

CO_{2max}	Theoretical volu	20.1
V^s_{spmin}	The theoretical	6.89
L_{min}	The theoretical	7.05

Number of measurements	Time	Date	T_ok °C	(x _i -x) ²	T_pl °C	(x _i -x) ²	O ₂ %
1	10:13:14		29.00	48.02	190.00	97.80	10.83
2	10:14:14		29.00	48.02	192.40	151.03	10.78
3	10:15:14		29.00	48.02	190.00	97.80	11.41
4	10:16:14		29.00	48.02	193.00	166.14	11.68
5	10:17:14		30.00	35.16	191.00	118.58	12.46
6	10:18:14		30.00	35.16	191.00	118.58	13.08
7	10:19:14		31.00	24.30	189.00	79.02	13.70
8	10:20:14		31.00	24.30	188.00	62.24	14.54
9	10:21:14		32.00	15.44	188.20	65.44	14.92
10	10:22:14		32.00	15.44	187.80	59.13	15.43
11	10:23:14		32.00	15.44	188.10	63.83	16.05
12	10:24:14		32.00	15.44	185.00	23.91	16.49
13	10:25:14		33.00	8.58	180.30	0.04	17.12
14	10:26:14		33.00	8.58	178.80	1.72	17.36
15	10:27:14		33.00	8.58	179.00	1.23	17.69
16	10:28:14		33.00	8.58	178.40	2.93	17.83
17	10:29:14		33.00	8.58	170.90	84.83	18.36
18	10:30:14		34.00	3.72	185.60	30.13	16.78
19	10:31:14		34.00	3.72	186.90	46.10	16.62
20	10:32:14		34.00	3.72	186.60	42.11	16.49
21	10:33:14		35.00	0.86	186.60	42.11	16.41
22	10:34:14		35.00	0.86	186.00	34.69	16.36
23	10:35:14		35.00	0.86	185.70	31.24	16.56
24	10:36:14		35.00	0.86	187.20	50.26	16.48
25	10:37:14		35.00	0.86	185.90	33.52	16.50
26	10:38:14		36.00	0.00	184.90	22.94	16.66
27	10:39:14		36.00	0.00	187.00	47.46	16.75
28	10:40:14		36.00	0.00	186.00	34.69	16.73
29	10:41:14		36.00	0.00	182.00	3.57	16.82
30	10:42:14		36.00	0.00	186.00	34.69	17.02
31	10:43:14		36.00	0.00	182.50	5.71	17.14
32	10:44:14		37.00	1.15	180.60	0.24	17.38
33	10:45:14		37.00	1.15	180.00	0.01	17.55
34	10:46:14		37.00	1.15	178.00	4.45	17.60
35	10:47:14		37.00	1.15	180.40	0.08	17.68
36	10:48:14		37.00	1.15	178.10	4.04	17.90
37	10:49:14		37.00	1.15	176.00	16.90	17.99
38	10:50:14		37.00	1.15	174.40	32.61	18.24
39	10:51:14		37.00	1.15	172.90	51.99	18.31
40	10:52:14		37.00	1.15	169.40	114.72	18.48
41	10:53:14		37.00	1.15	160.10	400.42	18.80
42	10:54:14		37.00	1.15	179.00	1.23	17.05
43	10:55:14		38.00	4.29	181.50	1.93	16.88
44	10:56:14		38.00	4.29	182.00	3.57	16.66
45	10:57:14		38.00	4.29	180.30	0.04	16.87
46	10:58:14		38.00	4.29	182.00	3.57	17.02
47	10:59:14		38.00	4.29	179.40	0.50	17.22
48	11:00:14		38.00	4.29	179.60	0.26	17.06
49	11:01:14		38.00	4.29	177.60	6.30	17.19
50	11:02:14		37.00	1.15	177.20	8.47	17.30

51	11:03:14	37.00	1.15	179.40	0.50	17.32
52	11:04:14	37.00	1.15	180.40	0.08	17.22
53	11:05:14	37.00	1.15	178.40	2.93	17.17
54	11:06:14	37.00	1.15	178.40	2.93	17.33
55	11:07:14	37.00	1.15	178.70	1.99	17.16
56	11:08:14	37.00	1.15	182.00	3.57	17.25
57	11:09:14	37.00	1.15	182.00	3.57	17.21
58	11:10:14	37.00	1.15	180.60	0.24	17.18
59	11:11:14	37.00	1.15	184.00	15.13	17.07
60	11:12:14	37.00	1.15	182.80	7.23	17.17
61	11:13:14	38.00	4.29	184.30	17.55	17.32
62	11:14:14	38.00	4.29	180.00	0.01	17.34
63	11:15:14	38.00	4.29	180.00	0.01	17.26
64	11:17:14	38.00	4.29	178.20	3.65	17.36
65	11:18:14	38.00	4.29	179.30	0.66	17.34
66	12:18:14	38.00	4.29	171.80	69.07	18.34
67	13:18:14	38.00	4.29	180.30	0.04	17.34
68	11:19:14	38.00	4.29	179.90	0.04	17.46
69	11:20:14	38.00	4.29	183.00	8.35	17.48
70	11:21:14	38.00	4.29	179.00	1.23	17.56
71	11:22:14	38.00	4.29	177.20	8.47	17.81
72	11:23:14	38.00	4.29	177.40	7.35	17.79
73	11:24:14	38.00	4.29	177.00	9.68	17.80
74	11:25:14	38.00	4.29	176.00	16.90	17.80
75	11:26:14	38.00	4.29	173.70	41.10	18.01
76	11:27:14	38.00	4.29	175.00	26.12	18.30
77	11:28:14	38.00	4.29	172.00	65.78	18.45
78	11:29:14	38.00	4.29	167.00	171.89	18.63
79	11:30:14	38.00	4.29	167.40	161.56	18.57
80	11:31:14	38.00	4.29	156.00	581.32	18.87
81	11:32:14	38.00	4.29	156.80	543.38	18.91
82	11:33:14	38.00	4.29	174.70	29.27	18.03
83	11:34:14	38.00	4.29	177.00	9.68	17.76
84	11:35:14	38.00	4.29	176.30	14.52	17.75
85	11:36:14	38.00	4.29	175.10	25.11	17.66

Number of measurements	Time	Date	T_ok		T_pl		O ₂
			°C		°C		%
Average			35.92941176		180.110588		16.8852941
s ²			7.066386555		49.4726246		2.85097283
Sum			593.5764706		4155.70047		239.481718
s			2.658267585		7.03367789		1.6884824
V			0.073985837		0.039052		0.09999722
Confident interval +/-			0.576659204		1.52581896		0.36628326
2			38		193		18.91
			29		156		10.78
		T_ok	T_pl	O ₂	n z O ₂	CO ₂	n z CO ₂
		°C	°C	%	0.000	%	0.000
Average		35.929	180.111	16.885	5.691	2.705	7.716
s ²		7.066	49.473	2.851	2.718	0.527	3.087
s		2.658	7.034	1.688	1.649	0.726	1.757
V		0.074	0.039	0.100	0.290	0.268	0.228
Max.		38.000	193.000	18.910	10.048	5.160	12.224
Min.		29.000	156.000	10.780	2.055	1.610	3.830

