

$CO_{2max}$	Theoretical volume	20.1					
$V^s_{smin}$	The theoretical volume	6.89					
$L_{min}$	The theoretical volume	7.05					
Number of measurements	Time	Date	T_ok °C	$(x_i-x)^2$	T_pl °C	$(x_i-x)^2$	O <sub>2</sub> %
1	10:13:14		28.00	55.28	247.60	26.86	10.83
2	10:14:14		29.00	41.41	247.00	21.00	10.78
3	10:15:14		29.00	41.41	246.00	12.83	11.41
4	10:16:14		29.00	41.41	247.00	21.00	11.68
5	10:17:14		30.00	29.54	245.30	8.31	12.46
6	10:18:14		30.00	29.54	244.00	2.50	13.08
7	10:19:14		31.00	19.67	244.40	3.93	13.70
8	10:20:14		31.00	19.67	244.00	2.50	14.54
9	10:21:14		31.00	19.67	244.00	2.50	14.92
10	10:22:14		31.00	19.67	242.90	0.23	15.43
11	10:23:14		32.00	11.80	243.20	0.61	16.05
12	10:24:14		32.00	11.80	242.00	0.17	16.49
13	10:25:14		32.00	11.80	241.50	0.84	17.12
14	10:26:14		32.00	11.80	243.00	0.34	17.36
15	10:27:14		33.00	5.93	241.00	2.01	17.69
16	10:28:14		33.00	5.93	242.00	0.17	17.83
17	10:29:14		33.00	5.93	242.00	0.17	18.36
18	10:30:14		33.00	5.93	242.60	0.03	16.78
19	10:31:14		33.00	5.93	241.00	2.01	16.62
20	10:32:14		34.00	2.06	241.00	2.01	16.49
21	10:33:14		34.00	2.06	242.60	0.03	16.41
22	10:34:14		34.00	2.06	242.90	0.23	16.36
23	10:35:14		34.00	2.06	243.00	0.34	16.56
24	10:36:14		34.00	2.06	243.00	0.34	16.48
25	10:37:14		34.00	2.06	242.60	0.03	16.50
26	10:38:14		34.00	2.06	242.90	0.23	16.66
27	10:39:14		34.00	2.06	242.00	0.17	16.75
28	10:40:14		34.00	2.06	242.00	0.17	16.73
29	10:41:14		34.00	2.06	243.00	0.34	16.82
30	10:42:14		34.00	2.06	240.00	5.85	17.02
31	10:43:14		34.00	2.06	242.00	0.17	17.14
32	10:44:14		34.00	2.06	242.00	0.17	17.38
33	10:45:14		34.00	2.06	241.00	2.01	17.55
34	10:46:14		34.00	2.06	240.00	5.85	17.60
35	10:47:14		34.00	2.06	243.20	0.61	17.68
36	10:48:14		34.00	2.06	241.20	1.48	17.90
37	10:49:14		35.00	0.19	241.80	0.38	17.99
38	10:50:14		35.00	0.19	242.60	0.03	18.24
39	10:51:14		35.00	0.19	242.00	0.17	18.31
40	10:52:14		35.00	0.19	241.50	0.84	18.48
41	10:53:14		35.00	0.19	243.00	0.34	18.80
42	10:54:14		35.00	0.19	240.60	3.30	17.05
43	10:55:14		35.00	0.19	241.00	2.01	16.88
44	10:56:14		35.00	0.19	241.00	2.01	16.66
45	10:57:14		35.00	0.19	242.00	0.17	16.87
46	10:58:14		36.00	0.32	241.80	0.38	17.02
47	10:59:14		36.00	0.32	242.60	0.03	17.22
48	11:00:14		36.00	0.32	242.40	0.00	17.06

49	11:01:14	36.00	0.32	243.00	0.34	17.19
50	11:02:14	37.00	2.45	242.00	0.17	17.30
51	11:03:14	37.00	2.45	243.00	0.34	17.32
52	11:04:14	37.00	2.45	243.00	0.34	17.22
53	11:05:14	37.00	2.45	240.00	5.85	17.17
54	11:06:14	37.00	2.45	241.00	2.01	17.33
55	11:07:14	37.00	2.45	241.00	2.01	17.16
56	11:08:14	37.00	2.45	242.00	0.17	17.25
57	11:09:14	37.00	2.45	242.00	0.17	17.21
58	11:10:14	38.00	6.58	241.00	2.01	17.18
59	11:11:14	38.00	6.58	243.00	0.34	17.07
60	11:12:14	38.00	6.58	242.90	0.23	17.17
61	11:13:14	38.00	6.58	243.00	0.34	17.32
62	11:14:14	38.00	6.58	241.80	0.38	17.34
63	11:15:14	38.00	6.58	242.40	0.00	17.26
64	11:17:14	38.00	6.58	242.90	0.23	17.36
65	11:18:14	38.00	6.58	242.00	0.17	17.34
66	12:18:14	39.00	12.71	241.20	1.48	18.34
67	13:18:14	39.00	12.71	241.00	2.01	17.34
68	11:19:14	39.00	12.71	242.60	0.03	17.46
69	11:20:14	39.00	12.71	241.00	2.01	17.48
70	11:21:14	39.00	12.71	242.00	0.17	17.56
71	11:22:14	39.00	12.71	241.00	2.01	17.81
72	11:23:14	39.00	12.71	243.00	0.34	17.79
73	11:24:14	39.00	12.71	242.00	0.17	17.80
74	11:25:14	39.00	12.71	243.00	0.34	17.80
75	11:26:14	39.00	12.71	241.00	2.01	18.01
76	11:27:14	39.00	12.71	241.00	2.01	18.30
77	11:28:14	39.00	12.71	242.00	0.17	18.45
78	11:29:14	40.00	20.84	243.00	0.34	18.63
79	11:30:14	40.00	20.84	243.00	0.34	18.57
80	11:31:14	40.00	20.84	243.00	0.34	18.87
81	11:32:14	39.00	12.71	244.00	2.50	18.91
82	11:33:14	39.00	12.71	243.00	0.34	18.03
83	11:34:14	39.00	12.71	242.00	0.17	17.76
84	11:35:14	39.00	12.71	242.00	0.17	17.75
85	11:36:14	39.00	12.71	241.50	0.84	17.66

Number of measurements	Time	Date	T_ok		T_pl		O <sub>2</sub>
			°C		°C		%

Average			35.43529412		242.417647		16.8852941
s <sup>2</sup>			9.320168067		2.03218487		2.85097283
Sum			782.8941176		170.703529		239.481718
s			3.05289503		1.42554722		1.6884824
V			0.086154076		0.00588054		0.09999722
Confident interval +/-			0.662265917		0.30924461		0.36628326
	2		40		247.6		18.91
			28		240		10.78

T_ok	T_pl	O <sub>2</sub>	n z O <sub>2</sub>	CO <sub>2</sub>	n z CO <sub>2</sub>
°C	°C	%	0.000	%	0.000

Average	35.435	242.418	16.885	5.691	2.990	7.385
s <sup>2</sup>	9.320	2.032	2.851	2.718	1.553	4.873
s	3.053	1.426	1.688	1.649	1.246	2.208
V	0.086	0.006	0.100	0.290	0.417	0.299
Max.	40.000	247.600	18.910	10.048	7.480	13.119
Min.	28.000	240.000	10.780	2.055	1.500	2.649

