

Method Path : Z:\svoasrv\HPCHEM1\BNA_G\Methods\
 Method File : 8270-BG012425.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Mon Jan 27 15:15:32 2025
 Response Via : Initial Calibration

Calibration Files

2.5 =BG063953.D 5 =BG063954.D 10 =BG063955.D 20 =BG063956.D 40 =BG063957.D 50 =BG063958.D 60 =BG063959.D 80 =BG063960.D

	Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1) I	1,4-Dichlorobenzen...	-----ISTD-----									
2)	1,4-Dioxane		0.614	0.653	0.681	0.792	0.582	0.610	0.566	0.643	11.93
3)	Pyridine		1.596	1.686	1.784	2.224	1.661	1.699	1.668	1.760	12.06
4)	n-Nitrosodimet...		0.917	0.994	1.013	1.278	0.950	0.949	0.912	1.002	12.71
5) S	2-Fluorophenol		1.524	1.420	1.466	1.651	1.373	1.383	1.329	1.449	7.57
6)	Aniline		1.645	1.627	1.654	1.847	1.541	1.546	1.497	1.622	7.11
7) S	Phenol-d6		2.055	1.885	1.994	2.221	1.855	1.883	1.811	1.958	7.32
8)	2-Chlorophenol		1.670	1.458	1.510	1.719	1.426	1.446	1.424	1.522	8.03
9)	Benzaldehyde		1.345	1.311	1.208	1.221	0.947	0.894		1.154	16.41
10) C	Phenol		2.188	2.005	2.080	2.367	1.953	1.978	1.904	2.068	7.79
11)	bis(2-Chloroet...		1.831	1.592	1.609	1.804	1.498	1.517	1.477	1.618	8.93
12)	1,3-Dichlorobe...		1.682	1.684	1.649	1.877	1.553	1.551	1.504	1.643	7.61
13) C	1,4-Dichlorobe...		1.721	1.661	1.705	1.882	1.557	1.592	1.539	1.665	7.13
14)	1,2-Dichlorobe...		1.669	1.628	1.652	1.834	1.518	1.528	1.496	1.618	7.29
15)	Benzyl Alcohol		1.410	1.452	1.456	1.660	1.402	1.411	1.380	1.453	6.55
16)	2,2'-oxybis(1-...		2.935	3.007	3.051	3.403	2.842	2.892	2.805	2.991	6.74
17)	2-Methylphenol		1.281	1.320	1.380	1.560	1.304	1.309	1.271	1.346	7.48
18)	Hexachloroethane		0.546	0.574	0.602	0.654	0.561	0.564	0.565	0.581	6.28
19) P	n-Nitroso-di-n...	1.283	1.304	1.381	1.369	1.490	1.240	1.254	1.236	1.320	6.68
20)	3+4-Methylphenols		1.702	1.827	1.938	2.099	1.751	1.793	1.740	1.836	7.57
21) I	Naphthalene-d8	-----ISTD-----									
22)	Acetophenone		0.600	0.575	0.590	0.644	0.541	0.553	0.530	0.576	6.83
23) S	Nitrobenzene-d5			0.264	0.315	0.387	0.344	0.368		0.336	14.33
24)	Nitrobenzene		0.293	0.320	0.369	0.454	0.391	0.412	0.413	0.379	14.89
25)	Isophorone		0.824	0.792	0.820	0.937	0.766	0.791	0.766	0.813	7.25
26) C	2-Nitrophenol		0.070	0.065	0.085	0.112	0.107	0.118	0.124	0.097	24.59
27)	2,4-Dimethylph...		0.226	0.232	0.234	0.268	0.226	0.234	0.229	0.236	6.24
28)	bis(2-Chloroet...		0.492	0.493	0.495	0.563	0.477	0.491	0.472	0.498	6.09
29) C	2,4-Dichloroph...		0.272	0.281	0.298	0.345	0.295	0.299	0.291	0.297	7.79
30)	1,2,4-Trichlor...		0.384	0.356	0.363	0.413	0.348	0.354	0.343	0.366	6.67
31)	Naphthalene		1.181	1.131	1.158	1.299	1.087	1.118	1.065	1.148	6.73
32)	Benzoic acid			0.140	0.171	0.236	0.216	0.235	0.228	0.204	19.41
33)	4-Chloroaniline		0.408	0.390	0.403	0.467	0.388	0.402	0.390	0.407	6.82
34) C	Hexachlorobuta...		0.235	0.237	0.234	0.271	0.226	0.236	0.229	0.238	6.24
35)	Caprolactam		0.109	0.110	0.117	0.135	0.113	0.115	0.109	0.115	7.87
36) C	4-Chloro-3-met...		0.371	0.361	0.374	0.448	0.374	0.381	0.363	0.382	7.83
37)	2-Methylnaphth...		0.771	0.767	0.781	0.879	0.751	0.741	0.715	0.772	6.75
38)	1-Methylnaphth...		0.785	0.779	0.765	0.877	0.745	0.749	0.711	0.773	6.73