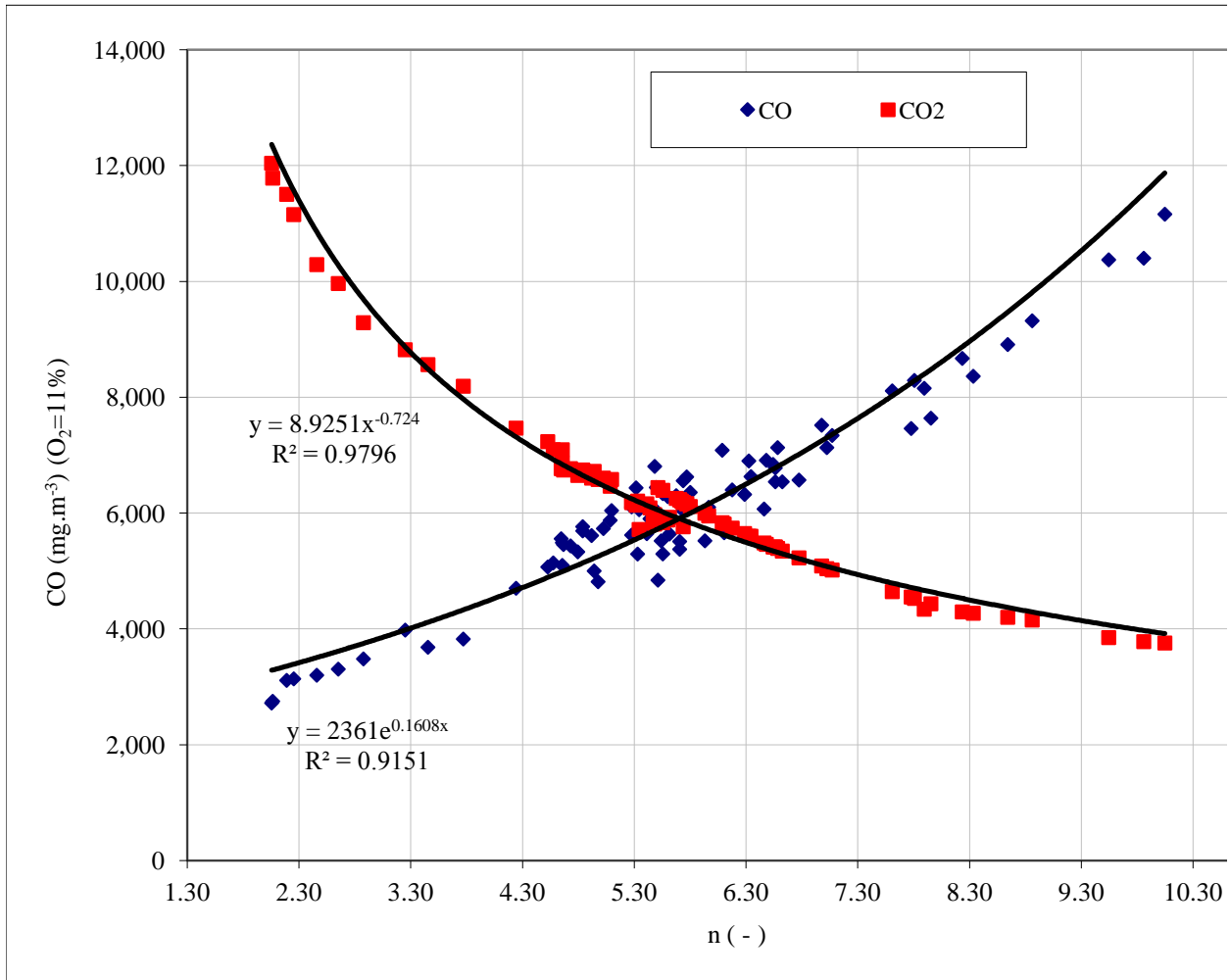
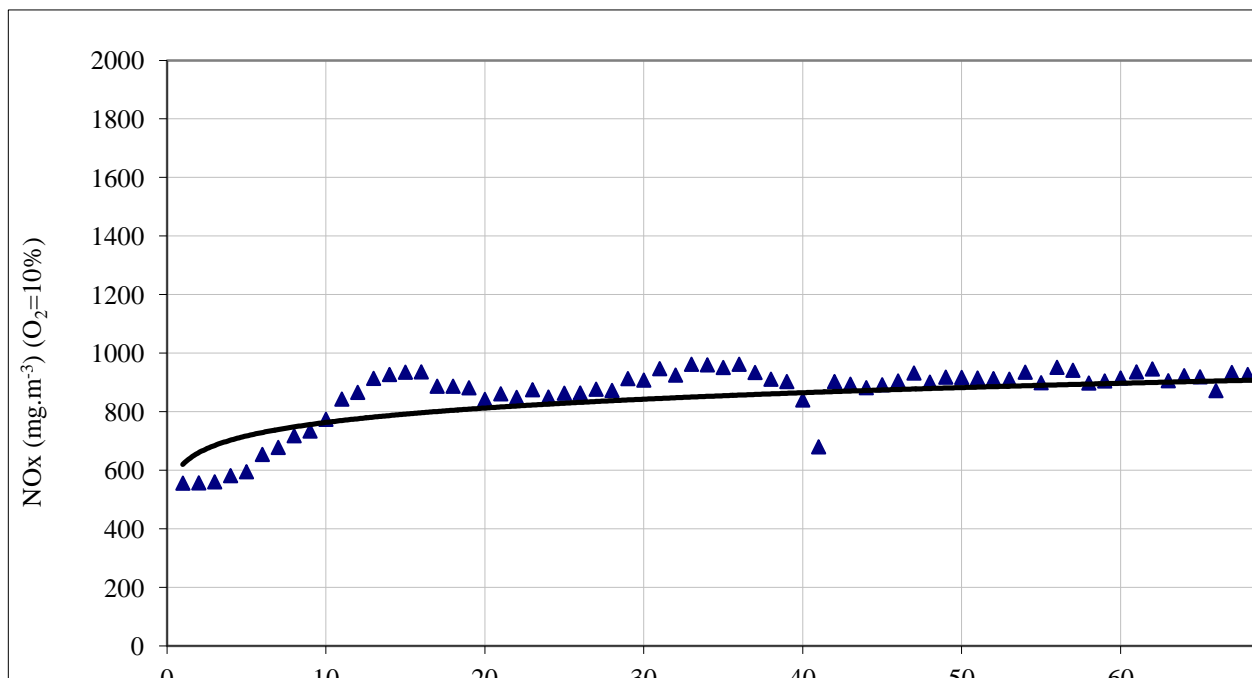


Figure 1. Emission concentration of CO and CO₂ depending on the Excess air ratio during Jatropa seed



