

The Lysosome and HER3 (ErbB3) Selective Anticancer Agent Kahalalide F: Semisynthetic Modifications and Antifungal Lead-Exploration Studies

Supporting Information

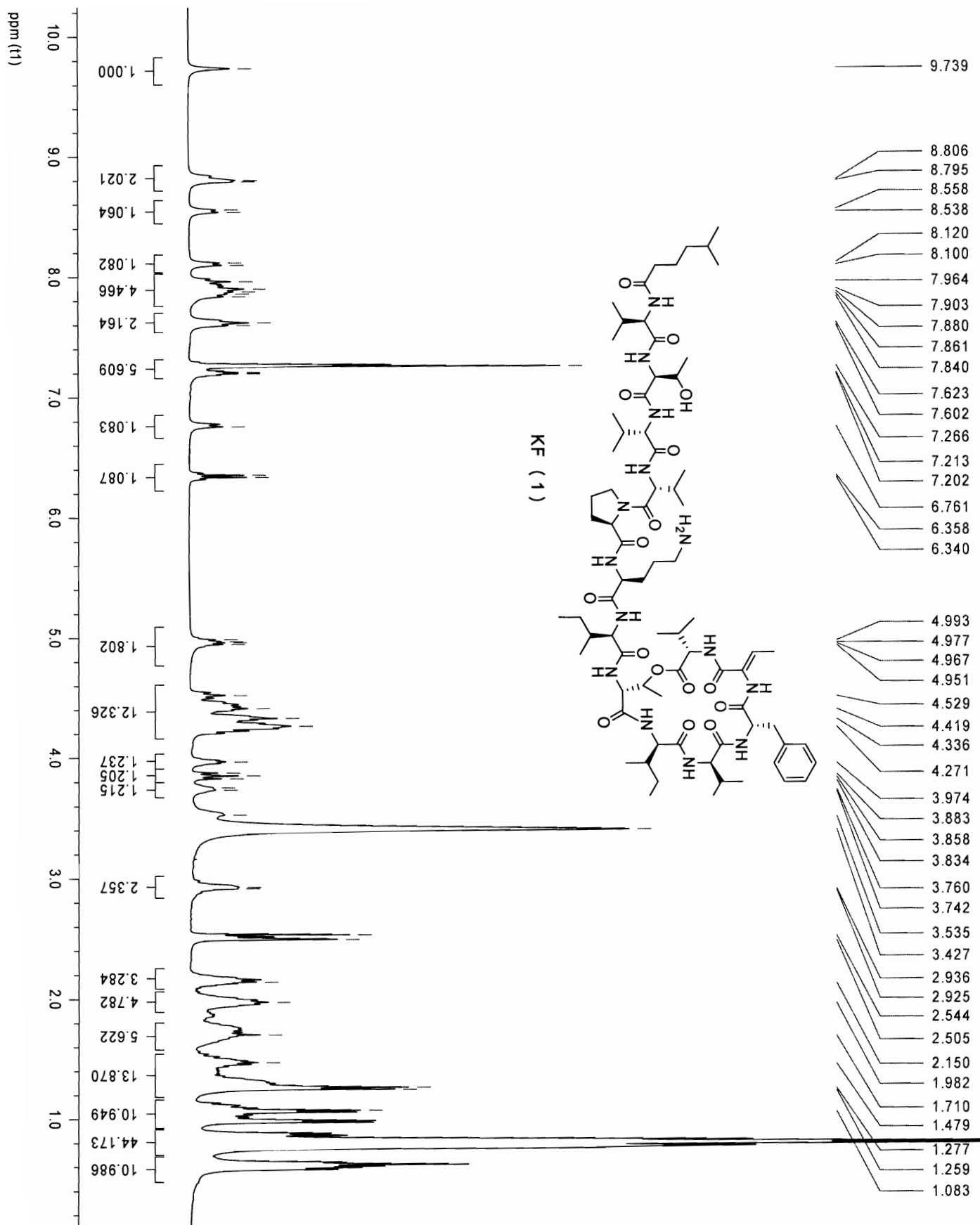
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David