O2	CO2
16.885	2.990 %
	19.876 %

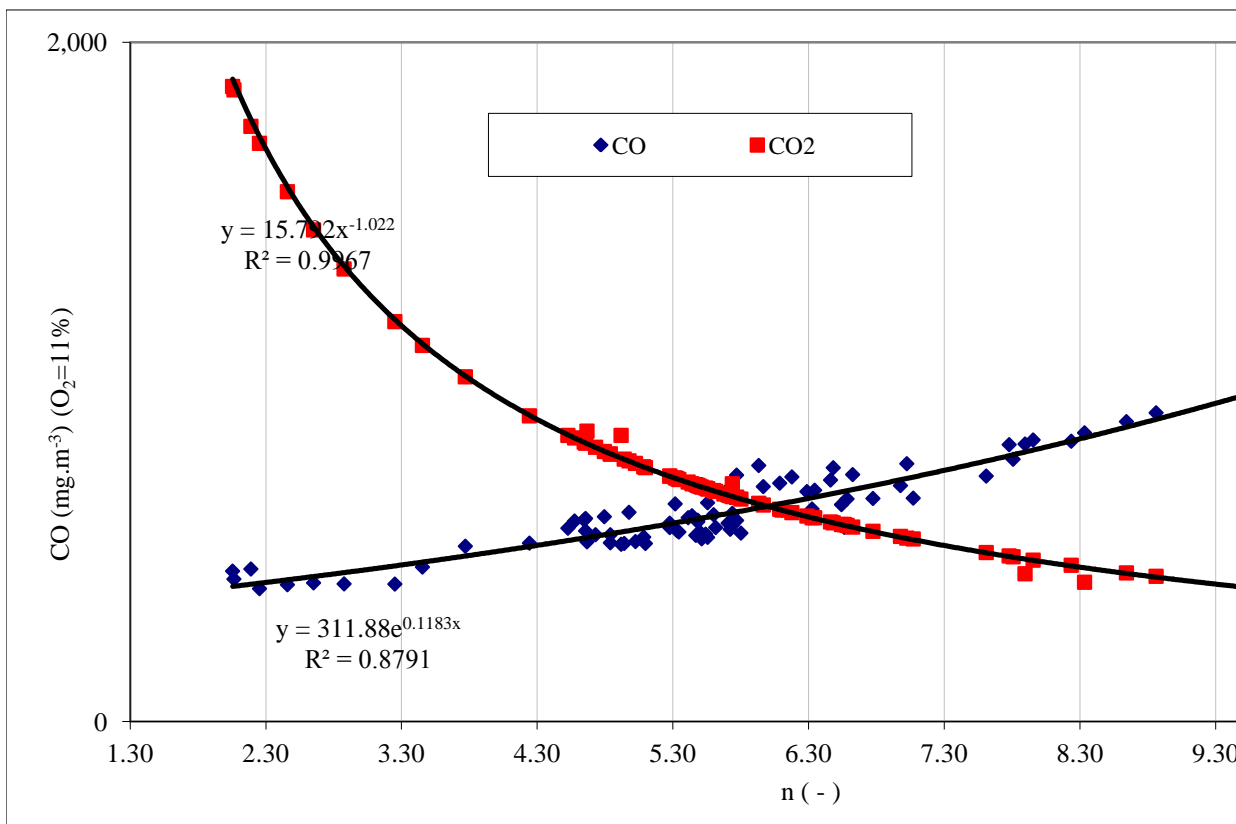


Figure 1. Emission concentration of CO and CO2 depending on the Excess air ratio during woody pellets