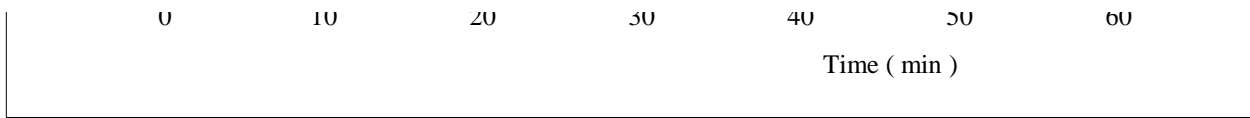


Figure 3. Concentration of Nox depending on time

$(x_i-x)^2$	n z O ₂	$(x_i-x)^2$	CO ₂	$(x_i-x)^2$	n z CO ₂	$(x_i-x)^2$	CO
			%				ppm
36.67	2.06	13.15	5.05	5.50	3.91	14.47	1260.00
37.27	2.05	13.22	5.16	6.03	3.83	15.10	1421.00
29.98	2.19	12.26	4.93	4.95	4.01	13.76	2169.00
27.10	2.25	11.82	4.78	4.30	4.13	12.84	2126.00
19.58	2.46	10.45	4.41	2.91	4.48	10.49	2344.00
14.48	2.65	9.24	4.27	2.45	4.62	9.57	1903.00
10.15	2.88	7.92	3.98	1.63	4.96	7.61	1848.00
5.50	3.25	5.96	3.78	1.16	5.22	6.23	1869.00
3.86	3.45	5.01	3.67	0.93	5.38	5.48	1628.00
2.12	3.77	3.69	3.51	0.65	5.62	4.40	1549.00
0.70	4.24	2.10	3.20	0.24	6.16	2.42	1692.00
0.16	4.66	1.07	2.94	0.06	6.70	1.02	1671.00
0.06	5.41	0.08	2.64	0.00	7.46	0.06	1592.00
0.23	5.77	0.01	2.64	0.00	7.46	0.06	2089.00
0.65	6.34	0.43	2.40	0.09	8.21	0.24	1904.00
0.89	6.62	0.87	2.29	0.17	8.60	0.78	1296.00
2.17	7.95	5.12	1.90	0.65	10.36	7.00	1466.00
0.01	4.98	0.51	2.82	0.01	6.99	0.53	1477.00
0.07	4.79	0.80	2.85	0.02	6.92	0.64	2237.00
0.16	4.66	1.07	3.04	0.11	6.48	1.52	1800.00
0.23	4.58	1.25	3.04	0.11	6.48	1.52	1715.00
0.28	4.53	1.36	3.10	0.16	6.36	1.84	1710.00
0.11	4.73	0.92	2.90	0.04	6.80	0.85	1754.00
0.16	4.65	1.09	2.90	0.04	6.80	0.85	1826.00
0.15	4.67	1.05	2.89	0.03	6.82	0.80	1785.00
0.05	4.84	0.73	2.89	0.03	6.82	0.80	1819.00
0.02	4.94	0.56	2.88	0.03	6.84	0.76	1545.00
0.02	4.92	0.60	2.83	0.02	6.96	0.57	1742.00
0.00	5.02	0.45	2.83	0.02	6.96	0.57	1742.00
0.02	5.28	0.17	2.65	0.00	7.44	0.08	1767.00
0.06	5.44	0.06	2.61	0.01	7.55	0.03	1656.00
0.24	5.80	0.01	2.62	0.01	7.52	0.04	1673.00
0.44	6.09	0.16	2.50	0.04	7.88	0.03	1777.00
0.51	6.18	0.24	2.46	0.06	8.01	0.09	2016.00
0.63	6.33	0.40	2.40	0.09	8.21	0.24	1874.00
1.03	6.77	1.17	2.24	0.22	8.79	1.16	1285.00
1.22	6.98	1.65	2.18	0.28	9.03	1.74	1645.00
1.84	7.61	3.68	1.99	0.51	9.89	4.74	1893.00
2.03	7.81	4.47	1.94	0.59	10.15	5.92	1303.00
2.54	8.33	6.98	1.83	0.77	10.76	9.25	1532.00
3.67	9.55	14.85	1.65	1.11	11.93	17.74	1659.00
0.03	5.32	0.14	2.63	0.01	7.49	0.05	1848.00
0.00	5.10	0.35	2.82	0.01	6.99	0.53	1810.00
0.05	4.84	0.73	2.89	0.03	6.82	0.80	1796.00
0.00	5.08	0.37	2.77	0.00	7.11	0.36	1764.00
0.02	5.28	0.17	2.65	0.00	7.44	0.08	1998.00
0.11	5.56	0.02	2.74	0.00	7.19	0.27	1455.00
0.03	5.33	0.13	2.66	0.00	7.41	0.10	1516.00
0.09	5.51	0.03	2.76	0.00	7.14	0.33	1341.00
0.17	5.68	0.00	2.68	0.00	7.35	0.13	2043.00

0.19	5.71	0.00	2.67	0.00	7.38	0.11	1438.00
0.11	5.56	0.02	2.50	0.04	7.88	0.03	1741.00
0.08	5.48	0.04	2.56	0.02	7.70	0.00	1688.00
0.20	5.72	0.00	2.66	0.00	7.41	0.10	1978.00
0.08	5.47	0.05	2.50	0.04	7.88	0.03	2027.00
0.13	5.60	0.01	2.52	0.03	7.82	0.01	1713.00
0.11	5.54	0.02	2.51	0.04	7.85	0.02	1521.00
0.09	5.50	0.04	2.51	0.04	7.85	0.02	1789.00
0.03	5.34	0.12	2.45	0.07	8.04	0.11	1731.00
0.08	5.48	0.04	2.49	0.05	7.91	0.04	1895.00
0.19	5.71	0.00	2.67	0.00	7.38	0.11	1057.00
0.21	5.74	0.00	2.65	0.00	7.44	0.08	1660.00
0.14	5.61	0.01	2.54	0.03	7.76	0.00	1533.00
0.23	5.77	0.01	2.64	0.00	7.46	0.06	1753.00
0.21	5.74	0.00	2.65	0.00	7.44	0.08	1745.00
2.12	7.89	4.86	1.86	0.71	10.58	8.22	1577.00
0.21	5.74	0.00	2.47	0.06	7.98	0.07	2123.00
0.33	5.93	0.06	2.57	0.02	7.67	0.00	1421.00
0.35	5.97	0.08	2.55	0.02	7.73	0.00	1186.00
0.46	6.10	0.17	2.49	0.05	7.91	0.04	2696.00
0.86	6.58	0.80	2.31	0.16	8.53	0.66	2147.00
0.82	6.54	0.72	2.32	0.15	8.49	0.60	1805.00
0.84	6.56	0.76	2.32	0.15	8.49	0.60	1207.00
0.84	6.56	0.76	2.32	0.15	8.49	0.60	1942.00
1.26	7.02	1.77	2.16	0.30	9.12	1.96	2073.00
2.00	7.78	4.35	1.95	0.57	10.10	5.67	1731.00
2.45	8.24	6.47	1.84	0.75	10.70	8.90	1382.00
3.04	8.86	10.05	1.78	0.86	11.06	11.17	1656.00
2.84	8.64	8.71	1.80	0.82	10.94	10.37	1945.00
3.94	9.86	17.37	1.62	1.18	12.15	19.65	1364.00
4.10	10.05	18.98	1.61	1.20	12.22	20.32	1901.00
1.31	7.07	1.90	2.15	0.31	9.16	2.08	1840.00
0.77	6.48	0.62	2.34	0.13	8.42	0.49	1628.00
0.75	6.46	0.59	2.35	0.13	8.38	0.44	973.00
0.60	6.29	0.36	2.42	0.08	8.14	0.18	1535.00
	n z O ₂		CO ₂		n z CO ₂		CO
			%				ppm