E. Wedge² and Mark T. Hamann^{1*}

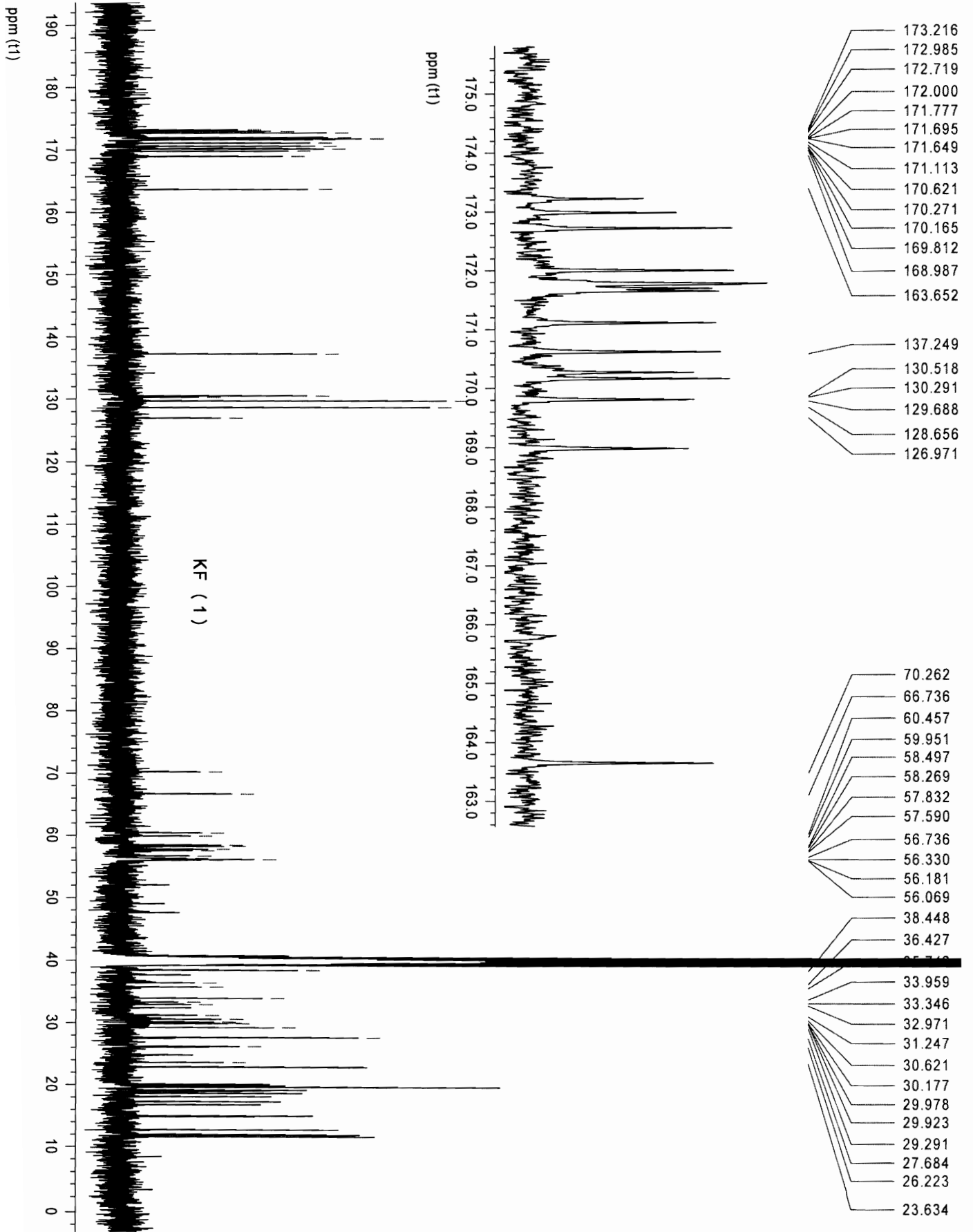
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