	01 5 03
LIEGE	01 4 03
LIG.ACHTERGRONDMET.	08 6 99
LILLE-ROUB.-TOURC.	04 3 02
LINCOLN	09 5 05
LISBOA LUMIAR LISBOA	12 2 01
LUDWIGSHAFEN	02 4 05
LUXEMBOURG G'DUCHE	07 0 00
LUXEMBOURG-VILLE	07 5 01
LYON	04 2 01

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Alphabetical order

MAASTRICHT	08 5 04
MACERATA	06 5 08
MADRID	10 1 01
MAINZ	02 4 12
MANNHEIM	02 4 06
MARSEILLE	04 2 02
MEGALOPOLI	11 5 01
MERSEYSIDE CONURB.	09 2 02
MIDDELBURG	08 5 05
MILANO	06 1 01
MODENA	06 4 06
MONTEROTONDO	06 5 17
MONTPELLIER	04 4 06
MUENCHEN, BAYERN	02 2 01
NAESTVED	03 5 03
NAMUR	01 5 04
NANTES	04 4 03
NETTUNO	06 5 21
NUERNBERG, BAYERN	02 3 05
ODENSE	03 4 02
PADOVA	06 4 07
PALENCIA	10 5 01
PARIS	04 1 01
PESCARA	06 4 08
PIACENZA	06 4 09
PISTOIA	06 5 09
POMEZIA	06 5 15
PORTO	12 4 01
PORTSMOUTH	09 4 04
POSTI DI SFONDO	06 6 99
PTOLEMAIDA	11 5 02
RANDERS	03 5 04
REGENSBURG, BAYERN	02 4 07
ROMA, ITALIA	06 1 02
ROTTERDAM	08 3 03
ROUEN	04 4 04
ROVIGO	06 5 10
SANTA CRUZ DE TENERIFE	10 4 02
SASSARI	06 5 11
SEVILLA	10 3 01
SHEFFIELD	09 3 02
SINES - MONTES CHAOS	12 5 02
SITE DE FOND	07 6 99
SITE DU FOND	04 6 99
SITES DE FOND	01 6 99

COUNTRY/CLASS OF TOWN/TOWN (PPCVV)

Alphabetical order

SPEIZER	02 5 05
STEINFORT	07 5 03
STRASBOURG	04 4 05
STUTT GART	02 3 06
TARANTO	06 5 12
TEESSIDE	09 4 05
TERNI	06 4 10
THESSALONIKI	11 3 01
TILBURG	08 4 03
TIVOLI	06 5 19
TORINO	06 2 01
TOULOUSE	04 3 03
TRENTO	06 5 13
TRIESTE	06 4 11
TYNESIDE	09 3 03
ULM	02 5 04
UTRECHT	08 4 04
VENEZIA	06 4 12
VERCELLI	06 5 14
VERONA	06 4 13
VIGNEUX DE BRETAGNE	04 5 03
W.MIDL.CONURBATION	09 1 03
WIESBADEN, HESSEN	02 4 08
WUERZBURG, BAYERN	02 4 09
ZWOLLE	08 5 06