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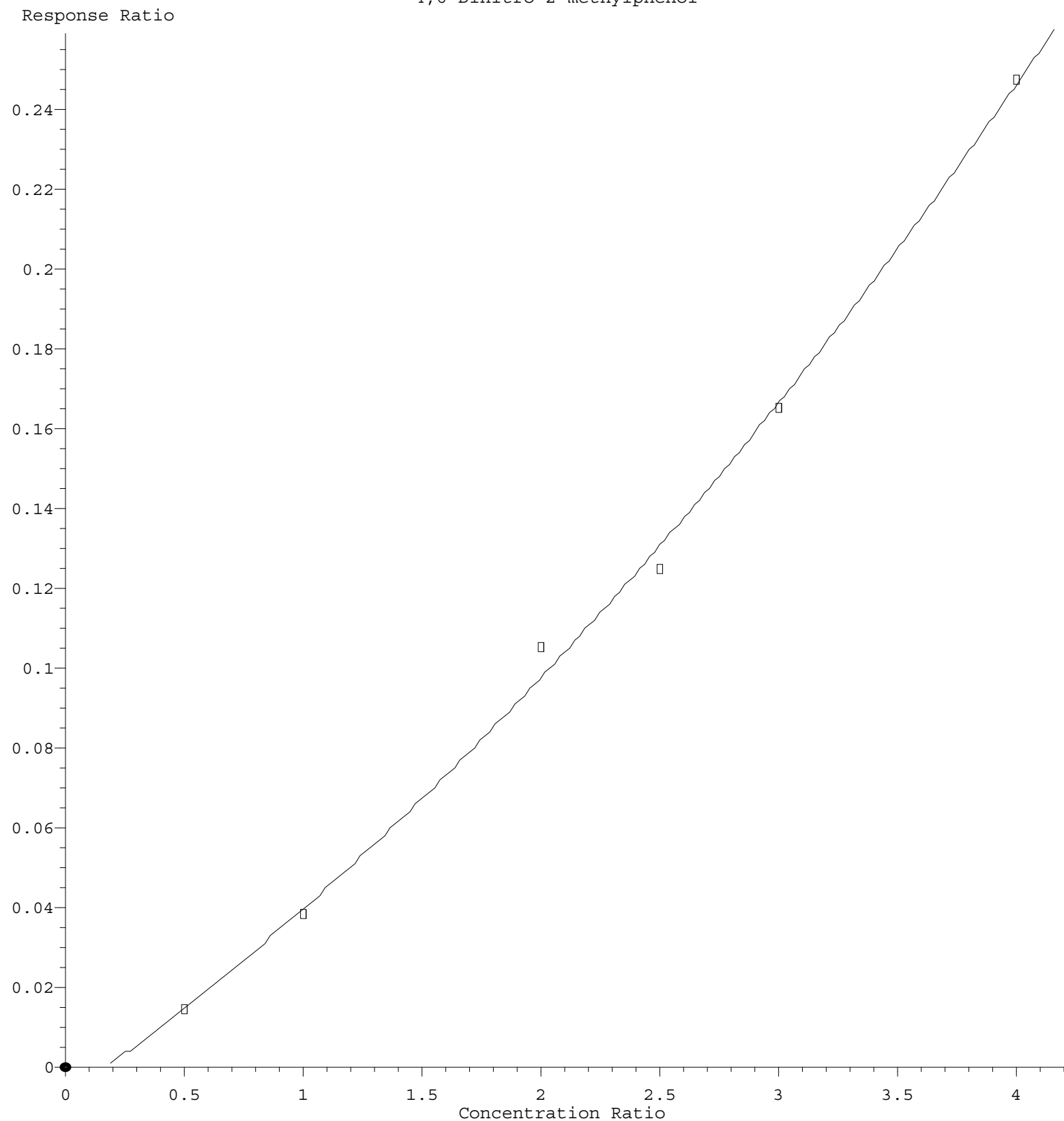
39) I	Acenaphthene-d10	-----ISTD-----									
40)	1,2,4,5-Tetrac...	0.608	0.628	0.614	0.691	0.605	0.617	0.593	0.622	5.15	
41) P	Hexachlorocycl...	0.093	0.105	0.117	0.148	0.137	0.145	0.148	0.128	17.67	
42) S	2,4,6-Tribromo...	0.163	0.187	0.201	0.241	0.212	0.217	0.210	0.204	11.99	
43) C	2,4,6-Trichlor...	0.323	0.344	0.374	0.442	0.388	0.399	0.384	0.379	10.16	
44)	2,4,5-Trichlor...	0.390	0.417	0.426	0.506	0.437	0.450	0.431	0.437	8.21	
45) S	2-Fluorobiphenyl	1.447	1.486	1.437	1.586	1.339	1.351	1.260	1.415	7.61	
46)	1,1'-Biphenyl	1.643	1.627	1.624	1.818	1.557	1.579	1.497	1.621	6.19	
47)	2-Chloronaphth...	1.244	1.248	1.238	1.383	1.204	1.226	1.175	1.245	5.30	
48)	2-Nitroaniline	0.177	0.211	0.254	0.366	0.344	0.370	0.385	0.301	28.30	
49)	Acenaphthylene	1.778	1.820	1.799	2.033	1.712	1.745	1.679	1.795	6.45	
50)	Dimethylphthalate	1.550	1.502	1.503	1.710	1.447	1.479	1.404	1.513	6.49	
51)	2,6-Dinitrotol...	0.115	0.153	0.200	0.284	0.271	0.289	0.289	0.229	31.70	
52) C	Acenaphthene	1.232	1.234	1.227	1.402	1.178	1.213	1.169	1.236	6.26	
53)	3-Nitroaniline	0.147	0.187	0.234	0.321	0.283	0.304	0.296	0.253	25.88	
54) P	2,4-Dinitrophenol		0.036	0.051	0.072	0.064	0.076	0.078	0.063	25.99	
55)	Dibenzofuran	1.934	1.933	1.885	2.130	1.799	1.821	1.730	1.890	6.83	
56) P	4-Nitrophenol		0.153	0.200	0.283	0.243	0.255	0.251	0.231	20.23	
57)	2,4-Dinitrotol...	0.151	0.182	0.232	0.352	0.330	0.372	0.375	0.285	33.16	
58)	Fluorene	1.602	1.603	1.560	1.719	1.449	1.446	1.364	1.535	7.90	
59)	2,3,4,6-Tetrac...	0.285	0.334	0.370	0.433	0.370	0.398	0.378	0.367	12.77	
60)	Diethylphthalate	1.611	1.647	1.615	1.842	1.534	1.573	1.505	1.618	6.80	