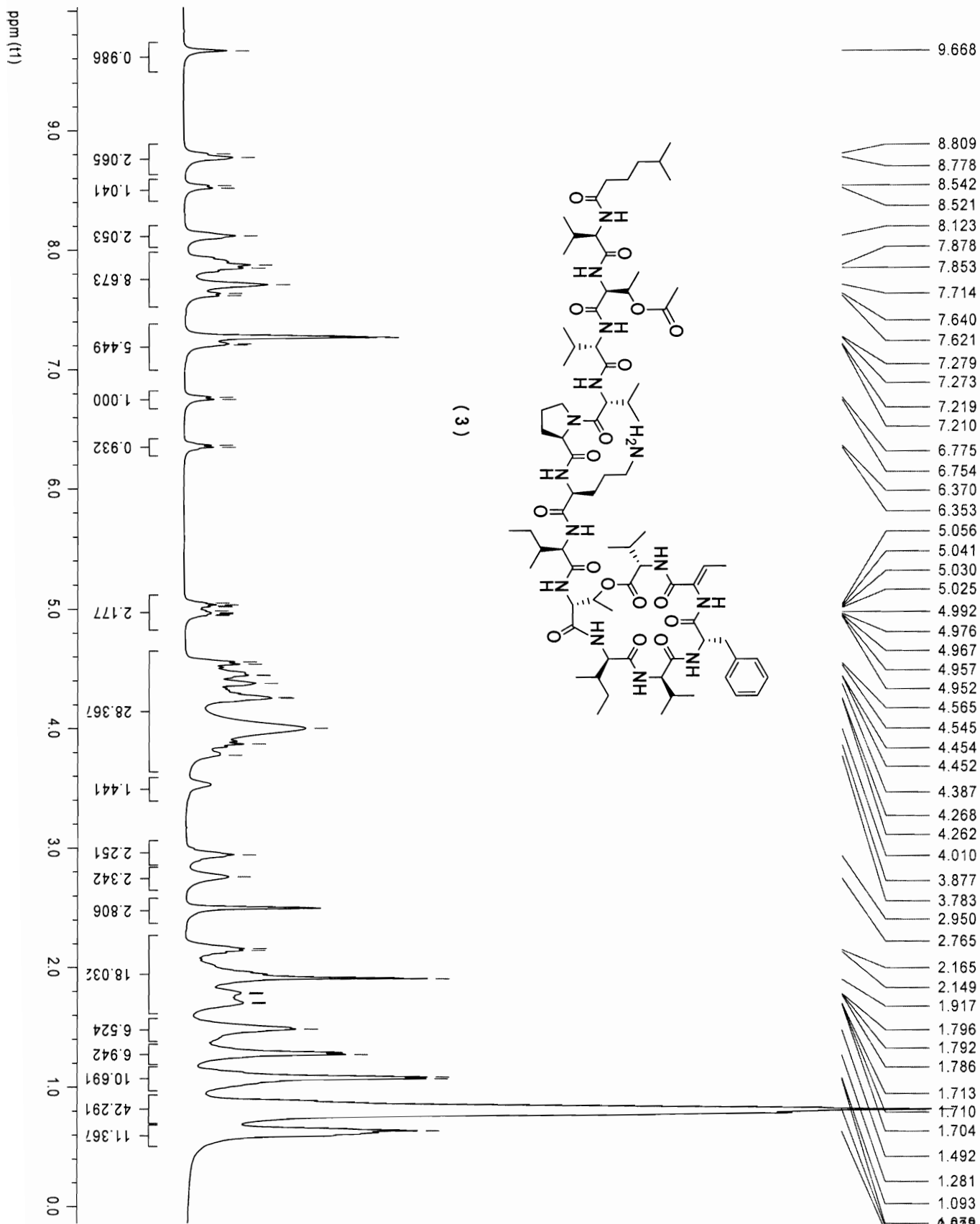
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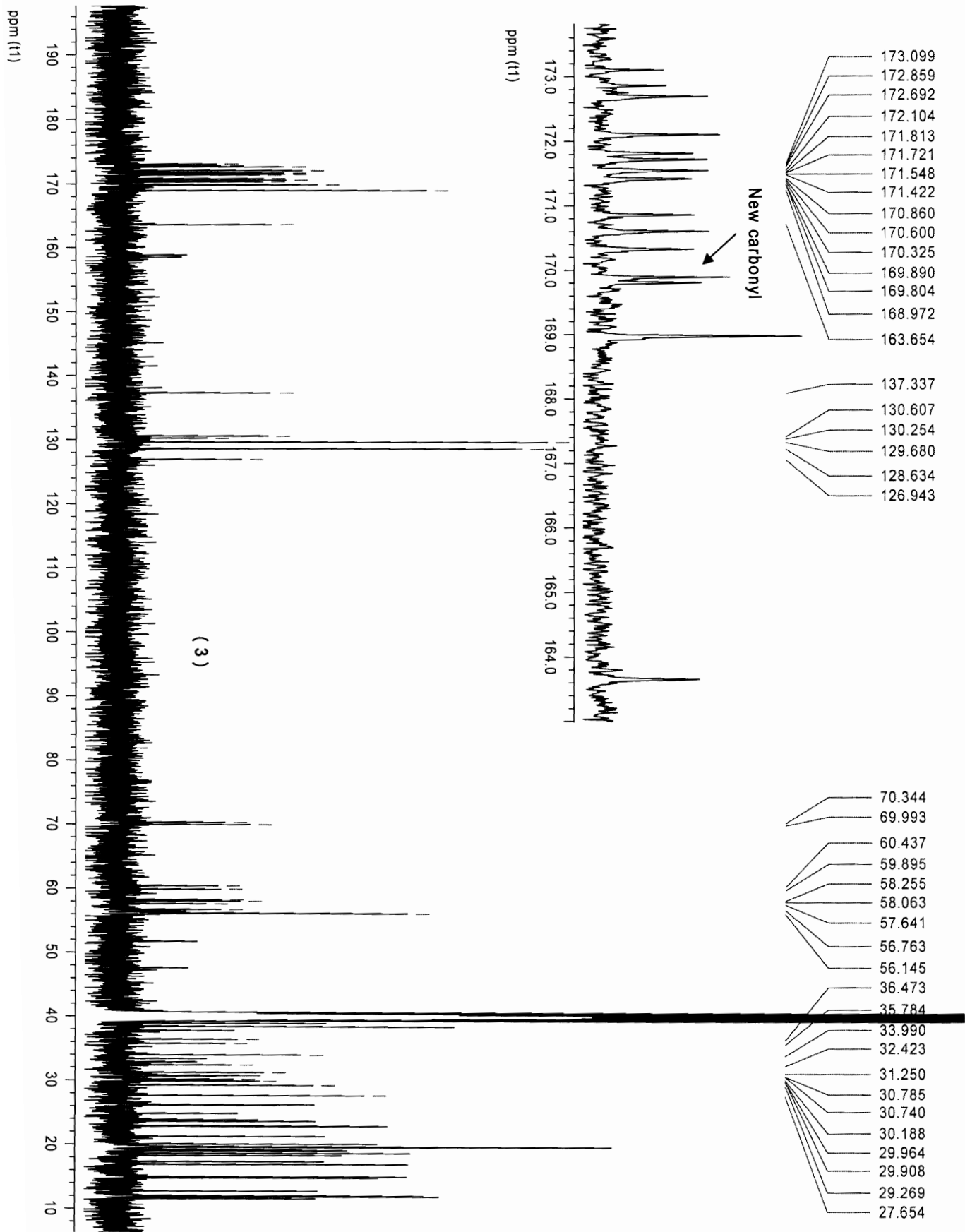