5.691281039

2.70517647

7.716115375

1718.01176

2.718048069

0.52657527

3.086529177

82121.7499

228.3160378

44.2323224

259.2684509

6898226.99

1.648650378

0.72565506

1.756852065

286.568927

0.289680015

0.26824685

0.22768608

0.16680266

0.357642481

0.15741668

0.381114723

62.1655285

10.04784689

5.16

12.22383155

2696

2.054794521

1.61

3.829638793

973

CO

CO

CO (O₂=10%)

NO

NO

NO (O₂=10%)NO₂NO₂

ppm

mg.m-3

mg.m-3

ppm

mg.m-3

mg.m-3

ppm

mg.m-3

1718.012

2148.282

6109.717

153.753

205.896

594.577

1.859

4.418

82121.750

128406.904

2571098.182

1050.641

1884.094

29241.200

0.242

34.608

286.569

358.339

1603.464

32.414

43.406

171.001

0.492

5.883

0.167

0.167

0.262

0.211

0.211

0.288

0.265

1.332

2696.000

3371.204

11160.000

249.000

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1188.482

3.000

57.274

973.000

1216.684

2720.000

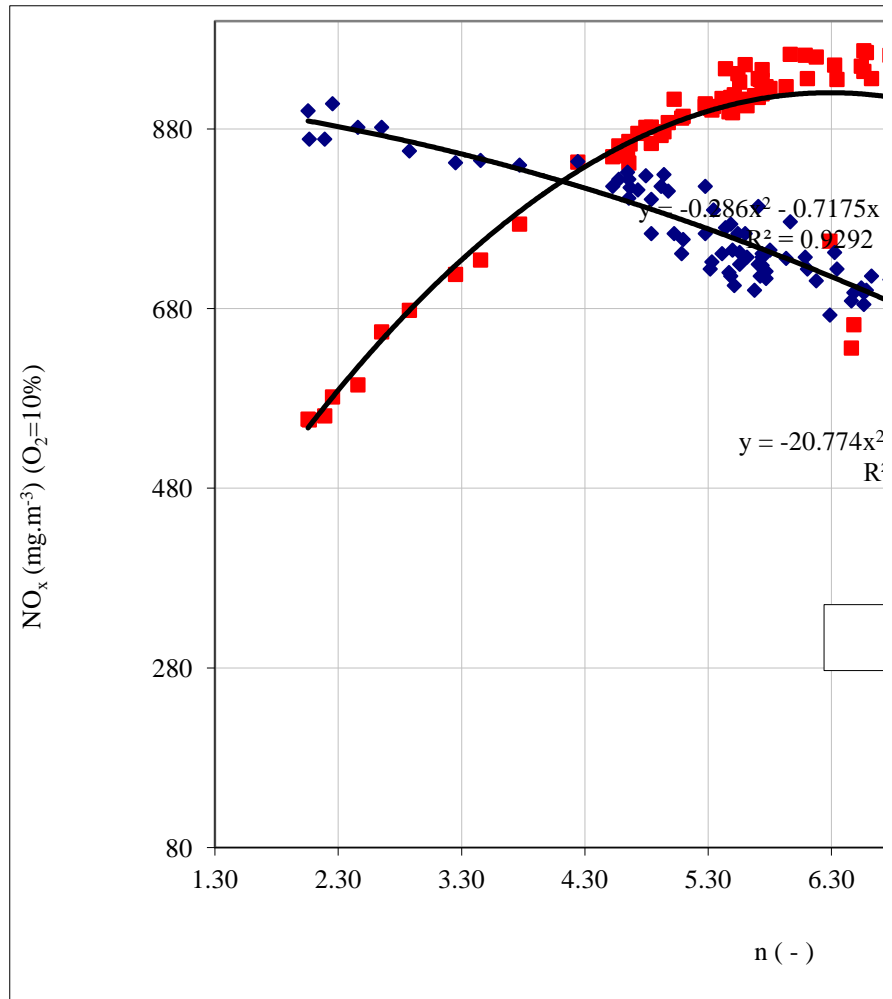
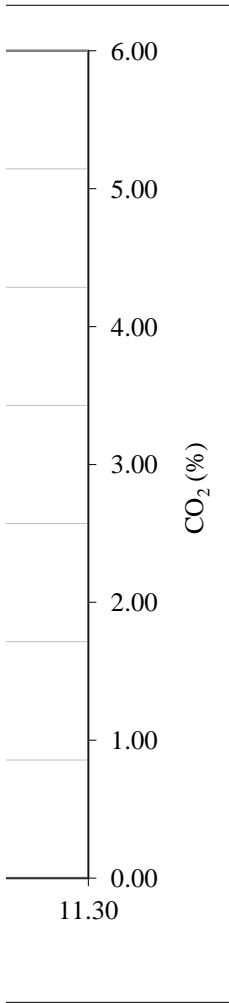
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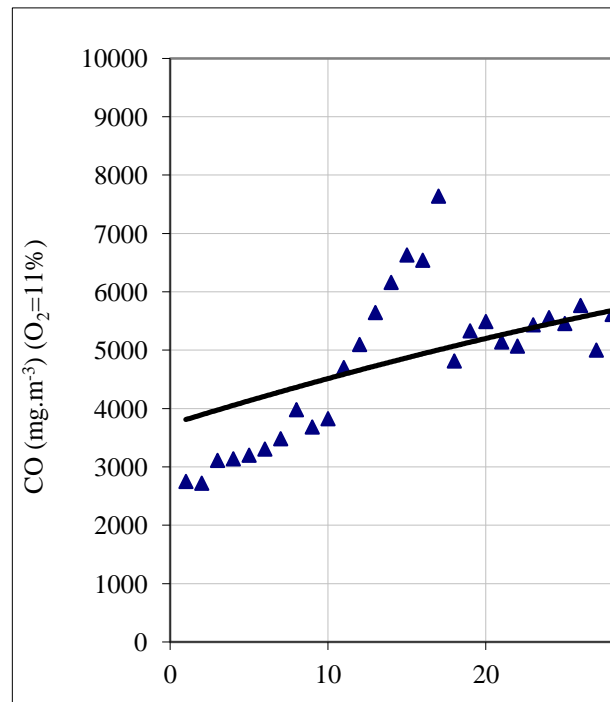
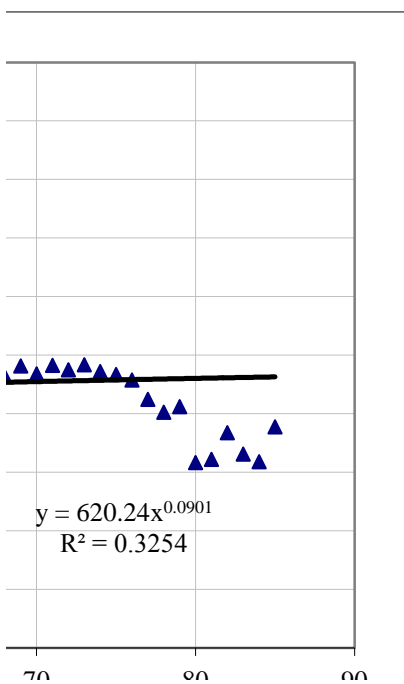
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2.053



cakes combustion

Figure 2. Emission concentration of Nox and theflue gas temperature depending combustion