61)	4-Chlorophenyl...	0.803	0.778	0.764	0.837	0.704	0.710	0.678	0.753	7.66	
62)	4-Nitroaniline	0.179	0.210	0.279	0.357	0.301	0.319	0.306	0.279	22.57	
63)	Azobenzene	1.752	1.768	1.762	1.954	1.659	1.679	1.608	1.740	6.42	
64) I	Phenanthrene-d10	-----ISTD-----									
65)	4,6-Dinitro-2-...		0.029	0.038	0.053	0.050	0.055	0.062	0.048	25.03	
66) c	n-Nitrosodiphe...	0.582	0.598	0.606	0.663	0.568	0.570	0.564	0.593	5.84	
67)	4-Bromophenyl-...	0.203	0.206	0.207	0.229	0.201	0.204	0.202	0.208	4.60	
68)	Hexachlorobenzene	0.249	0.238	0.249	0.272	0.238	0.239	0.235	0.246	5.15	
69)	Atrazine	0.094	0.097	0.095	0.100	0.075	0.071	0.067	0.086	16.19	
70) C	Pentachlorophenol		0.111	0.131	0.167	0.147	0.153	0.154	0.144	13.91	
71)	Phenanthrene	1.136	1.140	1.140	1.245	1.058	1.047	1.012	1.111	7.05	
72)	Anthracene	1.085	1.097	1.118	1.242	1.042	1.050	0.996	1.090	7.18	
73)	Carbazole	1.073	1.078	1.150	1.267	1.011	1.018	0.975	1.082	9.21	
74)	Di-n-butylphth...	1.227	1.267	1.323	1.509	1.218	1.217	1.149	1.273	9.18	
75) C	Fluoranthene	1.409	1.382	1.468	1.696	1.285	1.291	1.202	1.390	11.61	
76) I	Chrysene-d12	-----ISTD-----									
77)	Benzidine	0.342	0.328	0.366	0.384	0.337	0.303	0.385	0.349	8.73	
78)	Pyrene	1.402	1.356	1.317	1.485	1.294	1.271	1.242	1.338	6.27	
79) S	Terphenyl-d14	1.107	1.080	1.028	1.105	0.931	0.910	0.844	1.001	10.55	
80)	Butylbenzylpht...	0.415	0.446	0.492	0.589	0.506	0.510	0.498	0.494	11.09	
81)	Benzo(a)anthra...	1.366	1.381	1.381	1.566	1.314	1.323	1.269	1.371	6.94	
82)	3,3'-Dichlorob...	0.411	0.432	0.444	0.513	0.437	0.435	0.427	0.443	7.39	
83)	Chrysene	1.325	1.326	1.346	1.507	1.263	1.270	1.237	1.325	6.76	
84)	Bis(2-ethylhex...	0.717	0.753	0.808	0.924	0.783	0.789	0.765	0.791	8.26	
85) c	Di-n-octyl pht...	1.134	1.199	1.283	1.546	1.314	1.338	1.287	1.300	9.97	