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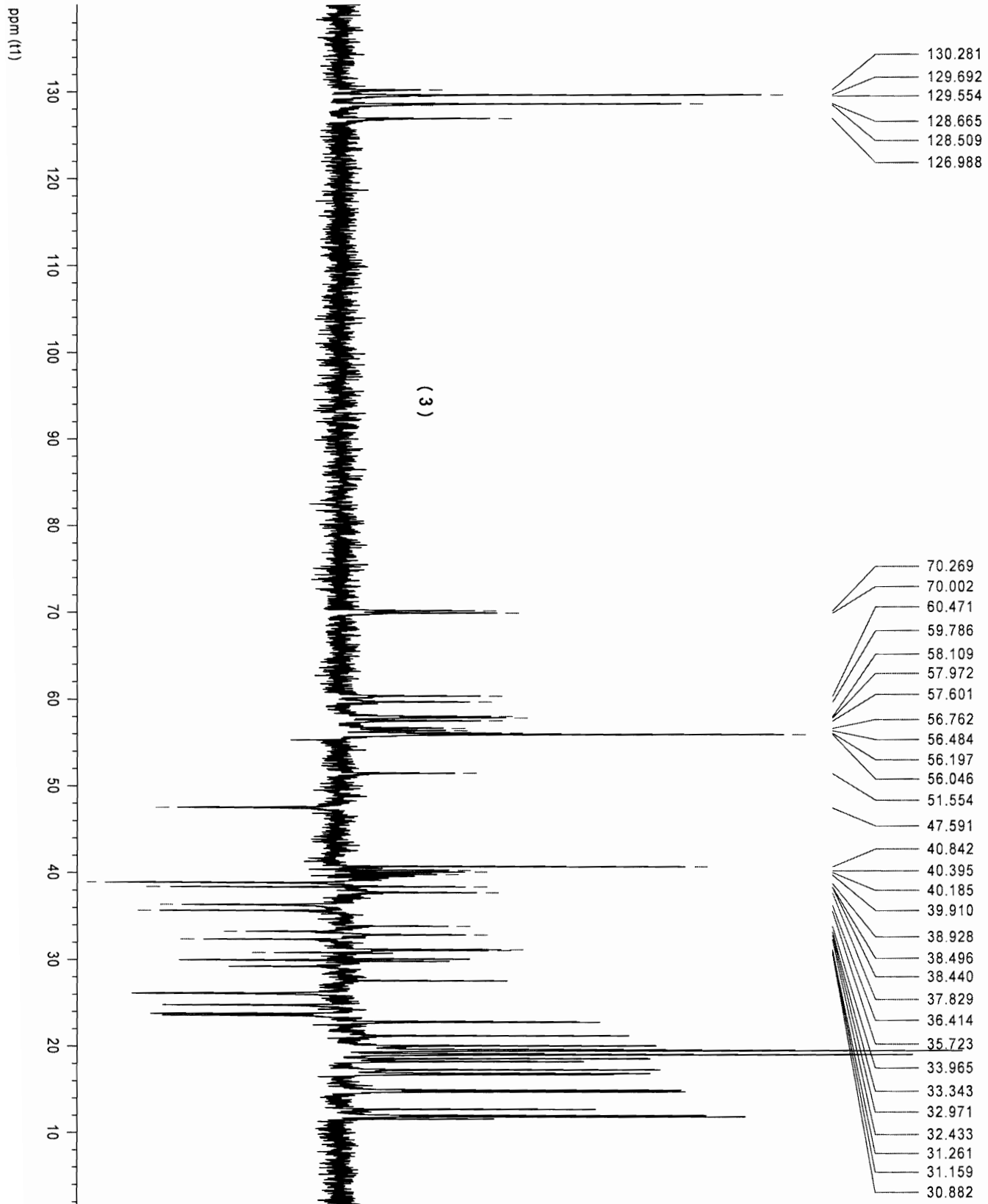