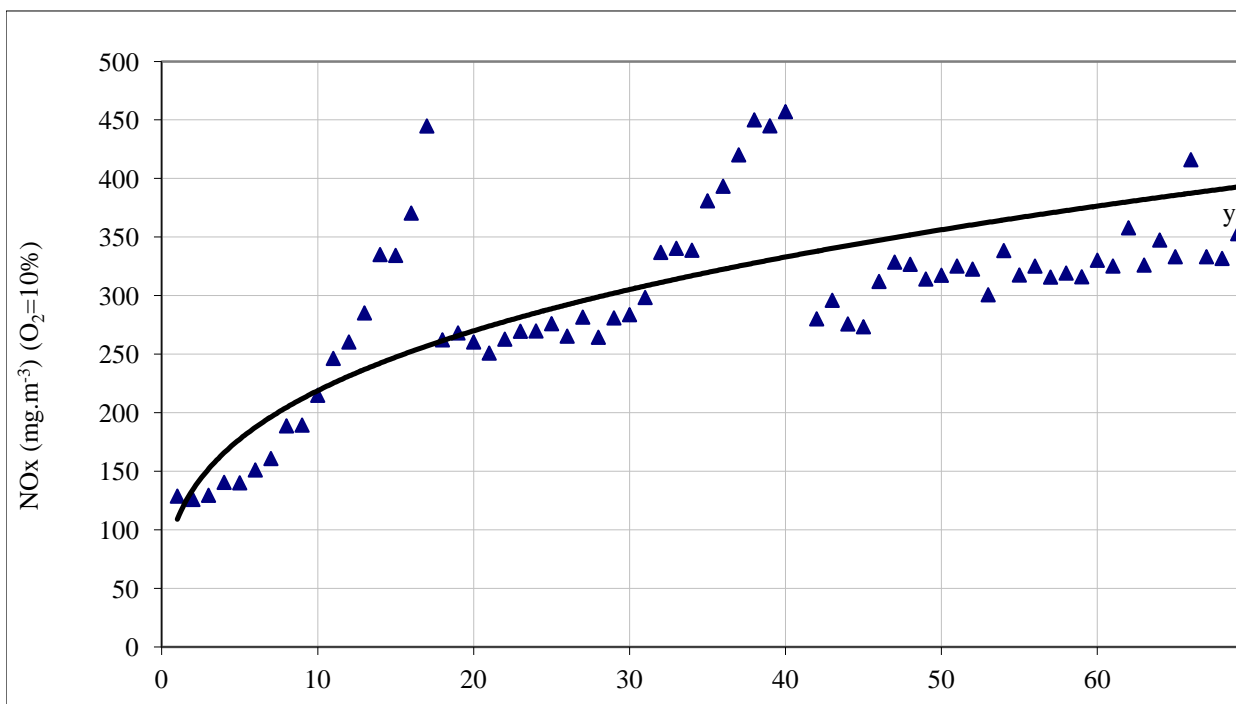




Figure 3. Concentration of Nox depending on time

$(x_i - \bar{x})^2$	n z O <sub>2</sub>	$(x_i - \bar{x})^2$	CO <sub>2</sub>	$(x_i - \bar{x})^2$	n z CO <sub>2</sub>	$(x_i - \bar{x})^2$	CO
			%				ppm
36.67	2.06	13.15	7.44	19.80	2.66	22.30	310.00
37.27	2.05	13.22	7.48	20.16	2.65	22.43	329.00
29.98	2.19	12.26	7.01	16.16	2.82	20.79	313.00
27.10	2.25	11.82	6.81	14.59	2.91	20.05	265.00
19.58	2.46	10.45	6.24	10.56	3.17	17.76	250.00
14.48	2.65	9.24	5.79	7.84	3.42	15.76	235.00
10.15	2.88	7.92	5.33	5.47	3.71	13.52	215.00
5.50	3.25	5.96	4.71	2.96	4.19	10.19	190.00
3.86	3.45	5.01	4.43	2.07	4.46	8.57	201.00
2.12	3.77	3.69	4.06	1.14	4.86	6.37	209.00
0.70	4.24	2.10	3.60	0.37	5.48	3.63	189.00
0.16	4.66	1.07	3.28	0.08	6.01	1.89	196.00
0.06	5.41	0.08	2.82	0.03	6.99	0.16	229.00
0.23	5.77	0.01	2.64	0.12	7.46	0.01	192.00
0.65	6.34	0.43	2.40	0.35	8.21	0.68	193.00
0.89	6.62	0.87	2.29	0.49	8.60	1.48	186.00
2.17	7.95	5.12	1.90	1.19	10.36	8.86	184.00
0.01	4.98	0.51	3.07	0.01	6.42	0.93	189.00
0.07	4.79	0.80	3.18	0.04	6.20	1.40	192.00
0.16	4.66	1.07	3.28	0.08	6.01	1.89	184.00
0.23	4.58	1.25	3.34	0.12	5.90	2.19	197.00
0.28	4.53	1.36	3.37	0.14	5.85	2.35	192.00
0.11	4.73	0.92	3.23	0.06	6.10	1.64	211.00
0.16	4.65	1.09	3.29	0.09	5.99	1.94	195.00
0.15	4.67	1.05	3.42	0.18	5.77	2.62	156.00
0.05	4.84	0.73	3.15	0.03	6.26	1.27	166.00
0.02	4.94	0.56	3.09	0.01	6.38	1.01	162.00
0.02	4.92	0.60	3.37	0.14	5.85	2.35	162.00
0.00	5.02	0.45	3.04	0.00	6.48	0.81	161.00
0.02	5.28	0.17	2.89	0.01	6.82	0.32	169.00
0.06	5.44	0.06	2.80	0.04	7.04	0.12	170.00
0.24	5.80	0.01	2.62	0.14	7.52	0.02	146.00
0.44	6.09	0.16	2.50	0.24	7.88	0.25	176.00
0.51	6.18	0.24	2.46	0.28	8.01	0.39	178.00
0.63	6.33	0.40	2.40	0.35	8.21	0.68	151.00
1.03	6.77	1.17	2.24	0.56	8.79	1.98	148.00
1.22	6.98	1.65	2.18	0.66	9.03	2.72	152.00
1.84	7.61	3.68	1.99	1.00	9.89	6.30	145.00
2.03	7.81	4.47	1.94	1.10	10.15	7.64	151.00
2.54	8.33	6.98	1.64	1.82	12.00	21.30	141.00
3.67	9.55	14.85	1.58	1.99	12.46	25.71	148.00
0.03	5.32	0.14	2.87	0.01	6.87	0.27	184.00
0.00	5.10	0.35	2.99	0.00	6.59	0.63	157.00
0.05	4.84	0.73	3.15	0.03	6.26	1.27	145.00
0.00	5.08	0.37	3.00	0.00	6.57	0.66	163.00
0.02	5.28	0.17	2.89	0.01	6.82	0.32	145.00
0.11	5.56	0.02	2.74	0.06	7.19	0.04	149.00
0.03	5.33	0.13	2.86	0.02	6.89	0.24	131.00

0.09	5.51	0.03	2.76	0.05	7.14	0.06	149.00
0.17	5.68	0.00	2.68	0.10	7.35	0.00	179.00
0.19	5.71	0.00	2.67	0.10	7.38	0.00	183.00
0.11	5.56	0.02	2.74	0.06	7.19	0.04	177.00
0.08	5.48	0.04	2.78	0.04	7.09	0.09	165.00
0.20	5.72	0.00	2.66	0.11	7.41	0.00	151.00
0.08	5.47	0.05	2.79	0.04	7.06	0.10	153.00
0.13	5.60	0.01	2.72	0.07	7.24	0.02	166.00
0.11	5.54	0.02	2.75	0.06	7.17	0.05	152.00
0.09	5.50	0.04	2.77	0.05	7.11	0.07	155.00
0.03	5.34	0.12	2.85	0.02	6.92	0.22	126.00
0.08	5.48	0.04	2.78	0.04	7.09	0.09	134.00
0.19	5.71	0.00	2.67	0.10	7.38	0.00	141.00
0.21	5.74	0.00	2.65	0.12	7.44	0.00	137.00
0.14	5.61	0.01	2.71	0.08	7.27	0.01	133.00
0.23	5.77	0.01	2.64	0.12	7.46	0.01	136.00
0.21	5.74	0.00	2.65	0.12	7.44	0.00	130.00
2.12	7.89	4.86	1.74	1.56	11.31	15.42	158.00
0.21	5.74	0.00	2.80	0.04	7.04	0.12	154.00
0.33	5.93	0.06	2.57	0.18	7.67	0.08	194.00
0.35	5.97	0.08	2.55	0.19	7.73	0.12	177.00
0.46	6.10	0.17	2.49	0.25	7.91	0.28	141.00
0.86	6.58	0.80	2.31	0.46	8.53	1.30	152.00
0.82	6.54	0.72	2.32	0.45	8.49	1.22	149.00
0.84	6.56	0.76	2.32	0.45	8.49	1.22	133.00
0.84	6.56	0.76	2.32	0.45	8.49	1.22	135.00
1.26	7.02	1.77	2.16	0.69	9.12	3.00	165.00
2.00	7.78	4.35	1.95	1.08	10.10	7.35	160.00
2.45	8.24	6.47	1.84	1.32	10.70	10.98	153.00
3.04	8.86	10.05	1.71	1.64	11.51	17.02	149.00
2.84	8.64	8.71	1.75	1.54	11.25	14.92	156.00
3.94	9.86	17.37	1.53	2.13	12.86	30.00	163.00
4.10	10.05	18.98	1.50	2.22	13.12	32.87	143.00
1.31	7.07	1.90	2.15	0.71	9.16	3.15	142.00
0.77	6.48	0.62	2.34	0.42	8.42	1.07	176.00
0.75	6.46	0.59	2.35	0.41	8.38	0.99	168.00
0.60	6.29	0.36	2.42	0.33	8.14	0.57	195.00
	n z O <sub>2</sub>		CO <sub>2</sub>		n z CO <sub>2</sub>		CO
			%				ppm

5.691281039

2.99047059

7.3849559

173.317647

2.718048069

1.55263073

4.873063105

1517.48123

228.3160378

130.420981

409.3373008

127468.424

1.648650378

1.24604604

2.207501553

38.9548615

0.289680015

0.41667223

0.298918718

0.22475993

0.357642481

0.27030534

0.478874322

8.45049593

10.04784689

7.48

13.11858156

329

2.054794521

1.5

2.648875488

126

CO

CO

CO (O2=10%)

NO

NO

NO (O2=10%)

SO2

SO2

ppm

mg.m-3

mg.m-3

ppm

mg.m-3

mg.m-3

ppm

mg.m-3

173.318

216.724

624.832

53.624

71.809

214.207

0.000

0.000

1517.481

2372.758

18180.897

5.499

9.862

4131.132

0.000

0.000

38.955

48.711

134.837

2.345

3.140

64.274

0.000

0.000

0.225

0.225

0.216

0.044

0.044

0.300

#DIV/0!

#DIV/0!