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86) I	Perylene-d12	-----ISTD-----								
87)	Indeno(1,2,3-c...	1.333	1.305	1.405	1.630	1.368	1.399	1.349	1.398	7.73
88)	Benzo(b)fluora...	1.232	1.247	1.324	1.491	1.250	1.279	1.203	1.289	7.49
89)	Benzo(k)fluora...	1.240	1.277	1.290	1.463	1.247	1.238	1.215	1.281	6.54
90) C	Benzo(a)pyrene	1.072	1.097	1.136	1.314	1.103	1.115	1.083	1.132	7.34
91)	Dibenzo(a,h)an...	1.075	1.109	1.176	1.353	1.147	1.167	1.129	1.165	7.72
92)	Benzo(g,h,i)pe...	1.104	1.098	1.165	1.365	1.147	1.169	1.134	1.169	7.76

(#) = Out of Range

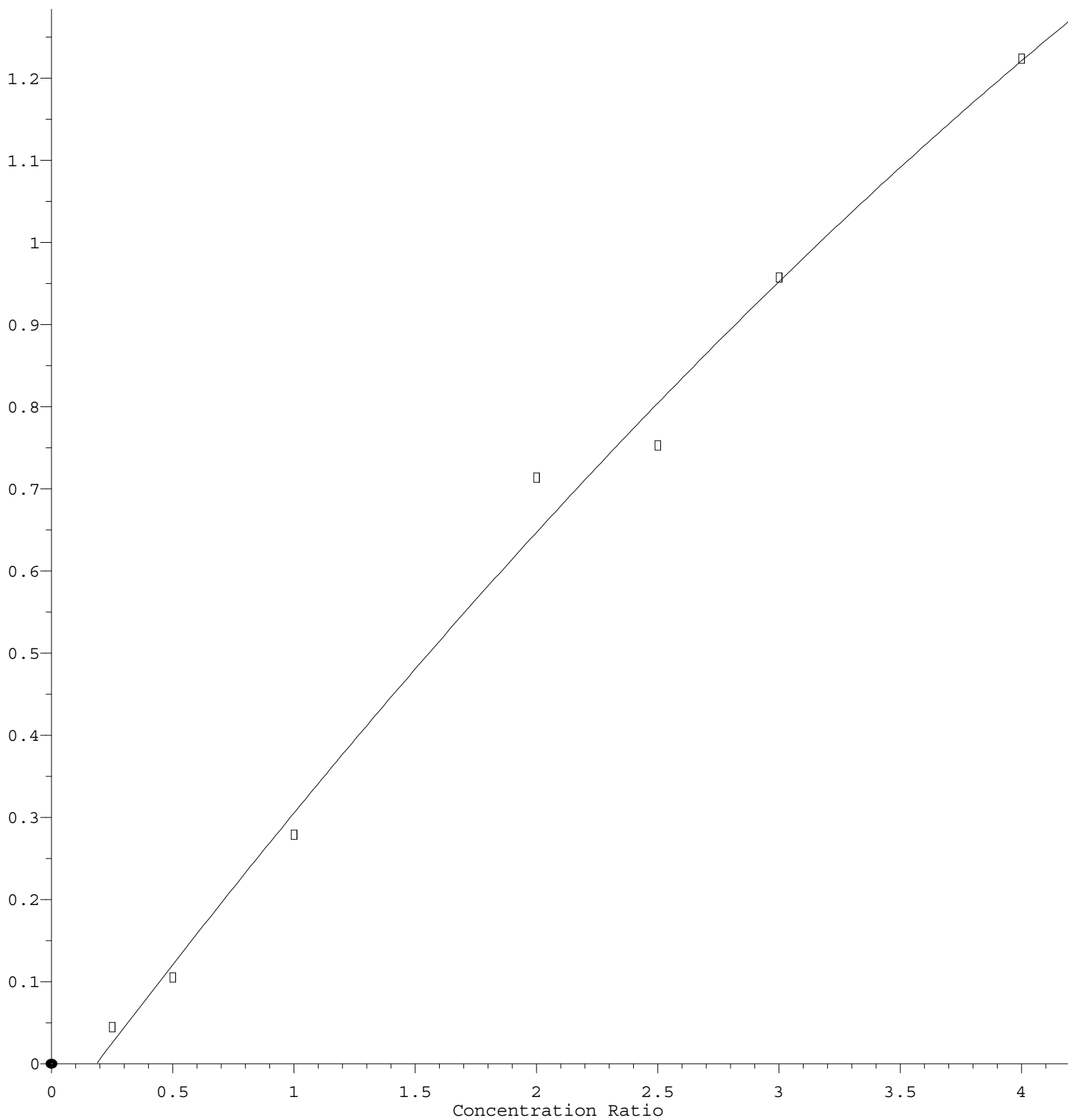
4,6-Dinitro-2-methylphenol



$R = 5.456e-003 A^2 + 4.155e-002 A - 7.270e-003$
 Coef of Det (r^2) = 0.997317 Curve Fit: Quadratic
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4-Nitroaniline

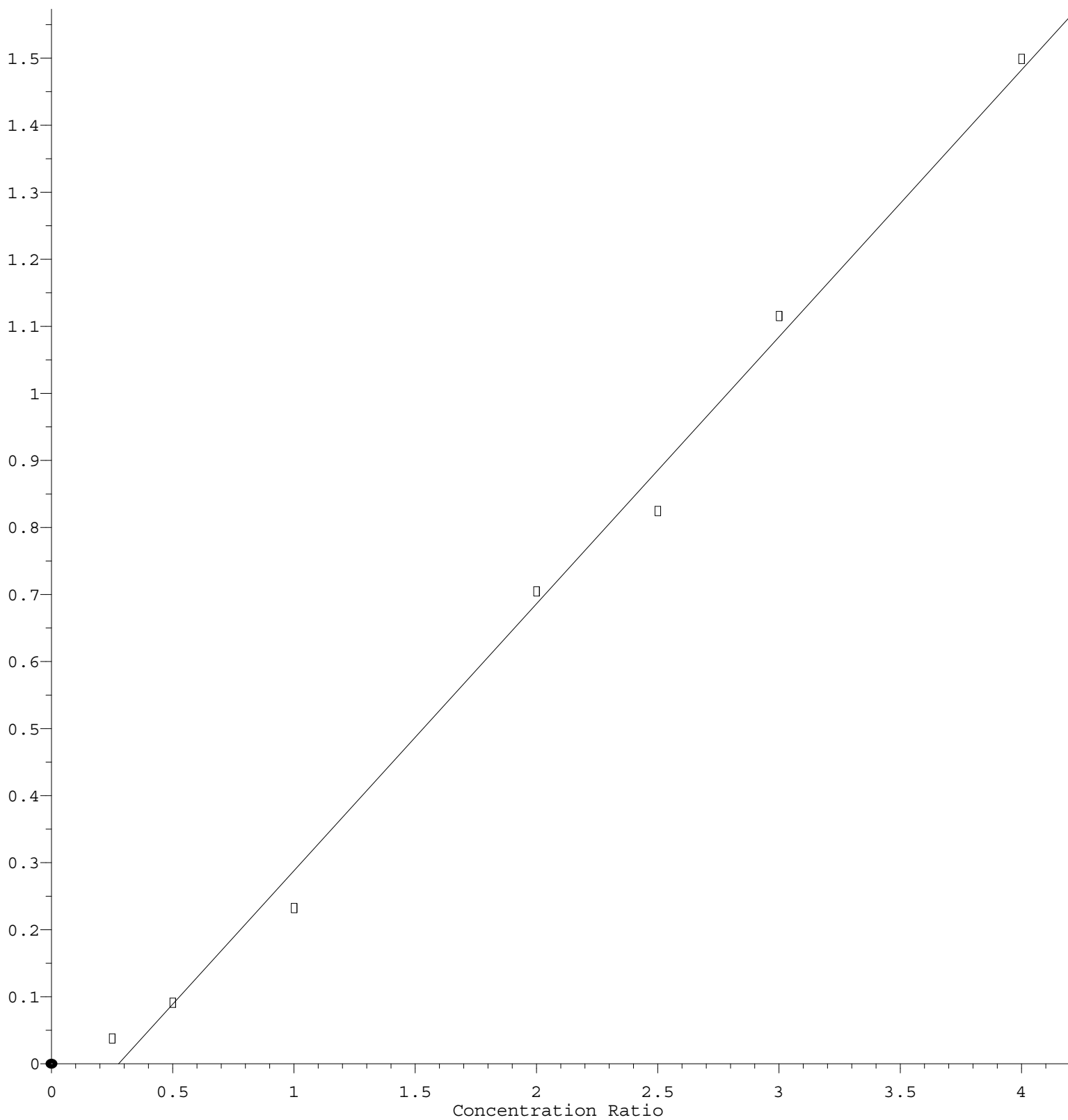
Response Ratio



$R = -1.822e-002 A^2 + 3.964e-001 A - 7.287e-002$
Coef of Det (r^2) = 0.993007 Curve Fit: Quadratic
Method Name: Z:\svoasrv\HPCHEM1\BNA G\Methods\8270-BG012425.M
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2,4-Dinitrotoluene