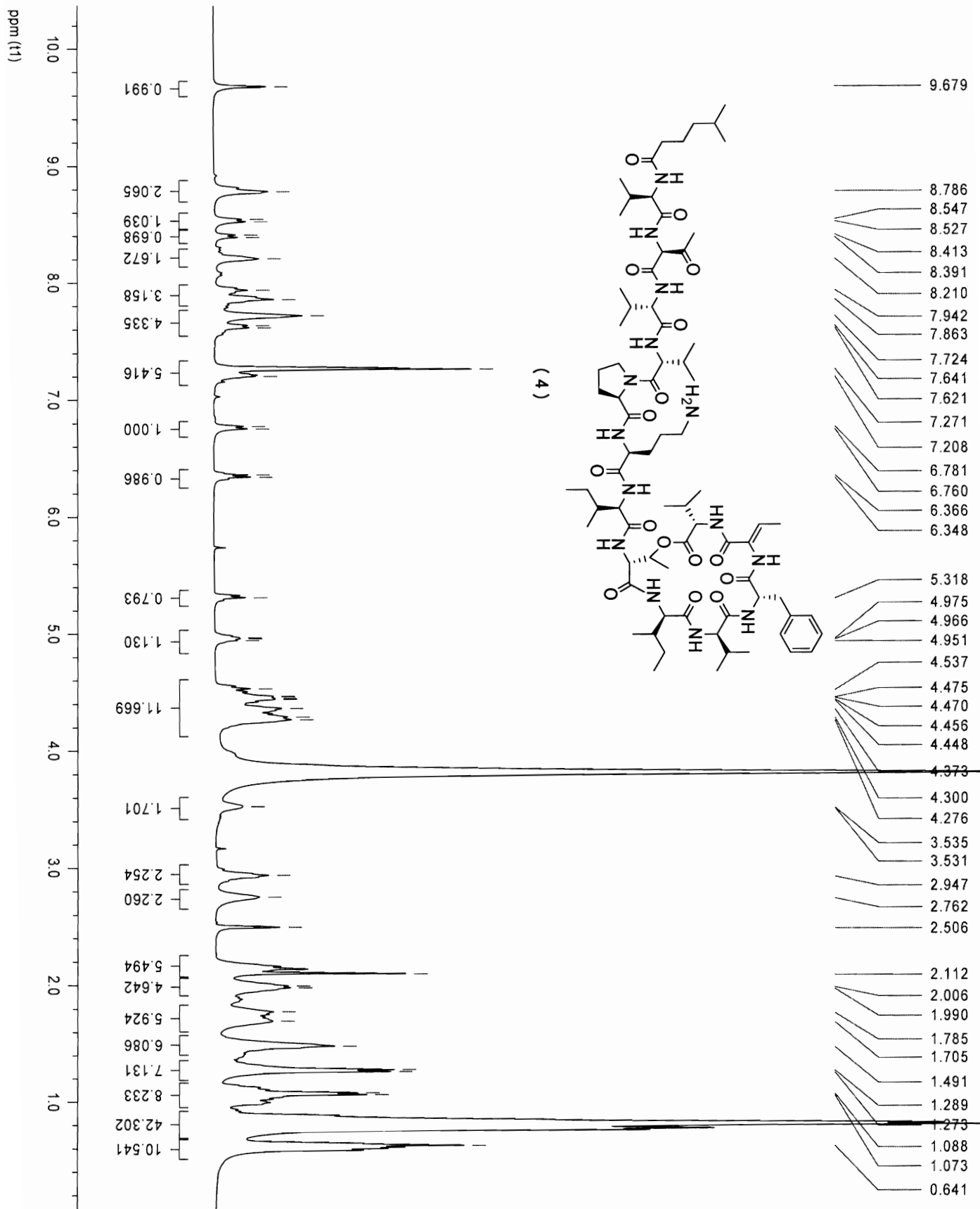


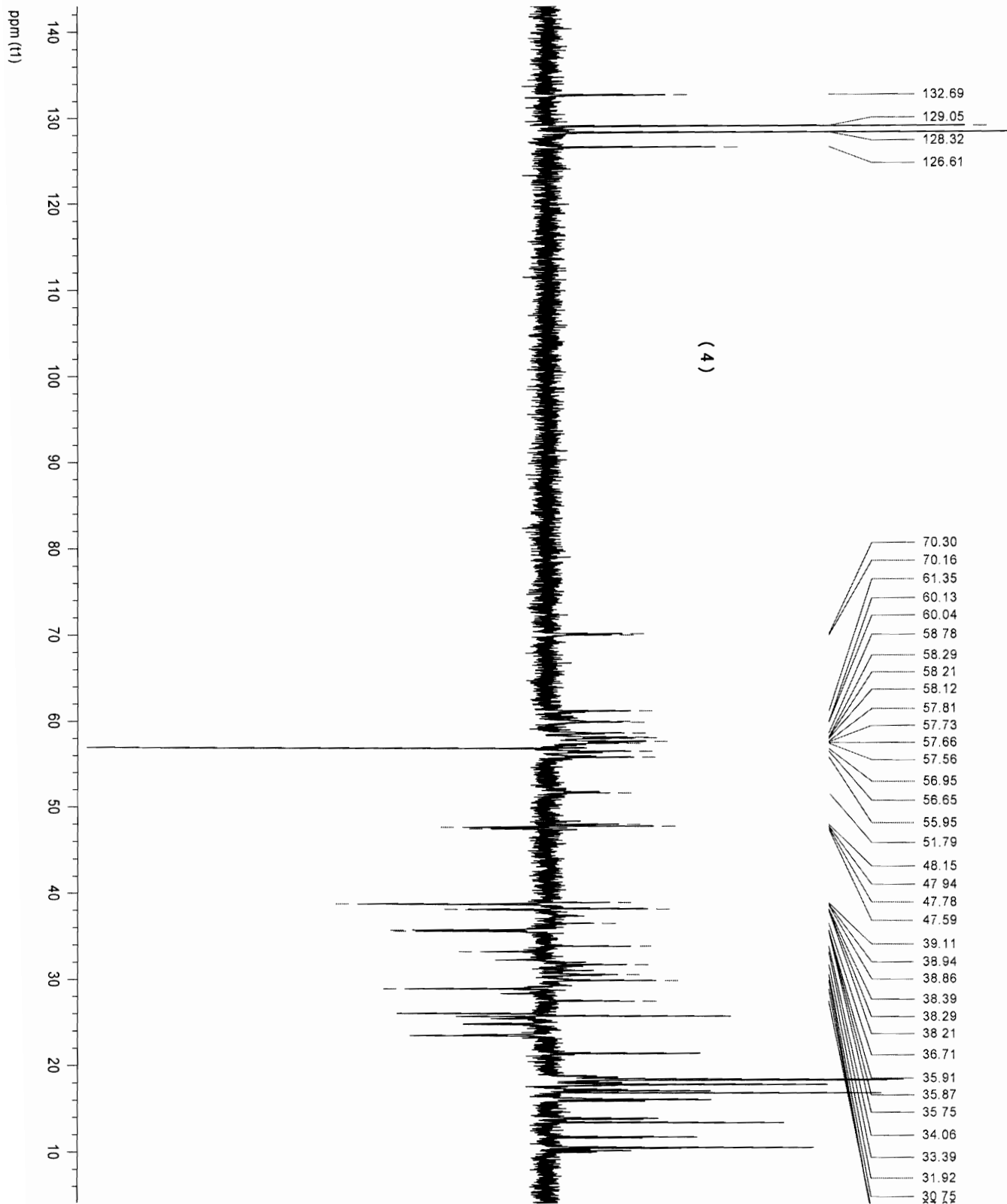


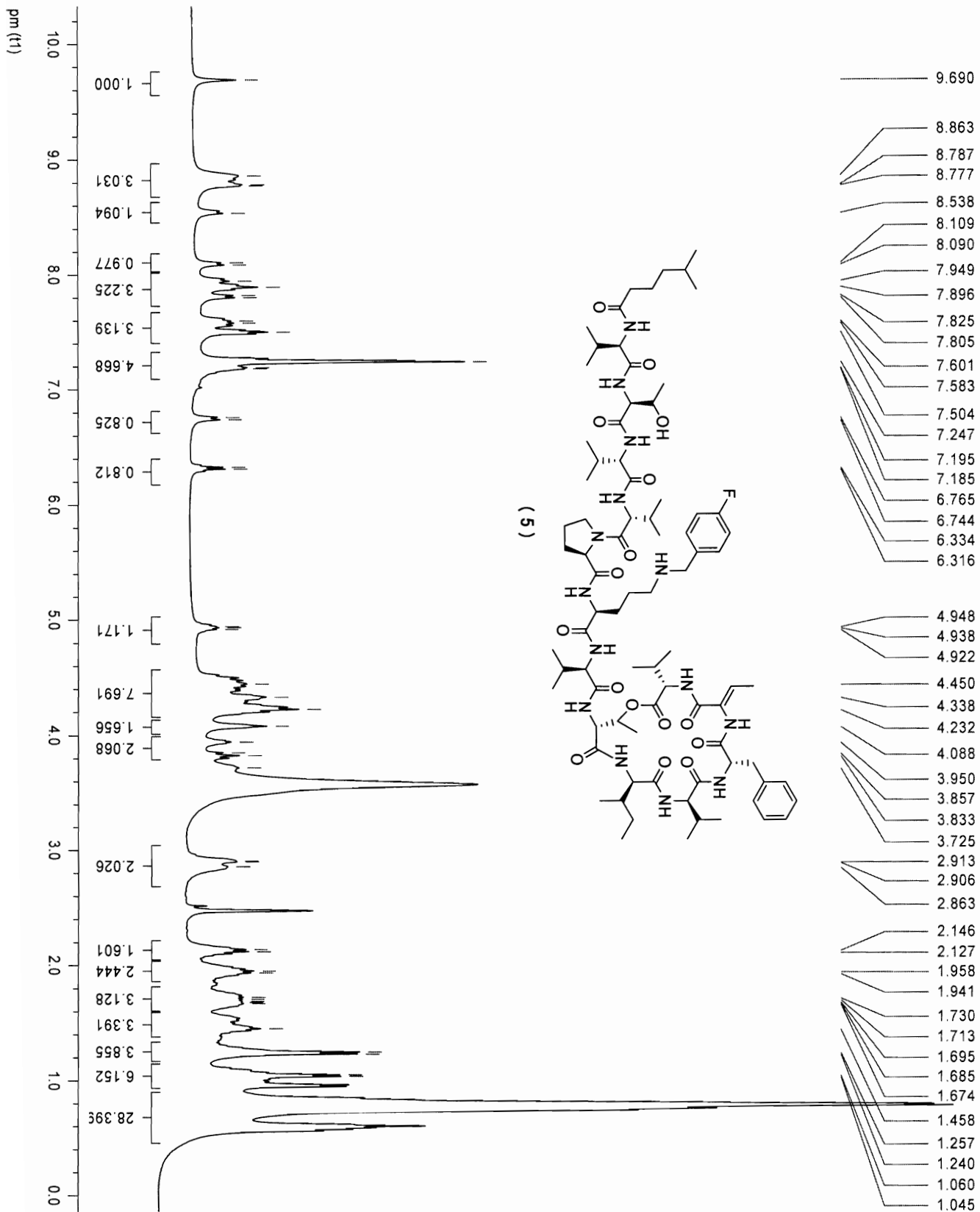