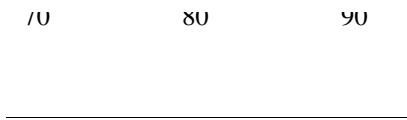


Figure 4. Concentration of CO depending on time

$(x_i-x)^2$	CO	$(x_i-x)^2$	CO	$(x_i-x)^2$	NO	$(x_i-x)^2$	NO	$(x_i-x)^2$
	mg.m-3		mg.m-3		ppm		mg.m-3	
209774.78	1575.56	328007.25	2750.00	11287699.97	201.00	2232.28	269.17	4003.11
88215.99	1776.88	137935.95	2720.00	11490183.01	249.00	9072.00	333.44	16268.65
203390.39	2712.22	318024.52	3110.99	8992360.57	235.00	6601.08	314.70	11837.60
166454.40	2658.45	260270.81	3137.65	8833156.81	237.00	6930.07	317.37	12427.57
391861.27	2931.05	612720.66	3200.00	8466454.45	203.00	2425.27	271.84	4349.19
34220.65	2379.60	53507.96	3305.00	7866442.31	179.00	637.41	239.71	1143.06
16896.94	2310.83	26420.33	3482.07	6904555.96	182.00	797.90	243.72	1430.85
22797.45	2337.08	35646.46	3979.56	4537589.33	168.00	202.98	224.97	364.00
8102.12	2035.73	12668.60	3683.06	5888673.50	177.00	540.43	237.03	969.14
28564.98	1936.94	44664.66	3825.20	5219025.04	180.00	688.91	241.04	1235.41
676.61	2115.76	1057.96	4701.68	1982572.91	152.00	3.07	203.55	5.51
2210.11	2089.50	3455.76	5096.33	1026950.34	143.00	115.63	191.50	207.35
15878.96	1990.71	24828.61	5643.77	217109.18	155.00	1.56	207.57	2.79
137632.27	2612.18	215204.06	6160.00	2528.36	116.00	1425.28	155.34	2555.94
34591.62	2380.85	54088.03	6630.00	270694.14	129.00	612.71	172.75	1098.76
178093.93	1620.58	278470.57	6540.00	185143.25	176.00	494.93	235.69	887.55
63509.93	1833.15	99305.16	7638.14	2336087.12	213.00	3510.21	285.24	6294.80
58086.67	1846.91	90825.26	4814.22	1678316.35	206.00	2729.76	275.86	4895.22
269348.79	2797.25	421158.15	5330.00	607958.98	169.00	232.47	226.31	416.89
6722.07	2250.80	10510.74	5489.76	384341.02	157.00	10.54	210.24	18.91
9.07	2144.52	14.18	5139.36	941589.18	173.00	370.45	231.67	664.32
64.19	2138.26	100.37	5069.16	1082761.66	164.00	105.00	219.62	188.30
1295.15	2193.28	2025.12	5433.81	456851.52	204.00	2524.77	273.18	4527.62
11661.46	2283.32	18234.05	5556.74	305783.30	184.00	914.88	246.40	1640.64
4487.42	2232.05	7016.61	5456.11	427196.44	170.00	263.97	227.65	473.37
10198.62	2274.56	15946.73	5765.02	118816.86	164.00	105.00	219.62	188.30
29933.07	1931.94	46803.84	5000.31	1230774.23	163.00	85.51	218.28	153.34
575.44	2178.28	899.76	5611.49	248232.22	163.00	85.51	218.28	153.34
575.44	2178.28	899.76	5732.31	142436.47	148.00	33.10	198.19	59.35
2399.85	2209.54	3752.44	6106.77	8.71	158.00	18.04	211.58	32.35
3845.46	2070.74	6012.82	5901.07	43533.46	173.00	370.45	231.67	664.32
2026.06	2092.00	3167.98	6356.90	61097.62	157.00	10.54	210.24	18.91
3479.61	2222.04	5440.78	7084.78	950739.09	154.00	0.06	206.23	0.11
88796.99	2520.90	138844.42	6400.00	84264.08	128.00	663.21	171.41	1189.33
24332.33	2343.34	38046.43	6900.00	624546.83	166.00	149.99	222.30	268.97
187499.19	1606.82	293176.78	6570.00	211860.21	220.00	4388.67	294.61	7870.12
5330.72	2056.98	8335.20	7517.22	1981060.19	178.00	587.92	238.37	1054.31
30620.88	2367.10	47879.31	8110.00	4001131.10	158.00	18.04	211.58	32.35
172234.76	1629.33	269309.08	8290.00	4753632.89	159.00	27.53	212.92	49.37
34600.38	1915.68	54101.71	8362.11	5073283.87	168.00	202.98	224.97	364.00
3482.39	2074.49	5445.12	10372.45	18170917.18	145.00	76.61	194.17	137.39
16896.94	2310.83	26420.33	6435.21	105944.79	123.00	945.74	164.71	1695.98
8461.84	2263.31	13231.06	6042.81	4476.22	146.00	60.11	195.51	107.79
6082.16	2245.80	9510.17	5692.12	174383.83	156.00	5.05	208.90	9.05
2114.92	2205.79	3306.92	5874.98	55102.13	130.00	564.20	174.09	1011.77
78393.41	2498.39	122577.21	5620.00	239822.98	138.00	248.16	184.80	445.01
69175.19	1819.40	108163.45	5294.55	664499.33	154.00	0.06	206.23	0.11
40808.75	1895.68	63809.23	5292.50	667846.25	149.00	22.59	199.53	40.51
142137.87	1676.85	222249.09	4841.30	1608894.12	125.00	826.73	167.39	1482.56
105617.35	2554.66	165145.01	6300.00	36207.53	107.00	2185.84	143.29	3919.82