Response Ratio



$$\text{Response} = 3.983\text{e-}001 * \text{Amt} - 1.104\text{e-}001$$

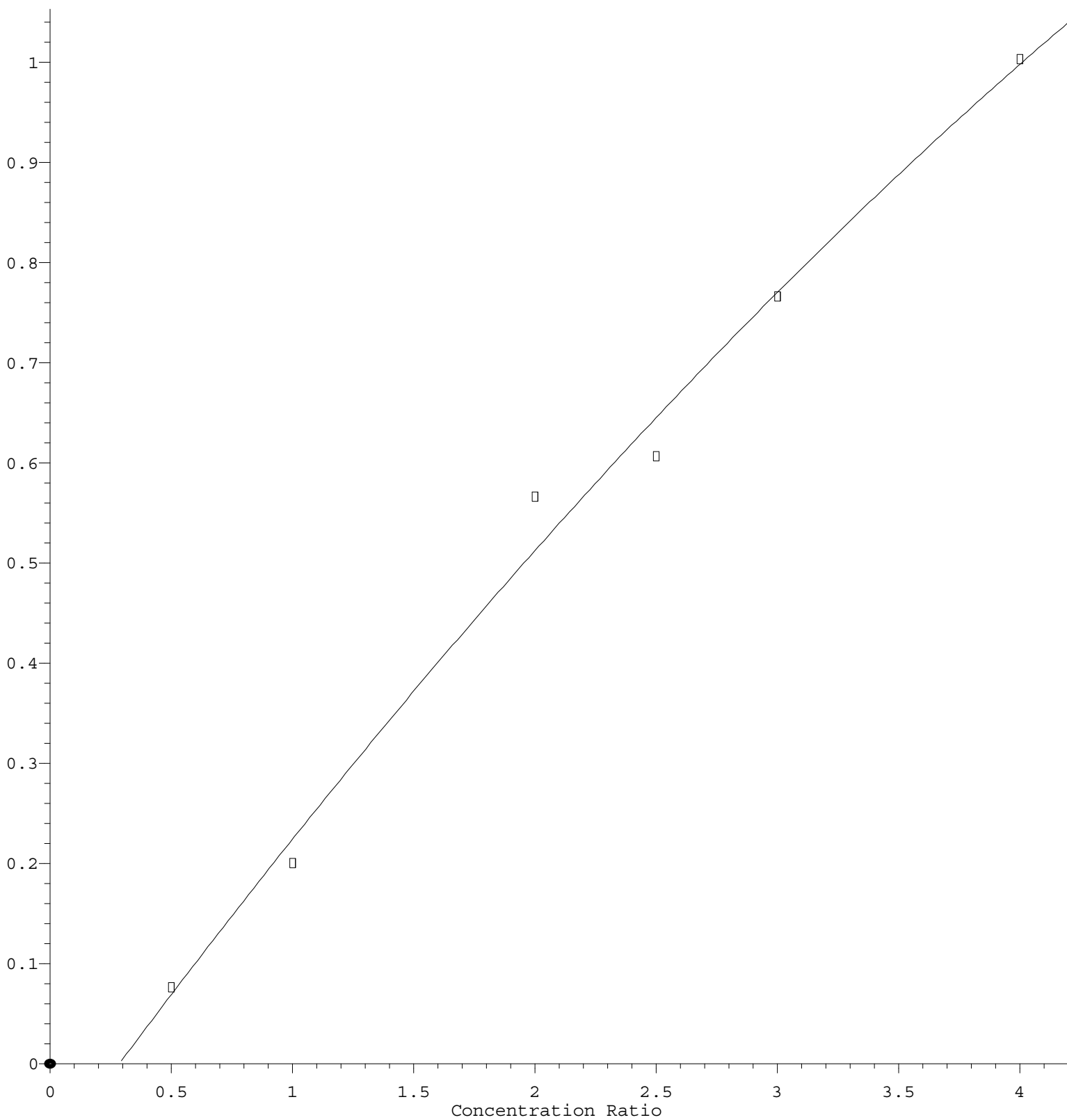
Coef of Det (r^2) = 0.994163 Curve Fit: Linear

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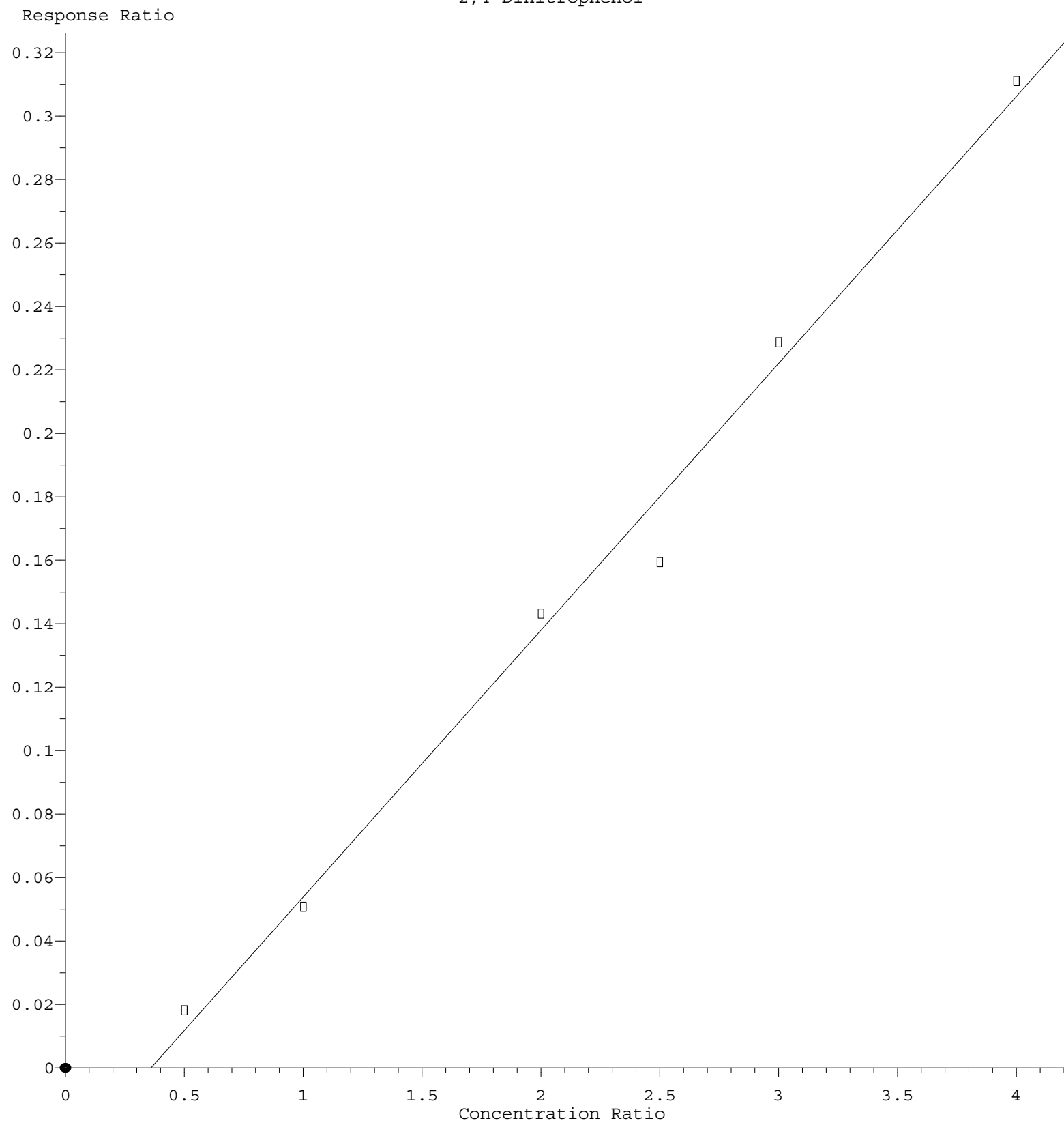
4-Nitrophenol