329.000

411.397

1052.606

58.000

77.670

408.788

0.000

0.000

126.000

157.556

391.100

49.000

65.618

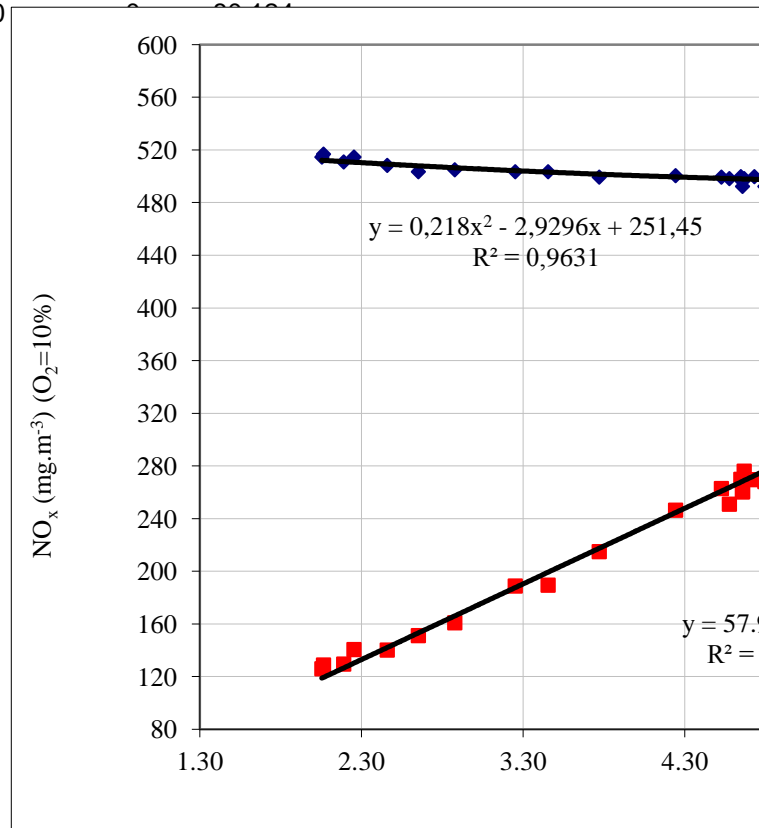
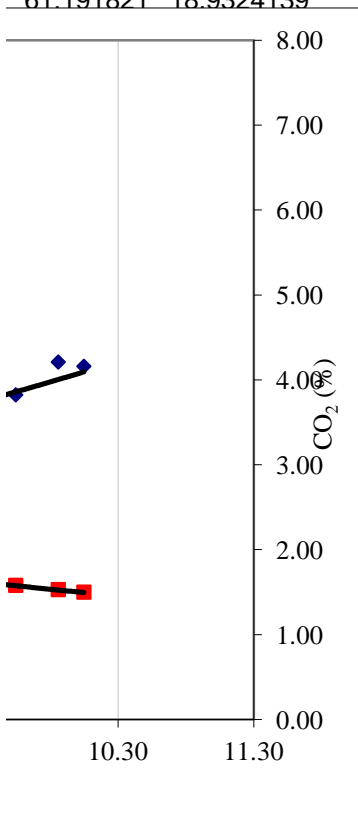
82.156

0.000

0.000

CO	NOx	SO2
173.318	53.624	
0.7637118	0.23628823	
76.371177	23.6288232	
61.191821	18.9324139	

HCl		
0.000	0.000	226.941 ppm
0	0	1
0	0	100
0	0	226.941



combustion

Figure 2. Emission concentration of Nox and theflue gas tempe

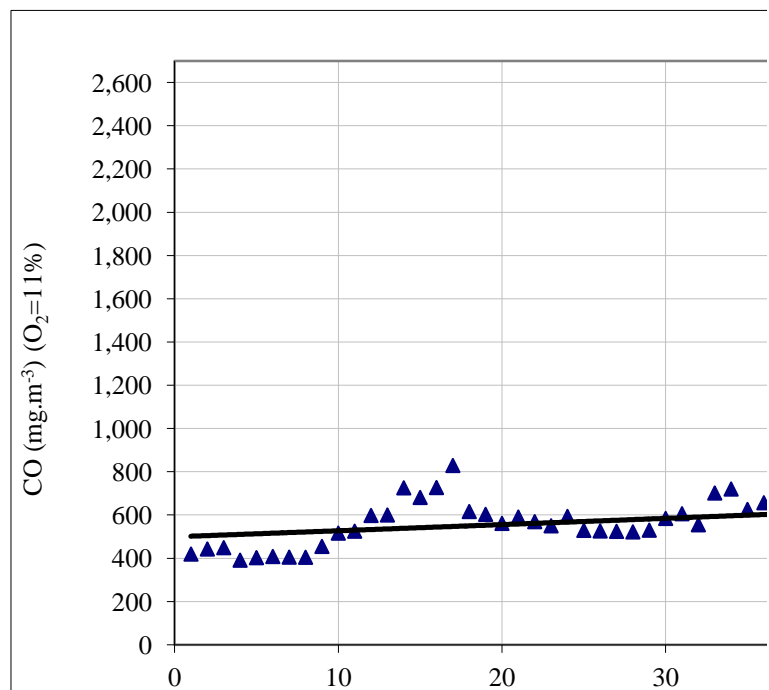
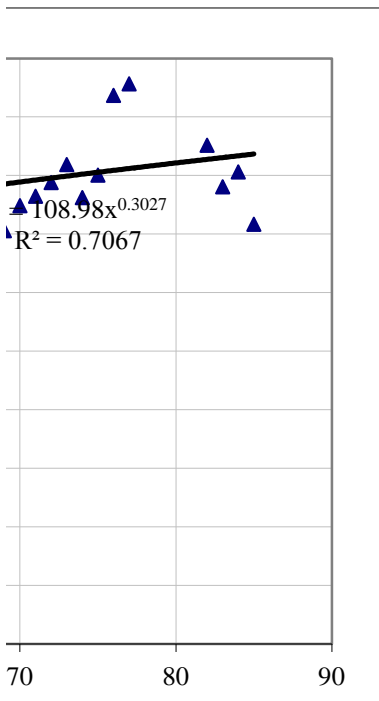