78406.59	1798.14	122597.82	5374.88	539984.50	135.00	351.67	180.78	630.65
528.46	2177.03	826.31	6335.26	50871.53	127.00	715.72	170.07	1283.49
900.71	2110.75	1408.36	6062.22	2256.32	129.00	612.71	172.75	1098.76
67593.88	2473.38	105690.89	6190.00	6445.32	134.00	390.18	179.44	699.70
95473.73	2534.65	149284.28	5860.00	62358.70	136.00	315.17	182.12	565.18
25.12	2142.01	39.27	6283.24	30111.26	156.00	5.05	208.90	9.05
38813.64	1901.93	60689.63	5520.11	347635.99	156.00	5.05	208.90	9.05
5039.33	2237.05	7879.58	6441.76	110254.49	142.00	138.13	190.16	247.71
168.69	2164.52	263.77	6058.46	2627.24	115.00	1501.79	154.00	2693.13
31324.84	2369.60	48980.02	6805.63	484291.98	147.00	45.60	196.85	81.78
436936.55	1321.72	683201.10	5510.00	359660.77	182.00	797.90	243.72	1430.85
3365.36	2075.74	5262.14	6238.57	16602.02	159.00	27.53	212.92	49.37
34229.35	1916.93	53521.57	5638.04	222477.27	148.00	33.10	198.19	59.35
1224.18	2192.03	1914.14	6624.27	264768.97	123.00	945.74	164.71	1695.98
728.36	2182.03	1138.88	6558.01	200967.03	124.00	885.24	166.05	1587.48
19884.32	1971.95	31091.44	8154.70	4181942.47	131.00	517.70	175.43	928.37
164015.47	2654.70	256457.26	6040.00	4860.49	106.00	2280.34	141.95	4089.30
88215.99	1776.88	137935.95	5521.39	346126.45	173.00	370.45	231.67	664.32
283036.52	1483.03	442560.50	6100.00	94.42	190.00	1313.85	254.44	2356.10
956460.99	3371.20	1495537.96	5660.00	202245.60	126.00	770.23	168.73	1381.23
184030.91	2684.71	287753.72	7130.00	1040976.90	110.00	1914.32	147.30	3432.91
7566.95	2257.06	11831.81	6840.00	533312.90	134.00	390.18	179.44	699.70
261133.02	1509.29	408311.84	6540.00	185143.25	170.00	263.97	227.65	473.37
50170.73	2428.37	78447.77	6780.00	449278.97	138.00	248.16	184.80	445.01
126016.65	2592.18	197041.68	7130.00	1040976.90	91.00	3937.93	121.86	7061.82
168.69	2164.52	263.77	7460.00	1823263.52	131.00	517.70	175.43	928.37
112903.91	1728.12	176538.38	8670.00	6555047.78	146.00	60.11	195.51	107.79
3845.46	2070.74	6012.82	9320.00	10305915.36	130.00	564.20	174.09	1011.77
51523.66	2432.12	80563.23	8910.00	7841583.50	122.00	1008.25	163.37	1808.07
125324.33	1705.61	195959.16	10400.00	18406526.11	137.00	280.66	183.46	503.30
33484.69	2377.10	52357.21	11160.00	25505355.90	89.00	4192.94	119.18	7519.12
14881.13	2300.82	23268.38	7340.00	1513595.66	83.00	5005.98	111.15	8977.13
8102.12	2035.73	12668.60	6911.42	642724.26	114.00	1580.30	152.66	2833.91
555042.53	1216.68	867873.53	6070.00	1577.46	162.00	68.01	216.94	121.97
33493.31	1919.44	52370.68	6321.49	44849.14	121.00	1072.76	162.04	1923.75
	CO		CO (O2=10%)		NO		NO	
	mg.m ⁻³		mg.m ⁻³		ppm		mg.m ⁻³	

2148.28168

128406.904

10786180

358.339091

0.16680266

77.7346631

3371.20357

1216.68438

6109.71725

2571098.18

215972247

1603.46443

0.26244495

347.840273

11160

2720

153.752941

1050.64062

88253.8118

32.4135869

0.21081604

7.03149425

249

83

205.89584

1884.09355

158263.859

43.4061465

0.21081604

9.41611523

333.444444

111.148148

NO2 (O2=10%)

mg.m⁻³

11.738

45.501

6.745

0.575

61.645

4.441

NOx

ppm

155.612

1075.336

32.792

0.211

252.000

84.000

NOx

mg.m⁻³

319.487

4532.781

67.326

0.211

517.382

172.461

NOx (O2=10%)

mg.m⁻³

856.960

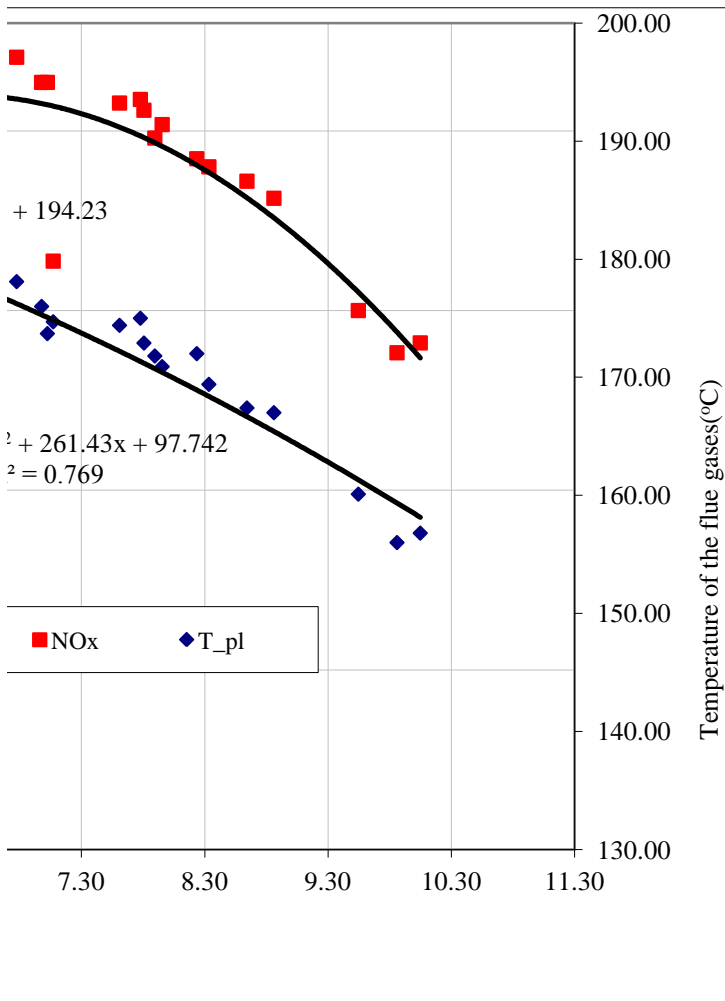
12286.381

110.844

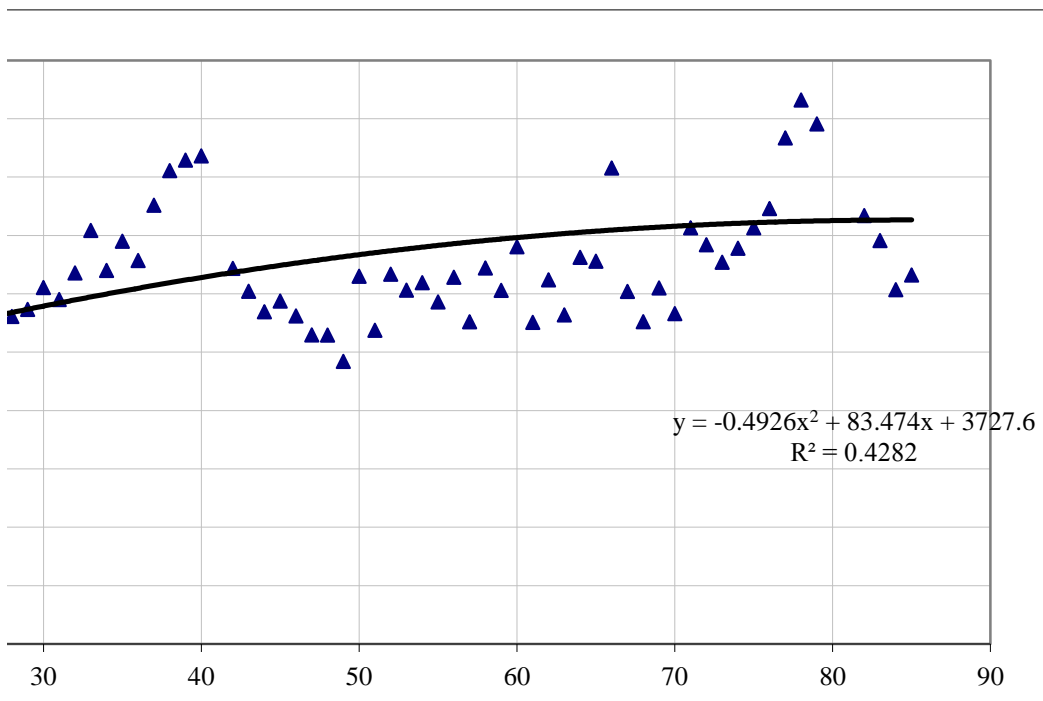
0.129

967.000

556.000



g on the Excess air ratio during Jatropha seed cakes



Time (min)