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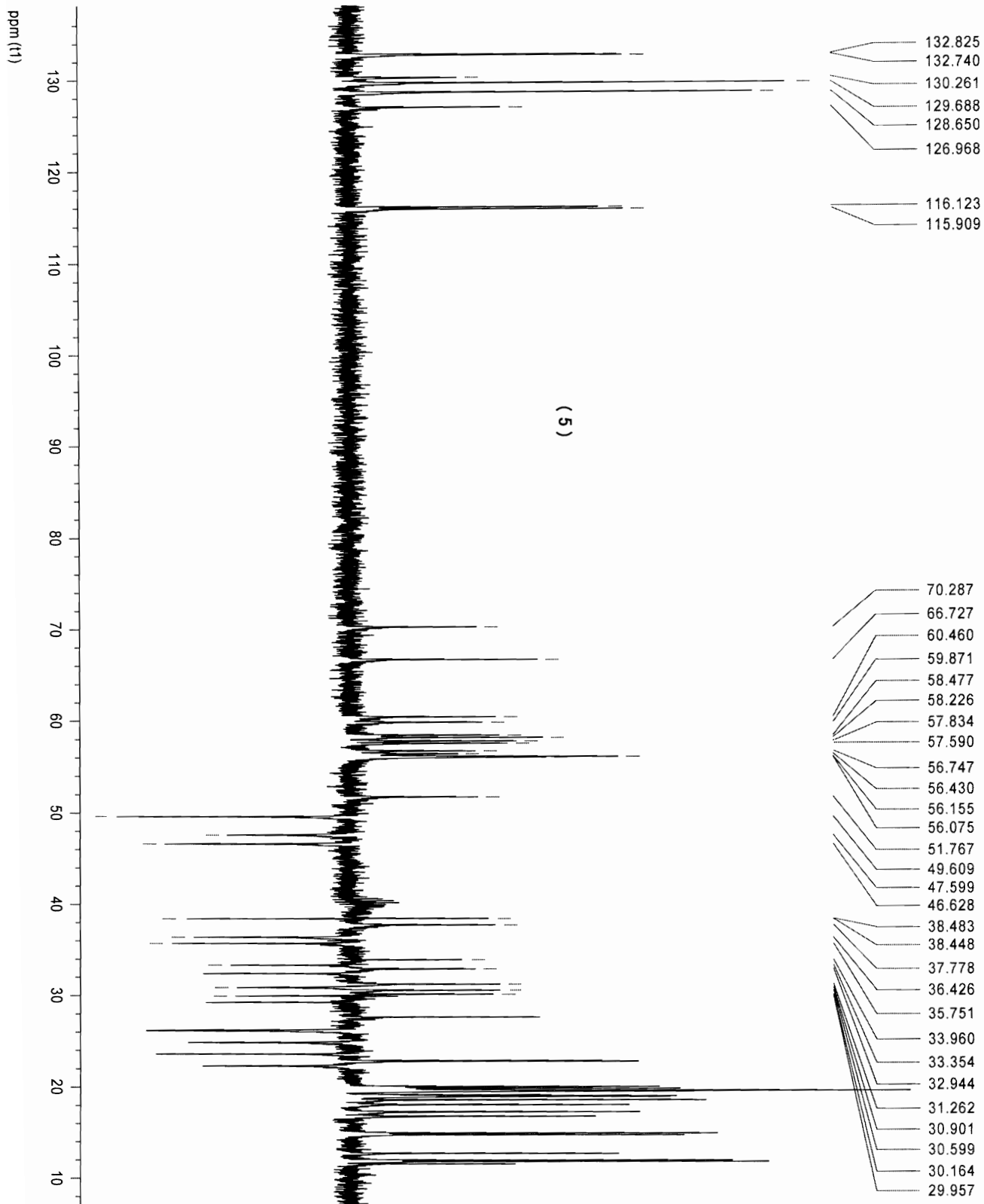


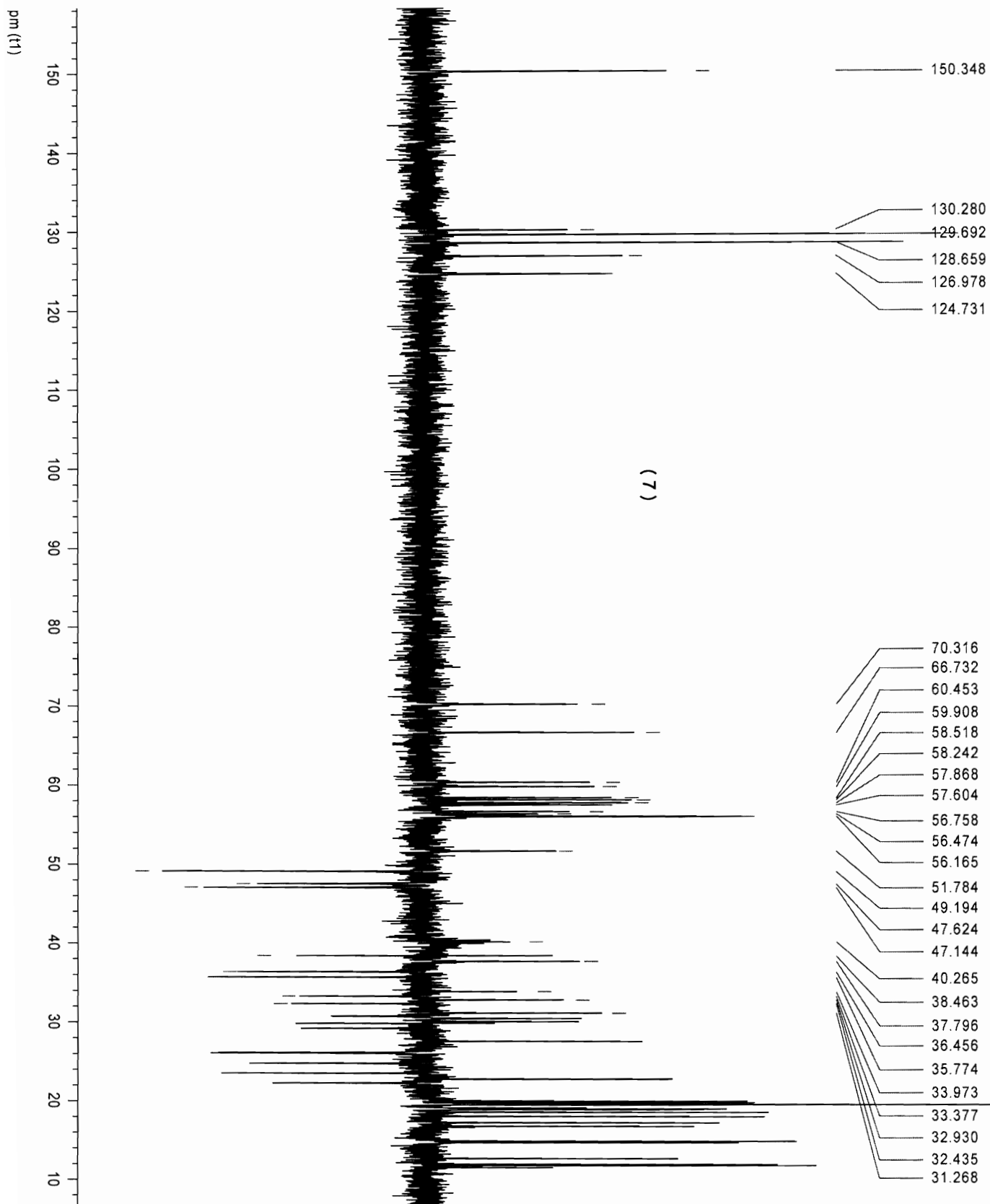