Figure 4. Concentration of CO depending on time



$(x-r)^2$	CO	$(x-r)^2$	CO	$(x-r)^2$	NO	$(x-r)^2$	NO
	mg.m-3		mg.m-3		ppm		mg.m-3
18682.07	387.64	29211.58	419.27	42253.93	58.00	19.15	77.67
24237.00	411.40	37897.36	442.80	33137.51	57.00	11.40	76.33
19511.16	391.39	30507.97	448.94	30939.80	55.00	1.89	73.65
8405.65	331.37	13143.22	391.10	54630.76	58.00	19.15	77.67
5880.18	312.61	9194.35	402.66	49359.89	53.00	0.39	70.97
3804.71	293.85	5949.11	408.13	46959.04	53.00	0.39	70.97
1737.42	268.85	2716.66	405.11	48277.67	52.00	2.64	69.63
278.30	237.58	435.16	404.56	48521.51	54.00	0.14	72.31
766.31	251.34	1198.22	454.73	28935.94	51.00	6.88	68.30
1273.23	261.34	1990.84	516.12	11818.81	53.00	0.39	70.97
245.94	236.33	384.55	525.19	9929.06	54.00	0.14	72.31
514.49	245.09	804.46	597.77	732.12	52.00	2.64	69.63
3100.52	286.35	4848.03	600.00	616.64	49.00	21.38	65.62
349.03	240.09	545.75	725.53	10140.81	54.00	0.14	72.31
387.40	241.34	605.74	681.00	3154.82	49.00	21.38	65.62
160.84	232.58	251.50	727.00	10438.26	52.00	2.64	69.63
114.11	230.08	178.43	829.00	41684.50	52.00	2.64	69.63
245.94	236.33	384.55	616.04	77.35	49.00	21.38	65.62
349.03	240.09	545.75	602.95	478.61	52.00	2.64	69.63
114.11	230.08	178.43	561.18	4052.11	52.00	2.64	69.63
560.85	246.34	876.96	590.35	1188.86	51.00	6.88	68.30
349.03	240.09	545.75	569.17	3098.42	54.00	0.14	72.31
1419.96	263.84	2220.27	550.00	5599.85	53.00	0.39	70.97
470.12	243.84	735.09	593.41	987.43	54.00	0.14	72.31
299.90	195.07	468.93	529.00	9183.81	55.00	1.89	73.65
53.55	207.57	83.73	526.11	9746.17	51.00	6.88	68.30
128.09	202.57	200.28	524.30	10105.75	53.00	0.39	70.97
128.09	202.57	200.28	521.85	10605.52	50.00	13.13	66.96
151.72	201.32	237.24	529.79	9032.18	52.00	2.64	69.63
18.64	211.33	29.15	584.07	1661.94	50.00	13.13	66.96
11.01	212.58	17.21	605.79	362.75	51.00	6.88	68.30
746.25	182.57	1166.85	554.76	4910.66	54.00	0.14	72.31
7.20	220.08	11.25	701.70	5908.63	52.00	2.64	69.63
21.92	222.58	34.28	720.11	9077.87	51.00	6.88	68.30
498.08	188.82	778.80	625.60	0.59	56.00	5.65	74.99
640.98	185.07	1002.25	656.69	1014.67	54.00	0.14	72.31
454.44	190.07	710.57	694.60	4867.57	56.00	5.65	74.99
801.89	181.31	1253.85	722.63	9564.65	55.00	1.89	73.65
498.08	188.82	778.80	772.12	21692.47	53.00	0.39	70.97
1044.43	176.31	1633.09	850.00	50700.55	51.00	6.88	68.30
640.98	185.07	1002.25	956.00	109672.13	51.00	6.88	68.30
114.11	230.08	178.43	640.74	252.90	49.00	21.38	65.62
266.27	196.32	416.34	524.16	10135.78	54.00	0.14	72.31
801.89	181.31	1253.85	550.00	5599.85	53.00	0.39	70.97
106.45	203.82	166.45	542.87	6717.90	50.00	13.13	66.96
801.89	181.31	1253.85	571.00	2897.90	55.00	1.89	73.65
591.35	186.32	924.64	542.19	6829.58	55.00	1.89	73.65
1790.78	163.81	2800.10	562.00	3947.88	57.00	11.40	76.33

591.35	186.32	924.64	537.92	7553.43	53.00	0.39	70.97
32.29	223.83	50.49	665.44	1649.02	52.00	2.64	69.63
93.75	228.83	146.59	684.01	3501.75	53.00	0.39	70.97
13.56	221.33	21.20	644.08	370.45	54.00	0.14	72.31
69.18	206.32	108.18	592.57	1040.56	51.00	6.88	68.30
498.08	188.82	778.80	565.94	3468.55	55.00	1.89	73.65
412.81	191.32	645.47	548.05	5895.93	54.00	0.14	72.31
53.55	207.57	83.73	608.88	254.34	54.00	0.14	72.31
454.44	190.07	710.57	551.65	5355.90	53.00	0.39	70.97
335.54	193.82	524.65	558.12	4450.77	54.00	0.14	72.31
2238.96	157.56	3500.87	558.00	4466.54	55.00	1.89	73.65
1545.88	167.56	2417.16	588.00	1356.61	56.00	5.65	74.99
1044.43	176.31	1633.09	584.00	1667.27	53.00	0.39	70.97
1318.97	171.31	2062.37	592.00	1077.95	58.00	19.15	77.67
1625.51	166.31	2541.68	571.00	2897.90	54.00	0.14	72.31
1392.61	170.06	2177.50	592.00	1077.95	56.00	5.65	74.99
1876.42	162.56	2934.00	613.00	140.00	54.00	0.14	72.31
234.63	197.57	366.87	817.02	36936.55	49.00	21.38	65.62
373.17	192.57	583.50	578.76	2122.78	54.00	0.14	72.31
427.76	242.59	668.85	753.80	16632.75	52.00	2.64	69.63
13.56	221.33	21.20	691.65	4465.05	55.00	1.89	73.65
1044.43	176.31	1633.09	622.00	8.02	57.00	11.40	76.33
454.44	190.07	710.57	655.41	934.78	54.00	0.14	72.31
591.35	186.32	924.64	638.47	185.93	56.00	5.65	74.99
1625.51	166.31	2541.68	571.69	2824.25	58.00	19.15	77.67
1468.24	168.81	2295.77	580.29	1984.42	54.00	0.14	72.31
69.18	206.32	108.18	759.05	18014.49	53.00	0.39	70.97
177.36	200.07	277.32	815.11	36204.06	56.00	5.65	74.99
412.81	191.32	645.47	825.29	40185.20	54.00	0.14	72.31
591.35	186.32	924.64	909.00	80751.35	57.00	11.40	76.33
299.90	195.07	468.93	883.03	66666.79	56.00	5.65	74.99
106.45	203.82	166.45	1052.61	182990.31	54.00	0.14	72.31
919.16	178.81	1437.21	1040.00	172364.32	58.00	19.15	77.67
980.80	177.56	1533.59	657.64	1076.50	56.00	5.65	74.99
7.20	220.08	11.25	747.18	14969.07	56.00	5.65	74.99
28.28	210.08	44.21	711.02	7428.87	58.00	19.15	77.67
470.12	243.84	735.09	677.00	2721.48	53.00	0.39	70.97
	CO		CO (O2=10%)		NO		NO
	mg.m <sup>-3</sup>		mg.m <sup>-3</sup>		ppm		mg.m <sup>-3</sup>

216.7244328

53.6235294

71.8091083

2372.758346

18180.8966

5.49943978

9.86203929

199311.701

1527195.31

461.952941

828.4113

48.71096741

134.836555

2.34508844

3.1403884

0.224759926

0.21579643

0.04373245

0.04373245

10.56689246

29.2501556

0.50872111

0.68124589

411.396875

1052.60584

58

77.6697903

157.55625

391.099929

49

65.6175814

SO2 (O2=10%)

NO2

NO2

NO2 (O2=10%)

HCl

HCl

HCl (O2=10%)