Response Ratio



$R = -1.510e-002 A^2 + 3.334e-001 A - 9.396e-002$
 Coef of Det (r^2) = 0.991575 Curve Fit: Quadratic
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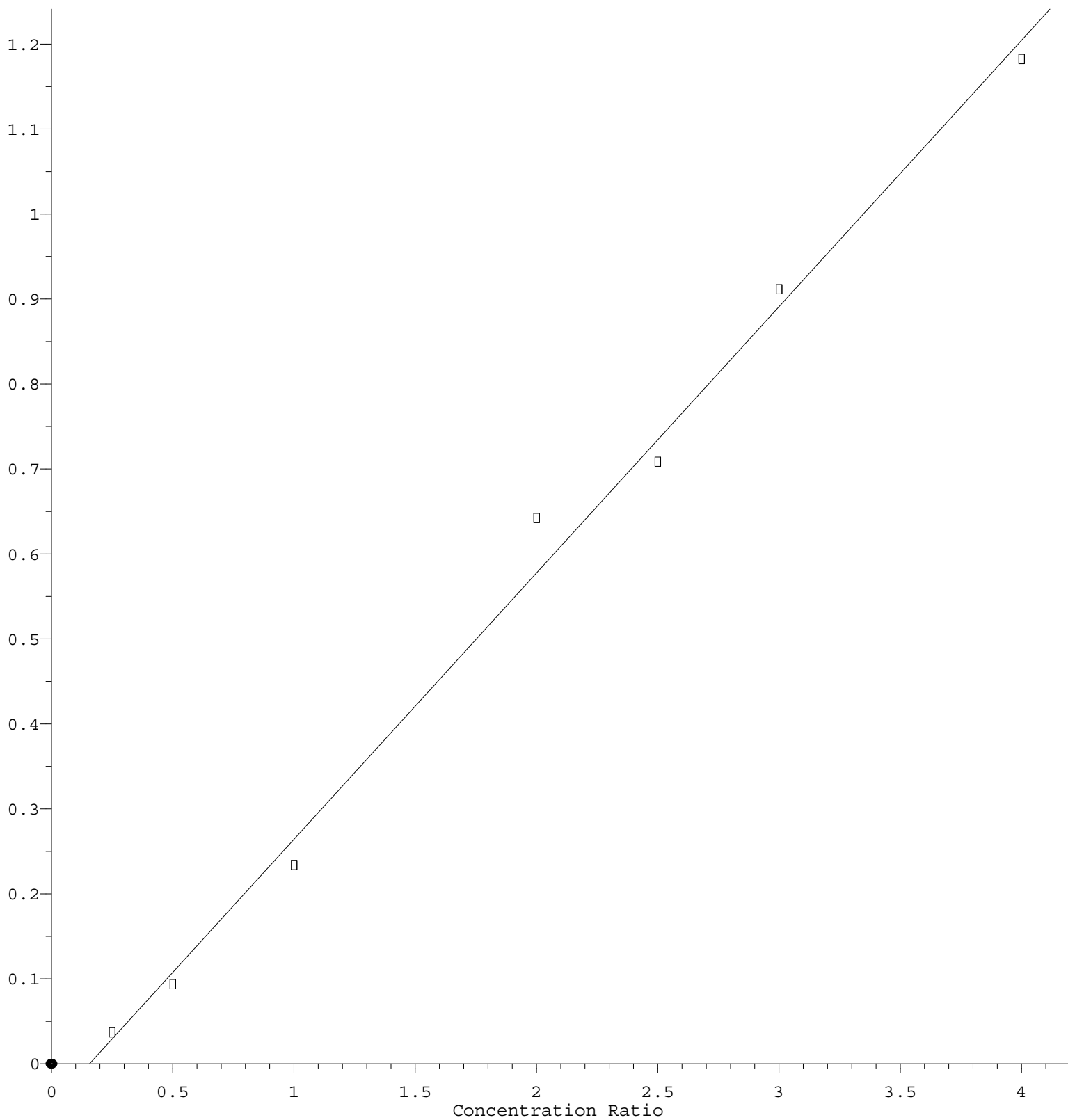
2,4-Dinitrophenol



Response = $8.408 \times 10^{-2} \times \text{Amt} - 3.030 \times 10^{-2}$
 Coef of Det (r^2) = 0.990427 Curve Fit: Linear
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3-Nitroaniline