NO	$(x_i-x)^2$	NO ₂	$(x_i-x)^2$	NO ₂	$(x_i-x)^2$	NO ₂	$(x_i-x)^2$	NO _x
mg.m-3		ppm		mg.m-3		mg.m-3		ppm
291.13	92077.94	2.00	0.02	4.11	0.10	4.44	53.24	203.00
358.89	55546.74	3.00	1.30	57.27	2793.77	61.65	2490.73	252.00
360.97	54574.09	3.00	1.30	6.16	3.03	7.06	21.84	238.00
374.58	48396.82	3.00	1.30	6.16	3.03	7.27	19.97	240.00
350.15	59744.12	2.00	0.02	4.11	0.10	5.29	41.59	205.00
332.92	68462.36	2.00	0.02	4.11	0.10	5.70	36.42	181.00
367.25	51676.11	2.00	0.02	4.11	0.10	6.19	30.81	184.00
383.08	44729.37	2.00	0.02	4.11	0.10	6.99	22.52	170.00
428.83	27471.56	2.00	0.02	4.11	0.10	7.43	18.57	179.00
476.03	14053.39	2.00	0.02	4.11	0.10	8.11	13.17	182.00
452.33	20234.21	2.00	0.02	4.11	0.10	9.12	6.83	154.00
467.06	16259.54	2.00	0.02	4.11	0.10	10.02	2.97	145.00
588.46	37.42	2.00	0.02	4.11	0.10	11.64	0.01	157.00
469.43	15661.02	1.00	0.74	2.05	5.59	6.20	30.62	117.00
574.09	419.79	1.00	0.74	2.05	5.59	6.82	24.16	130.00
817.84	49848.04	2.00	0.02	4.11	0.10	14.25	6.30	178.00
1188.48	352723.03	2.00	0.02	4.11	0.10	17.11	28.85	215.00
719.07	15498.73	3.00	1.30	6.16	3.03	16.06	18.64	209.00
568.37	686.92	2.00	0.02	4.11	0.10	10.31	2.03	171.00
512.79	6689.01	2.00	0.02	4.11	0.10	10.02	2.97	159.00
555.20	1550.45	2.00	0.02	4.11	0.10	9.84	3.60	175.00
520.65	5465.74	2.00	0.02	4.11	0.10	9.73	4.01	166.00
676.81	6761.59	2.00	0.02	4.11	0.10	10.17	2.45	206.00
599.65	25.71	2.00	0.02	4.11	0.10	9.99	3.04	186.00
556.48	1451.01	2.00	0.02	4.11	0.10	10.04	2.89	172.00
556.64	1439.54	2.00	0.02	4.11	0.10	10.41	1.77	166.00
564.96	877.32	2.00	0.02	4.11	0.10	10.63	1.23	165.00
562.31	1041.08	2.00	0.02	4.11	0.10	10.58	1.35	165.00
521.56	5331.81	2.00	0.02	4.11	0.10	10.81	0.87	150.00
584.78	96.02	2.00	0.02	4.11	0.10	11.35	0.15	160.00
660.20	4306.42	2.00	0.02	4.11	0.10	11.70	0.00	175.00
638.86	1961.29	2.00	0.02	4.11	0.10	12.48	0.55	159.00
657.53	3963.65	2.00	0.02	4.11	0.10	13.09	1.83	156.00
554.56	1601.41	2.00	0.02	4.11	0.10	13.28	2.39	130.00
736.52	20148.97	2.00	0.02	4.11	0.10	13.60	3.49	168.00
1045.39	203231.39	3.00	1.30	6.16	3.03	21.86	102.37	223.00
871.10	76467.65	2.00	0.02	4.11	0.10	15.01	10.68	180.00
843.27	61846.55	2.00	0.02	4.11	0.10	16.37	21.41	160.00
870.69	76236.41	2.00	0.02	4.11	0.10	16.79	25.54	161.00
982.03	150121.40	2.00	0.02	4.11	0.10	17.92	38.27	170.00
970.87	141598.36	2.00	0.02	4.11	0.10	20.53	77.32	147.00
458.70	18463.63	2.00	0.02	4.11	0.10	11.43	0.09	125.00
522.00	5267.05	2.00	0.02	4.11	0.10	10.96	0.60	148.00
529.48	4237.26	2.00	0.02	4.11	0.10	10.41	1.77	158.00
463.67	17136.28	2.00	0.02	4.11	0.10	10.94	0.64	132.00
510.76	7026.05	2.00	0.02	4.11	0.10	11.35	0.15	140.00
600.13	30.84	2.00	0.02	4.11	0.10	11.95	0.04	156.00
557.07	1407.04	2.00	0.02	4.11	0.10	11.46	0.07	151.00
483.28	12386.23	1.00	0.74	2.05	5.59	5.93	33.76	126.00
425.99	28421.68	1.00	0.74	2.05	5.59	6.10	31.74	108.00