NOx

mg.m-3

ppm

mg.m-3

mg.m-3

mg.m-2

mg.m-3

mg.m-3

ppm

0.000

0.000

0.000

0.000

0.000

0.000

0.000

53.624

0.000

0.000

0.000

0.000

0.000

0.000

0.000

5.499

0.000

0.000

0.000

0.000

0.000

0.000

0.000

2.345

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

0.044

0.000

0.000

0.000

0.000

0.000

0.000

0.000

58.000

0.000

0.000

0.000

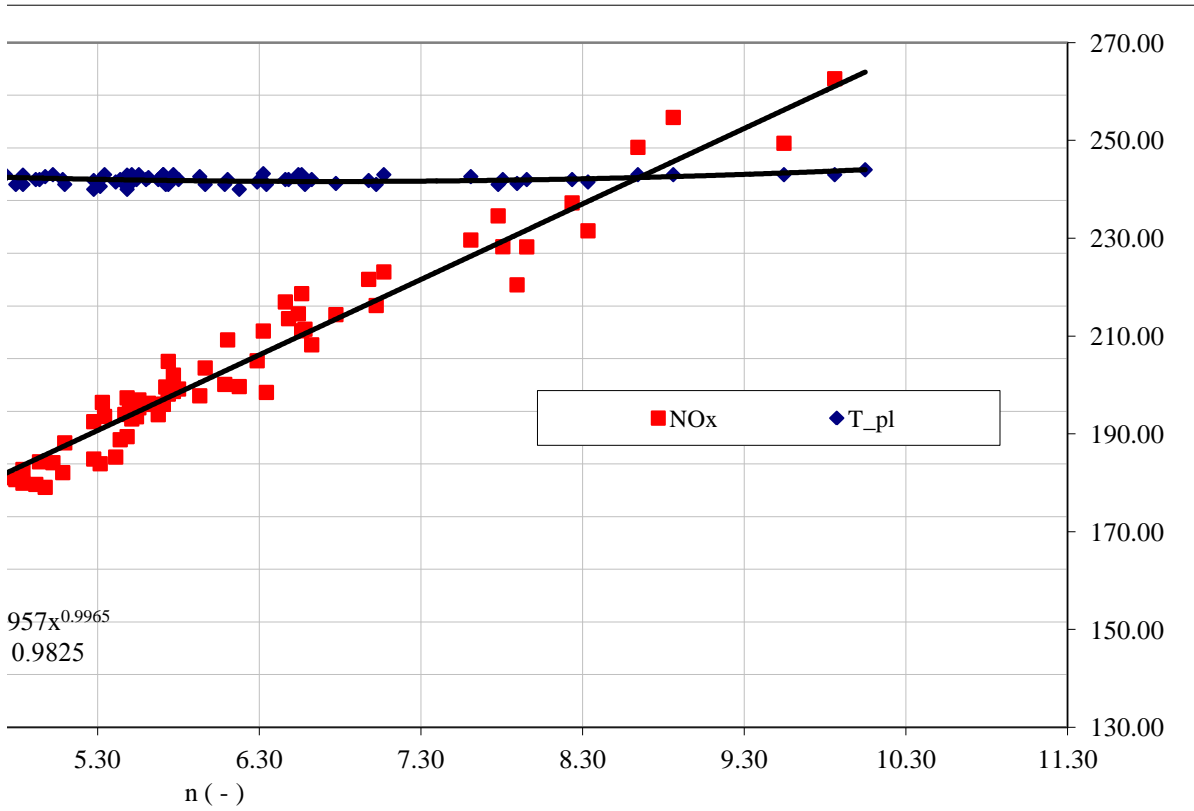
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0.000

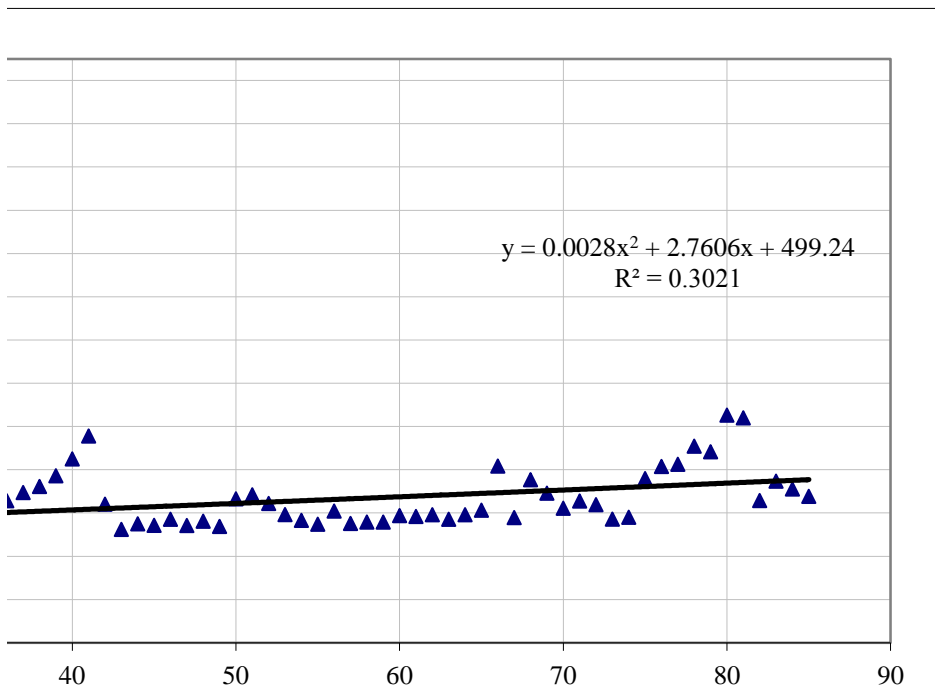
0.000

0.000

49.000



temperature depending on the Excess air ratio during woody pellets combustion



Time ( min )

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$(x_i-x)^2$	NO	$(x_i-x)^2$	SO <sub>2</sub>	$(x_i-x)^2$	SO <sub>2</sub>	$(x_i-x)^2$	SO <sub>2</sub>	$(x_i-x)^2$
	mg.m-3		ppm		mg.m-3		mg.m-3	
34.35	84.01	16951.74	0.00	0.00	0.00	0.00	0.00	0.00
20.44	82.16	17437.52	0.00	0.00	0.00	0.00	0.00	0.00
3.40	84.48	16828.87	0.00	0.00	0.00	0.00	0.00	0.00
34.35	91.67	15015.35	0.00	0.00	0.00	0.00	0.00	0.00
0.70	91.42	15077.10	0.00	0.00	0.00	0.00	0.00	0.00
0.70	98.58	13370.83	0.00	0.00	0.00	0.00	0.00	0.00
4.73	104.93	11941.69	0.00	0.00	0.00	0.00	0.00	0.00
0.25	123.13	8294.37	0.00	0.00	0.00	0.00	0.00	0.00
12.34	123.56	8216.68	0.00	0.00	0.00	0.00	0.00	0.00
0.70	140.16	5482.39	0.00	0.00	0.00	0.00	0.00	0.00
0.25	160.70	2863.47	0.00	0.00	0.00	0.00	0.00	0.00
4.73	169.84	1968.35	0.00	0.00	0.00	0.00	0.00	0.00
38.34	186.03	794.01	0.00	0.00	0.00	0.00	0.00	0.00
0.25	218.53	18.68	0.00	0.00	0.00	0.00	0.00	0.00
38.34	218.06	14.88	0.00	0.00	0.00	0.00	0.00	0.00
4.73	241.64	752.30	0.00	0.00	0.00	0.00	0.00	0.00
4.73	290.15	5766.62	0.00	0.00	0.00	0.00	0.00	0.00
38.34	171.04	1863.34	0.00	0.00	0.00	0.00	0.00	0.00
4.73	174.88	1546.46	0.00	0.00	0.00	0.00	0.00	0.00
4.73	169.84	1968.35	0.00	0.00	0.00	0.00	0.00	0.00
12.34	163.67	2553.84	0.00	0.00	0.00	0.00	0.00	0.00
0.25	171.43	1829.72	0.00	0.00	0.00	0.00	0.00	0.00
0.70	175.84	1472.31	0.00	0.00	0.00	0.00	0.00	0.00
0.25	175.98	1461.07	0.00	0.00	0.00	0.00	0.00	0.00
3.40	180.04	1167.47	0.00	0.00	0.00	0.00	0.00	0.00
12.34	173.10	1689.82	0.00	0.00	0.00	0.00	0.00	0.00
0.70	183.70	930.85	0.00	0.00	0.00	0.00	0.00	0.00
23.55	172.49	1740.51	0.00	0.00	0.00	0.00	0.00	0.00
4.73	183.25	958.37	0.00	0.00	0.00	0.00	0.00	0.00
23.55	185.06	849.79	0.00	0.00	0.00	0.00	0.00	0.00
12.34	194.63	383.45	0.00	0.00	0.00	0.00	0.00	0.00
0.25	219.74	30.57	0.00	0.00	0.00	0.00	0.00	0.00
4.73	222.02	61.11	0.00	0.00	0.00	0.00	0.00	0.00
12.34	220.96	45.56	0.00	0.00	0.00	0.00	0.00	0.00
10.13	248.47	1173.64	0.00	0.00	0.00	0.00	0.00	0.00
0.25	256.60	1796.74	0.00	0.00	0.00	0.00	0.00	0.00
10.13	274.06	3581.77	0.00	0.00	0.00	0.00	0.00	0.00
3.40	293.54	6293.99	0.00	0.00	0.00	0.00	0.00	0.00
0.70	290.23	5779.23	0.00	0.00	0.00	0.00	0.00	0.00
12.34	298.12	7040.77	0.00	0.00	0.00	0.00	0.00	0.00
12.34	341.48	16198.10	0.00	0.00	0.00	0.00	0.00	0.00
38.34	182.73	990.67	0.00	0.00	0.00	0.00	0.00	0.00
0.25	193.07	446.82	0.00	0.00	0.00	0.00	0.00	0.00
0.70	179.89	1177.80	0.00	0.00	0.00	0.00	0.00	0.00
23.55	178.34	1286.83	0.00	0.00	0.00	0.00	0.00	0.00
3.40	203.56	113.33	0.00	0.00	0.00	0.00	0.00	0.00
3.40	214.33	0.02	0.00	0.00	0.00	0.00	0.00	0.00
20.44	213.11	1.21	0.00	0.00	0.00	0.00	0.00	0.00