Response Ratio



$$\text{Response} = 3.135\text{e-}001 * \text{Amt} - 4.926\text{e-}002$$

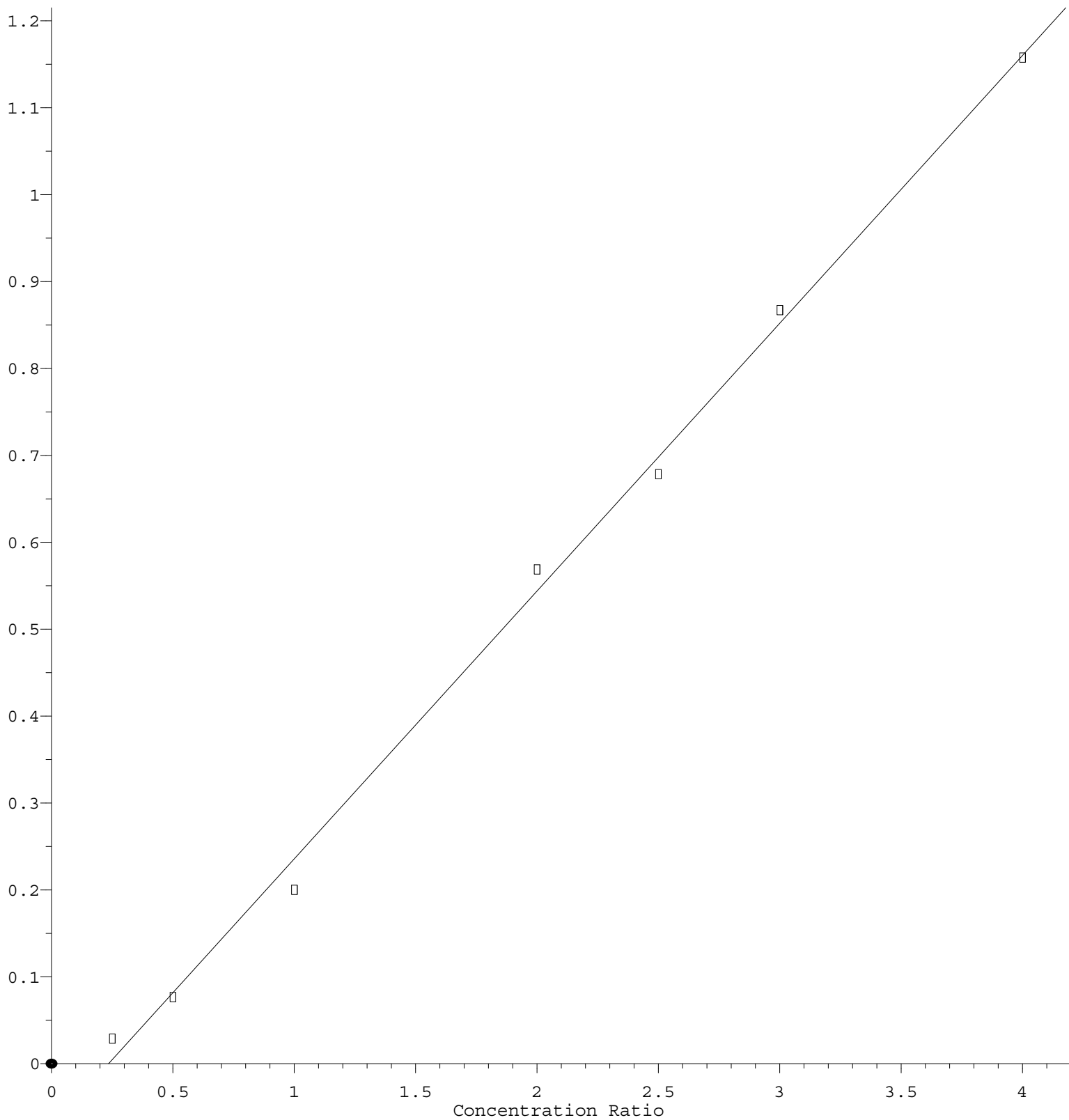
Coef of Det (r^2) = 0.993907 Curve Fit: Linear

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2,6-Dinitrotoluene

Response Ratio



$$\text{Response} = 3.083\text{e-}001 * \text{Amt} - 7.244\text{e-}002$$

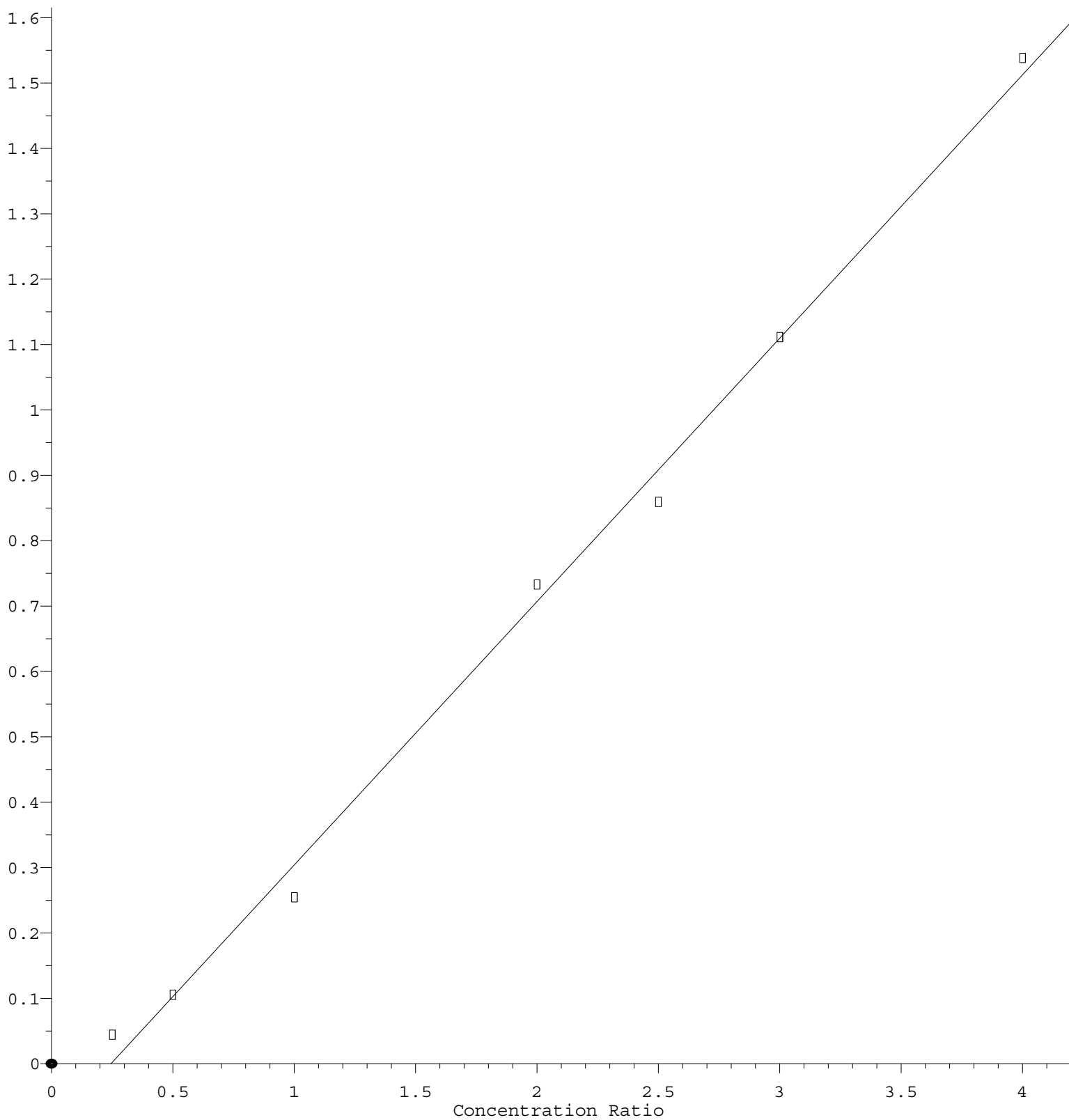
Coef of Det (r^2) = 0.997152 Curve Fit: Linear