540.38	2936.82	2.00	0.02	4.11	0.10	12.27	0.29	137.00
494.91	9932.90	2.00	0.02	4.11	0.10	11.95	0.04	129.00
496.14	9689.01	2.00	0.02	4.11	0.10	11.79	0.00	131.00
537.84	3218.72	2.00	0.02	4.11	0.10	12.31	0.32	136.00
521.70	5310.39	2.00	0.02	4.11	0.10	11.76	0.00	138.00
612.79	331.64	2.00	0.02	4.11	0.10	12.04	0.09	158.00
606.32	137.91	2.00	0.02	4.11	0.10	11.92	0.03	158.00
547.57	2209.38	2.00	0.02	4.11	0.10	11.82	0.01	144.00
431.04	26742.81	1.00	0.74	2.05	5.59	5.75	35.90	116.00
565.37	852.84	1.00	0.74	2.05	5.59	5.90	34.12	148.00
728.52	17940.29	2.00	0.02	4.11	0.10	12.27	0.29	184.00
639.93	2056.96	2.00	0.02	4.11	0.10	12.34	0.36	161.00
582.92	135.94	2.00	0.02	4.11	0.10	12.08	0.12	150.00
497.76	9373.37	1.00	0.74	2.05	5.59	6.20	30.62	124.00
499.07	9122.44	1.00	0.74	2.05	5.59	6.17	31.00	125.00
725.45	17127.36	2.00	0.02	4.11	0.10	16.98	27.49	133.00
426.62	28209.36	1.00	0.74	2.05	5.59	6.17	31.00	107.00
719.88	15700.71	2.00	0.02	4.11	0.10	12.76	1.04	175.00
795.11	40213.96	2.00	0.02	4.11	0.10	12.83	1.20	192.00
539.55	3028.33	2.00	0.02	4.11	0.10	13.13	1.94	128.00
507.95	7504.64	1.00	0.74	2.05	5.59	7.08	21.70	111.00
614.92	413.73	1.00	0.74	2.05	5.59	7.04	22.11	135.00
782.56	35336.41	2.00	0.02	4.11	0.10	14.12	5.65	172.00
635.25	1654.46	2.00	0.02	4.11	0.10	14.12	5.65	140.00
448.32	21391.38	1.00	0.74	2.05	5.59	7.55	17.51	92.00
714.70	14429.81	1.00	0.74	2.05	5.59	8.36	11.38	132.00
843.39	61909.02	2.00	0.02	4.11	0.10	17.71	35.70	148.00
808.00	45549.83	2.00	0.02	4.11	0.10	19.06	53.59	132.00
739.55	21018.63	2.00	0.02	4.11	0.10	18.59	46.92	124.00
947.45	124521.78	2.00	0.02	4.11	0.10	21.21	89.64	139.00
627.28	1069.41	1.00	0.74	2.05	5.59	10.81	0.87	90.00
411.66	33458.63	1.00	0.74	2.05	5.59	7.60	17.09	84.00
518.29	5818.98	1.00	0.74	2.05	5.59	6.97	22.73	115.00
734.26	19510.74	2.00	0.02	4.11	0.10	13.90	4.67	164.00
533.65	3712.19	1.00	0.74	2.05	5.59	6.76	24.76	122.00
NO (O2=10%)		NO ₂		NO ₂		NO ₂ (O2=10%)		NO _x
mg.m ⁻³		ppm		mg.m ⁻³		mg.m ⁻³		ppm
594.5768047		1.85882353		4.4177007		11.7378775		155.611765
29241.20036		0.24173669		34.6079972		45.5014596		1075.33557
2456260.83		20.3058824		2907.07176		3822.12261		90328.1882
171.0005859		0.49166726		5.88285621		6.74547698		32.7923097
0.287600499		0.26450454		1.33165568		0.57467604		0.21073156
37.09523538		0.1066576		1.27617069		1.46329941		7.11365075
1188.481705		3		57.2738589		61.6450536		252
291.1333304		1		2.05310129		4.4413204		84

$(x_i-x)^2$	NO _x	$(x_i-x)^2$	NO _x	$(x_i-x)^2$
	mg.m-3		mg.m-3	
2245.64	416.78	9465.90	556.00	90576.94
9290.69	517.38	39162.36	556.87	90054.88
6787.82	488.64	28612.19	560.48	87899.42
7121.37	492.74	30018.19	581.57	75842.32
2439.20	420.89	10281.77	595.00	68623.05
644.56	371.61	2716.98	654.00	41192.77
805.89	377.77	3397.02	678.00	32026.69
207.02	349.03	872.64	718.00	19309.89
547.01	367.51	2305.77	734.00	15119.17
696.34	373.66	2935.23	774.00	6882.37
2.60	316.18	10.95	843.00	194.88
112.61	297.70	474.67	866.00	81.72
1.93	322.34	8.12	913.84	3235.53
1490.87	240.21	6284.35	927.00	4905.60
655.96	266.90	2765.03	935.00	6090.24
501.23	365.45	2112.81	936.00	6247.32
3526.96	441.42	14866.94	887.00	902.40
2850.30	429.10	12014.67	887.00	902.40
236.80	351.08	998.16	881.71	612.49
11.48	326.44	48.39	842.00	223.80
375.90	359.29	1584.52	861.05	16.73
107.92	340.81	454.89	849.00	63.36
2538.97	422.94	10702.35	875.00	325.44
923.44	381.88	3892.53	850.00	48.44
268.57	353.13	1132.10	863.22	39.13
107.92	340.81	454.89	863.82	47.01
88.14	338.76	371.53	876.80	393.43
88.14	338.76	371.53	872.69	247.38
31.49	307.97	132.75	913.00	3140.48
19.26	328.50	81.17	907.90	2595.30
375.90	359.29	1584.52	947.00	8107.20
11.48	326.44	48.39	925.00	4629.44
0.15	320.28	0.64	962.00	11033.40
655.96	266.90	2765.03	960.00	10617.24
153.47	344.92	646.90	951.00	8843.52
4541.17	457.84	19142.07	962.00	11033.40
594.79	369.56	2507.16	934.00	5935.16
19.26	328.50	81.17	911.00	2920.32
29.03	330.55	122.38	903.00	2119.68
207.02	349.03	872.64	840.00	287.64
74.16	301.81	312.61	680.00	31314.85
937.08	256.64	3950.00	903.00	2119.68
57.94	303.86	244.23	894.00	1371.96
5.70	324.39	24.04	882.00	627.00
557.52	271.01	2350.05	892.00	1227.80
243.73	287.43	1027.36	905.00	2307.84
0.15	320.28	0.64	932.04	5637.42
21.27	310.02	89.65	901.00	1939.52
876.86	258.69	3696.15	918.00	3725.88
2266.88	221.73	9555.41	917.00	3604.80

346.40	281.27	1460.14	915.00	3368.64
708.19	264.85	2985.16	913.00	3140.48
605.74	268.96	2553.33	911.00	2920.32
384.62	279.22	1621.27	935.00	6090.24
310.17	283.33	1307.45	899.00	1767.36
5.70	324.39	24.04	951.54	8946.13
5.70	324.39	24.04	941.50	7147.23
134.83	295.65	568.35	898.00	1684.28
1569.09	238.16	6614.08	905.00	2307.84
57.94	303.86	244.23	915.00	3368.64
805.89	377.77	3397.02	936.00	6247.32
29.03	330.55	122.38	946.00	7928.12
31.49	307.97	132.75	905.78	2383.39
999.30	254.58	4212.29	923.00	4361.28
937.08	256.64	3950.00	919.00	3848.96
511.29	273.06	2155.21	872.00	226.20
2363.10	219.68	9961.01	934.00	5935.16
375.90	359.29	1584.52	927.00	4905.60
1324.10	394.20	5581.39	963.00	11244.48
762.41	262.80	3213.73	936.00	6247.32
1990.21	227.89	8389.18	965.00	11672.64
424.84	277.17	1790.82	949.80	8619.11
268.57	353.13	1132.10	967.00	12108.80
243.73	287.43	1027.36	944.00	7575.96
4046.46	188.89	17056.72	934.00	5935.16
557.52	271.01	2350.05	915.00	3368.64
57.94	303.86	244.23	849.00	63.36
557.52	271.01	2350.05	805.00	2699.84
999.30	254.58	4212.29	824.00	1086.36
275.95	285.38	1163.19	633.00	50158.09
4304.90	184.78	18146.14	644.00	45351.97
5128.24	172.46	21616.71	735.00	14874.25
1649.32	236.11	6952.24	662.00	38009.41
70.36	336.71	296.59	636.00	48823.33
1129.75	250.48	4762.15	755.00	10395.85
	NO _x		NO _x (O ₂ =10%)	
	mg.m ⁻³		mg.m ⁻³	

319.486715

856.960022

4532.78131

12286.3813

380753.63

1032056.03

67.3259334

110.84395

0.21073156

0.12934553

14.6050456

24.0454289

517.381526

967

172.460509

556