0.70	204.91	86.40	0.00	0.00	0.00	0.00	0.00	0.00
4.73	207.02	51.62	0.00	0.00	0.00	0.00	0.00	0.00
0.70	212.15	4.23	0.00	0.00	0.00	0.00	0.00	0.00
0.25	210.44	14.23	0.00	0.00	0.00	0.00	0.00	0.00
12.34	196.15	326.07	0.00	0.00	0.00	0.00	0.00	0.00
3.40	220.76	42.89	0.00	0.00	0.00	0.00	0.00	0.00
0.25	207.15	49.85	0.00	0.00	0.00	0.00	0.00	0.00
0.25	212.12	4.36	0.00	0.00	0.00	0.00	0.00	0.00
0.70	205.99	67.47	0.00	0.00	0.00	0.00	0.00	0.00
0.25	208.23	35.71	0.00	0.00	0.00	0.00	0.00	0.00
3.40	206.15	64.90	0.00	0.00	0.00	0.00	0.00	0.00
10.13	215.38	1.38	0.00	0.00	0.00	0.00	0.00	0.00
0.70	212.15	4.23	0.00	0.00	0.00	0.00	0.00	0.00
34.35	233.43	369.65	0.00	0.00	0.00	0.00	0.00	0.00
0.25	212.69	2.31	0.00	0.00	0.00	0.00	0.00	0.00
10.13	226.62	154.14	0.00	0.00	0.00	0.00	0.00	0.00
0.25	217.33	9.78	0.00	0.00	0.00	0.00	0.00	0.00
38.34	271.35	3265.37	0.00	0.00	0.00	0.00	0.00	0.00
0.25	217.33	9.78	0.00	0.00	0.00	0.00	0.00	0.00
4.73	216.38	4.72	0.00	0.00	0.00	0.00	0.00	0.00
3.40	230.16	254.60	0.00	0.00	0.00	0.00	0.00	0.00
20.44	244.08	892.40	0.00	0.00	0.00	0.00	0.00	0.00
0.25	249.36	1235.42	0.00	0.00	0.00	0.00	0.00	0.00
10.13	256.98	1829.51	0.00	0.00	0.00	0.00	0.00	0.00
34.35	266.99	2785.98	0.00	0.00	0.00	0.00	0.00	0.00
0.25	248.58	1181.25	0.00	0.00	0.00	0.00	0.00	0.00
0.70	261.11	2199.73	0.00	0.00	0.00	0.00	0.00	0.00
10.13	305.52	8338.16	0.00	0.00	0.00	0.00	0.00	0.00
0.25	311.94	9551.55	0.00	0.00	0.00	0.00	0.00	0.00
20.44	354.28	19619.56	0.00	0.00	0.00	0.00	0.00	0.00
10.13	339.47	15690.15	0.00	0.00	0.00	0.00	0.00	0.00
0.25	373.45	25357.77	0.00	0.00	0.00	0.00	0.00	0.00
34.35	408.79	37861.72	0.00	0.00	0.00	0.00	0.00	0.00
10.13	277.75	4037.19	0.00	0.00	0.00	0.00	0.00	0.00
10.13	254.60	1631.62	0.00	0.00	0.00	0.00	0.00	0.00
34.35	262.88	2369.24	0.00	0.00	0.00	0.00	0.00	0.00
0.70	233.75	381.80	0.00	0.00	0.00	0.00	0.00	0.00

NO (O2=10%)

mg.m<sup>-3</sup>

214.207481

4131.132321

347015.115

64.27388522

0.300054344

13.94296335

408.7883699

82.15628332

NOx  
mg.m-3

NOx (O2=10%)  
mg.m-3

ETA  
%

110.095

328.413

#DIV/0!

23.181

9710.500

#DIV/0!

4.815

98.542

#DIV/0!

0.044

0.300

#DIV/0!

119.080

626.736

0.000

100.602

125.958

0.000

SO<sub>2</sub>

ppm

0

0

0

0

#DIV/0!

0

0

0

SO<sub>2</sub>

mg.m<sup>-3</sup>

0

0

0

0

#DIV/0!

0

0

0

SO<sub>2</sub> (O2=10%)

mg.m<sup>-3</sup>

0

0

0

0

#DIV/0!

0

0

0

Temperature of the flue gases( $^{\circ}\text{C}$ )