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2-Nitroaniline

Response Ratio



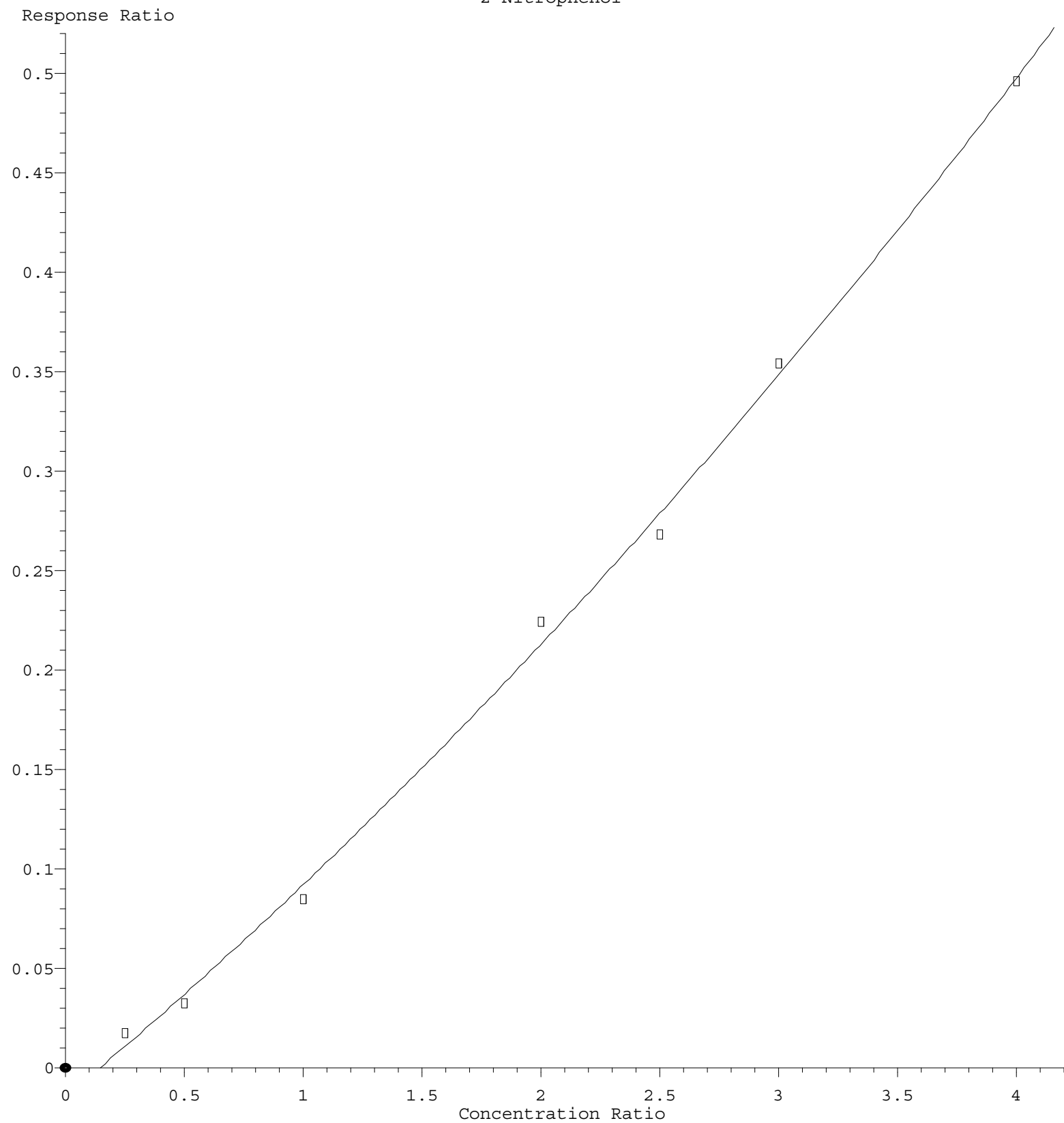
$$\text{Response} = 4.028\text{e-}001 * \text{Amt} - 9.878\text{e-}002$$

Coef of Det (r^2) = 0.995718 Curve Fit: Linear

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2-Nitrophenol



$R = 7.149e-003 A^2 + 9.944e-002 A - 1.454e-002$
 Coef of Det (r^2) = 0.997916 Curve Fit: Quadratic
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