$(x_i-x)^2$	HCl	$(x_i-x)^2$	NO <sub>x</sub>	$(x_i-x)^2$	NO <sub>x</sub>	$(x_i-x)^2$	NO <sub>x</sub>	$(x_i-x)^2$
	mg.m-3		ppm		mg.m-3		mg.m-3	
0.00	0.00	0.00	58.00	19.15	119.08	80.74	128.80	39846.19
0.00	0.00	0.00	57.00	11.40	117.03	48.06	125.96	40988.04
0.00	0.00	0.00	55.00	1.89	112.92	7.99	129.52	39557.36
0.00	0.00	0.00	58.00	19.15	119.08	80.74	140.54	35294.57
0.00	0.00	0.00	53.00	0.39	108.81	1.64	140.16	35439.71
0.00	0.00	0.00	53.00	0.39	108.81	1.64	151.13	31429.03
0.00	0.00	0.00	52.00	2.64	106.76	11.11	160.87	28069.74
0.00	0.00	0.00	54.00	0.14	110.87	0.60	188.78	19496.48
0.00	0.00	0.00	51.00	6.88	104.71	29.01	189.44	19313.85
0.00	0.00	0.00	53.00	0.39	108.81	1.64	214.89	12886.72
0.00	0.00	0.00	54.00	0.14	110.87	0.60	246.37	6730.77
0.00	0.00	0.00	52.00	2.64	106.76	11.11	260.39	4626.73
0.00	0.00	0.00	49.00	21.38	100.60	90.11	285.21	1866.38
0.00	0.00	0.00	54.00	0.14	110.87	0.60	335.04	43.90
0.00	0.00	0.00	49.00	21.38	100.60	90.11	334.33	34.97
0.00	0.00	0.00	52.00	2.64	106.76	11.11	370.46	1768.33
0.00	0.00	0.00	52.00	2.64	106.76	11.11	444.84	13554.83
0.00	0.00	0.00	49.00	21.38	100.60	90.11	262.23	4379.90
0.00	0.00	0.00	52.00	2.64	106.76	11.11	268.12	3635.06
0.00	0.00	0.00	52.00	2.64	106.76	11.11	260.39	4626.73
0.00	0.00	0.00	51.00	6.88	104.71	29.01	250.93	6002.96
0.00	0.00	0.00	54.00	0.14	110.87	0.60	262.83	4300.87
0.00	0.00	0.00	53.00	0.39	108.81	1.64	269.59	3460.76
0.00	0.00	0.00	54.00	0.14	110.87	0.60	269.81	3434.33
0.00	0.00	0.00	55.00	1.89	112.92	7.99	276.03	2744.22
0.00	0.00	0.00	51.00	6.88	104.71	29.01	265.39	3972.03
0.00	0.00	0.00	53.00	0.39	108.81	1.64	281.64	2188.01
0.00	0.00	0.00	50.00	13.13	102.66	55.35	264.45	4091.19
0.00	0.00	0.00	52.00	2.64	106.76	11.11	280.95	2252.71
0.00	0.00	0.00	50.00	13.13	102.66	55.35	283.72	1997.50
0.00	0.00	0.00	51.00	6.88	104.71	29.01	298.39	901.34
0.00	0.00	0.00	54.00	0.14	110.87	0.60	336.89	71.85
0.00	0.00	0.00	52.00	2.64	106.76	11.11	340.40	143.64
0.00	0.00	0.00	51.00	6.88	104.71	29.01	338.76	107.09
0.00	0.00	0.00	56.00	5.65	114.97	23.81	380.94	2758.71
0.00	0.00	0.00	54.00	0.14	110.87	0.60	393.40	4223.35
0.00	0.00	0.00	56.00	5.65	114.97	23.81	420.17	8419.19
0.00	0.00	0.00	55.00	1.89	112.92	7.99	450.05	14794.43
0.00	0.00	0.00	53.00	0.39	108.81	1.64	444.97	13584.47
0.00	0.00	0.00	51.00	6.88	104.71	29.01	457.06	16549.81
0.00	0.00	0.00	51.00	6.88	104.71	29.01	523.54	38074.71
0.00	0.00	0.00	49.00	21.38	100.60	90.11	280.16	2328.64
0.00	0.00	0.00	54.00	0.14	110.87	0.60	296.01	1050.28
0.00	0.00	0.00	53.00	0.39	108.81	1.64	275.80	2768.51
0.00	0.00	0.00	50.00	13.13	102.66	55.35	273.42	3024.78
0.00	0.00	0.00	55.00	1.89	112.92	7.99	312.09	266.39
0.00	0.00	0.00	55.00	1.89	112.92	7.99	328.60	0.04
0.00	0.00	0.00	57.00	11.40	117.03	48.06	326.72	2.85

0.00	0.00	0.00	53.00	0.39	108.81	1.64	314.16	203.10
0.00	0.00	0.00	52.00	2.64	106.76	11.11	317.40	121.33
0.00	0.00	0.00	53.00	0.39	108.81	1.64	325.26	9.94
0.00	0.00	0.00	54.00	0.14	110.87	0.60	322.63	33.45
0.00	0.00	0.00	51.00	6.88	104.71	29.01	300.73	766.46
0.00	0.00	0.00	55.00	1.89	112.92	7.99	338.45	100.81
0.00	0.00	0.00	54.00	0.14	110.87	0.60	317.59	117.17
0.00	0.00	0.00	54.00	0.14	110.87	0.60	325.21	10.25
0.00	0.00	0.00	53.00	0.39	108.81	1.64	315.82	158.59
0.00	0.00	0.00	54.00	0.14	110.87	0.60	319.25	83.93
0.00	0.00	0.00	55.00	1.89	112.92	7.99	316.06	152.54
0.00	0.00	0.00	56.00	5.65	114.97	23.81	330.21	3.23
0.00	0.00	0.00	53.00	0.39	108.81	1.64	325.26	9.94
0.00	0.00	0.00	58.00	19.15	119.08	80.74	357.89	868.89
0.00	0.00	0.00	54.00	0.14	110.87	0.60	326.08	5.44
0.00	0.00	0.00	56.00	5.65	114.97	23.81	347.45	362.31
0.00	0.00	0.00	54.00	0.14	110.87	0.60	333.21	22.99
0.00	0.00	0.00	49.00	21.38	100.60	90.11	416.02	7675.47
0.00	0.00	0.00	54.00	0.14	110.87	0.60	333.21	22.99
0.00	0.00	0.00	52.00	2.64	106.76	11.11	331.74	11.09
0.00	0.00	0.00	55.00	1.89	112.92	7.99	352.88	598.46
0.00	0.00	0.00	57.00	11.40	117.03	48.06	374.21	2097.65
0.00	0.00	0.00	54.00	0.14	110.87	0.60	382.30	2903.94
0.00	0.00	0.00	56.00	5.65	114.97	23.81	393.99	4300.39
0.00	0.00	0.00	58.00	19.15	119.08	80.74	409.34	6548.64
0.00	0.00	0.00	54.00	0.14	110.87	0.60	381.11	2776.61
0.00	0.00	0.00	53.00	0.39	108.81	1.64	400.32	5170.62
0.00	0.00	0.00	56.00	5.65	114.97	23.81	468.41	19599.40
0.00	0.00	0.00	54.00	0.14	110.87	0.60	478.25	22451.55
0.00	0.00	0.00	57.00	11.40	117.03	48.06	543.16	46117.06
0.00	0.00	0.00	56.00	5.65	114.97	23.81	520.46	36880.73
0.00	0.00	0.00	54.00	0.14	110.87	0.60	572.56	59605.12
0.00	0.00	0.00	58.00	19.15	119.08	80.74	626.74	88996.48
0.00	0.00	0.00	56.00	5.65	114.97	23.81	425.83	9489.69
0.00	0.00	0.00	56.00	5.65	114.97	23.81	390.34	3835.24
0.00	0.00	0.00	58.00	19.15	119.08	80.74	403.04	5569.07
0.00	0.00	0.00	53.00	0.39	108.81	1.64	358.37	897.44

HCl (O2=10%)

NO<sub>x</sub>

NO<sub>x</sub>

NO<sub>x</sub> (O2=10%)

mg.m<sup>-3</sup>

ppm

mg.m<sup>-3</sup>

mg.m<sup>-3</sup>

0

53.6235294

110.094538

328.413402

0

5.49943978

23.1813756

9710.49975

0

461.952941

1947.23555

815681.979

0

2.34508844

4.8147041

98.541868

#DIV/0!

0.04373245

0.04373245

0.30005434

0

0.50872111

1.04445597

21.3767325

0

58

119.079875

626.736185

0

49

100.601963

125.958367