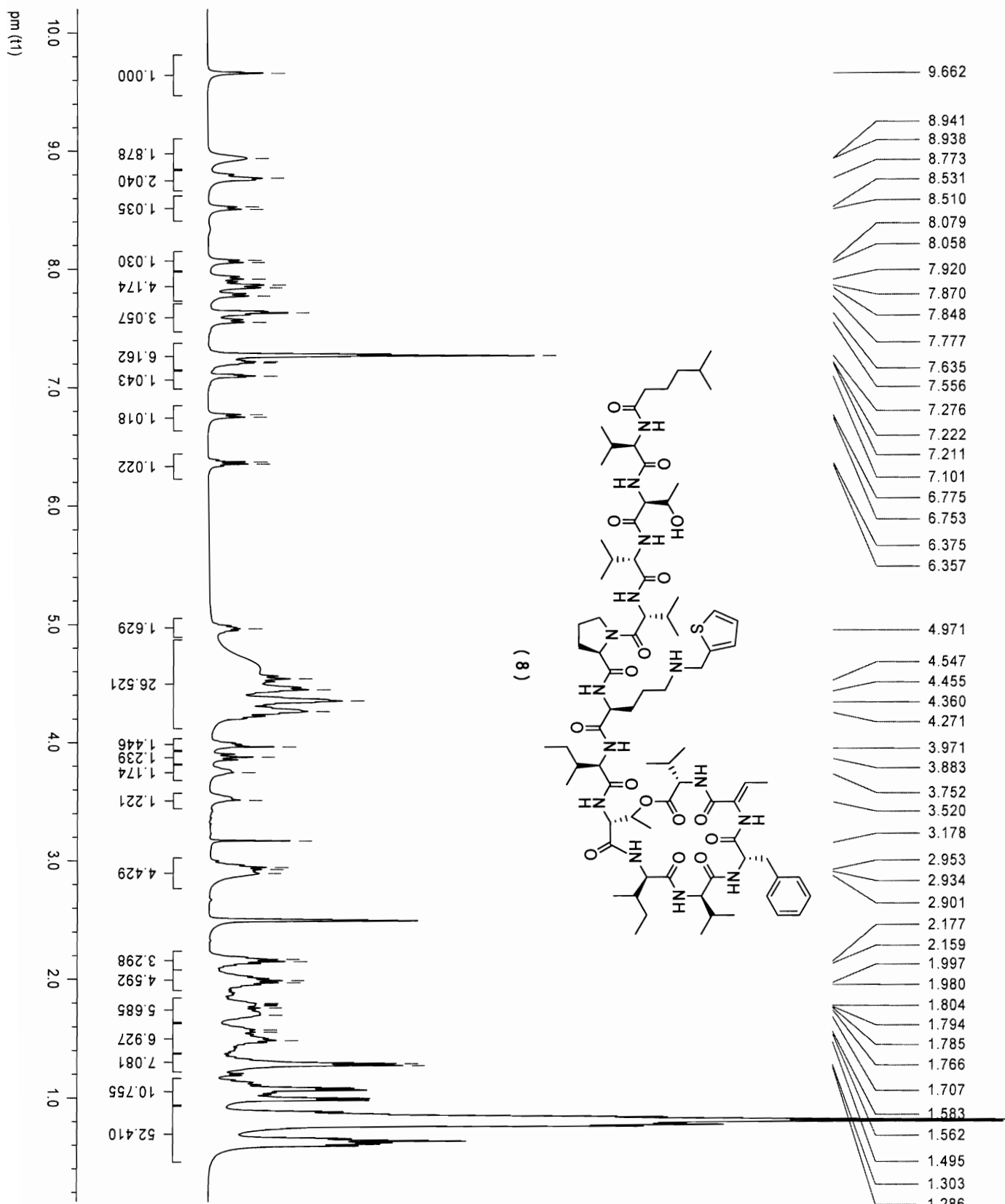


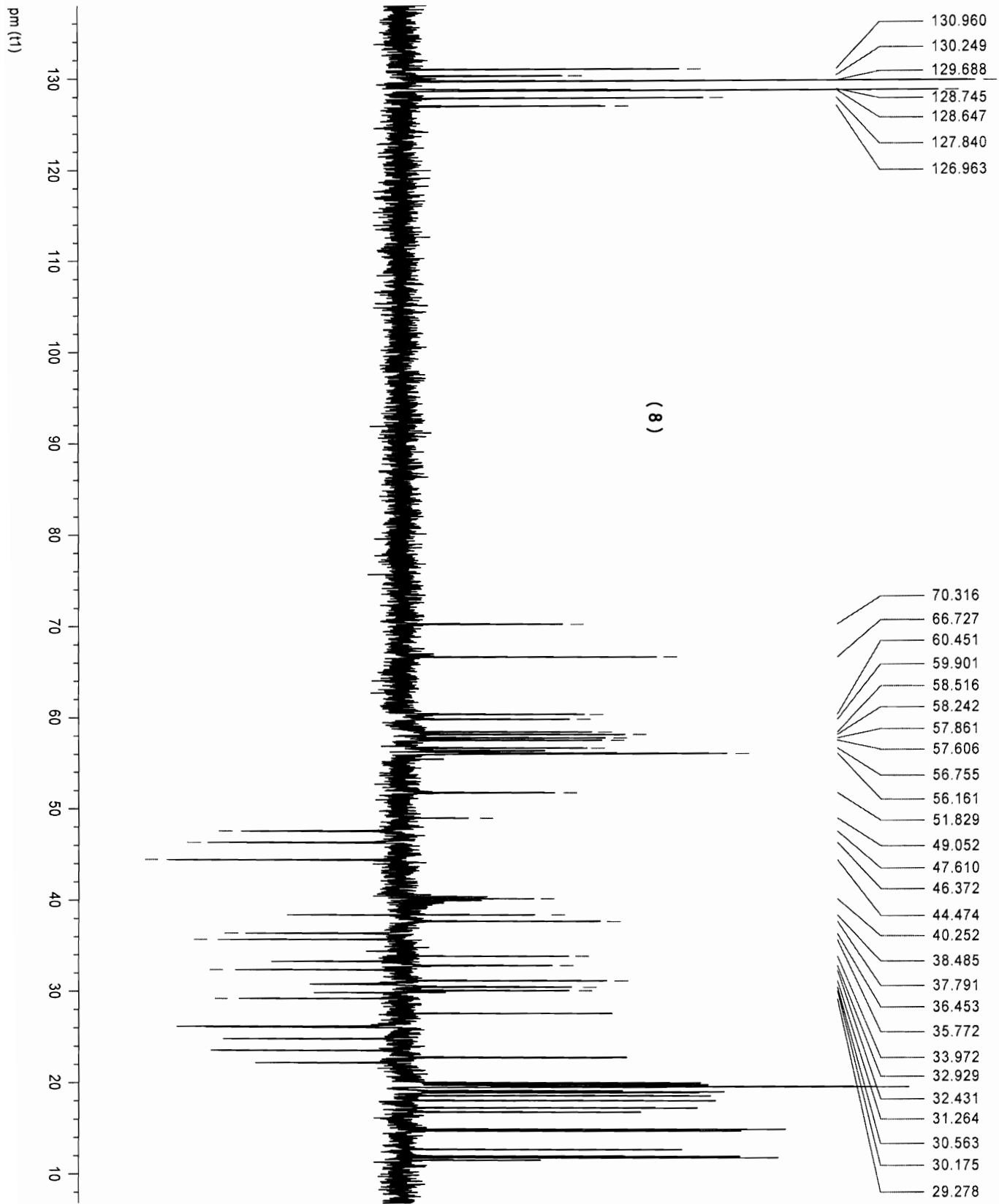


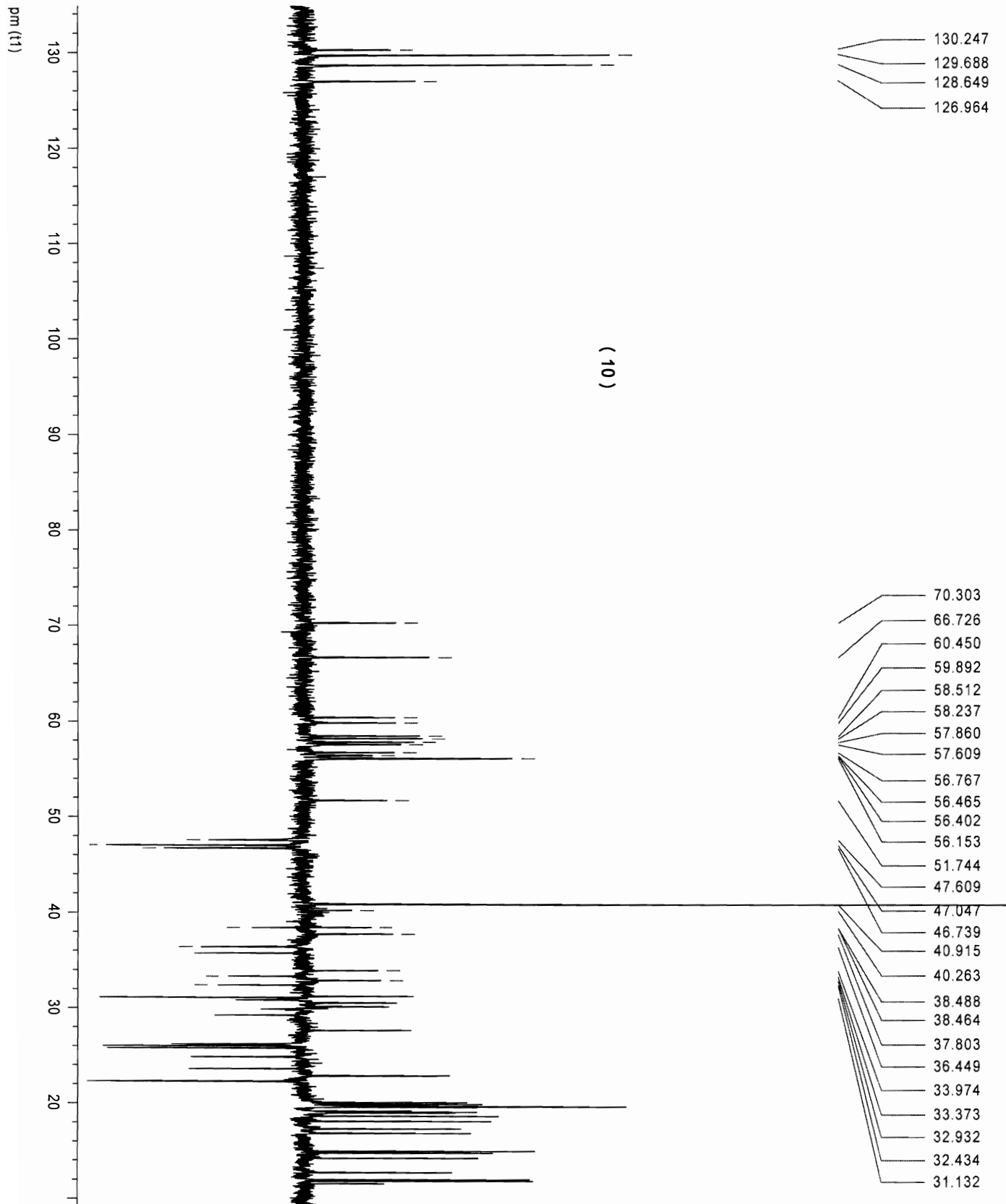


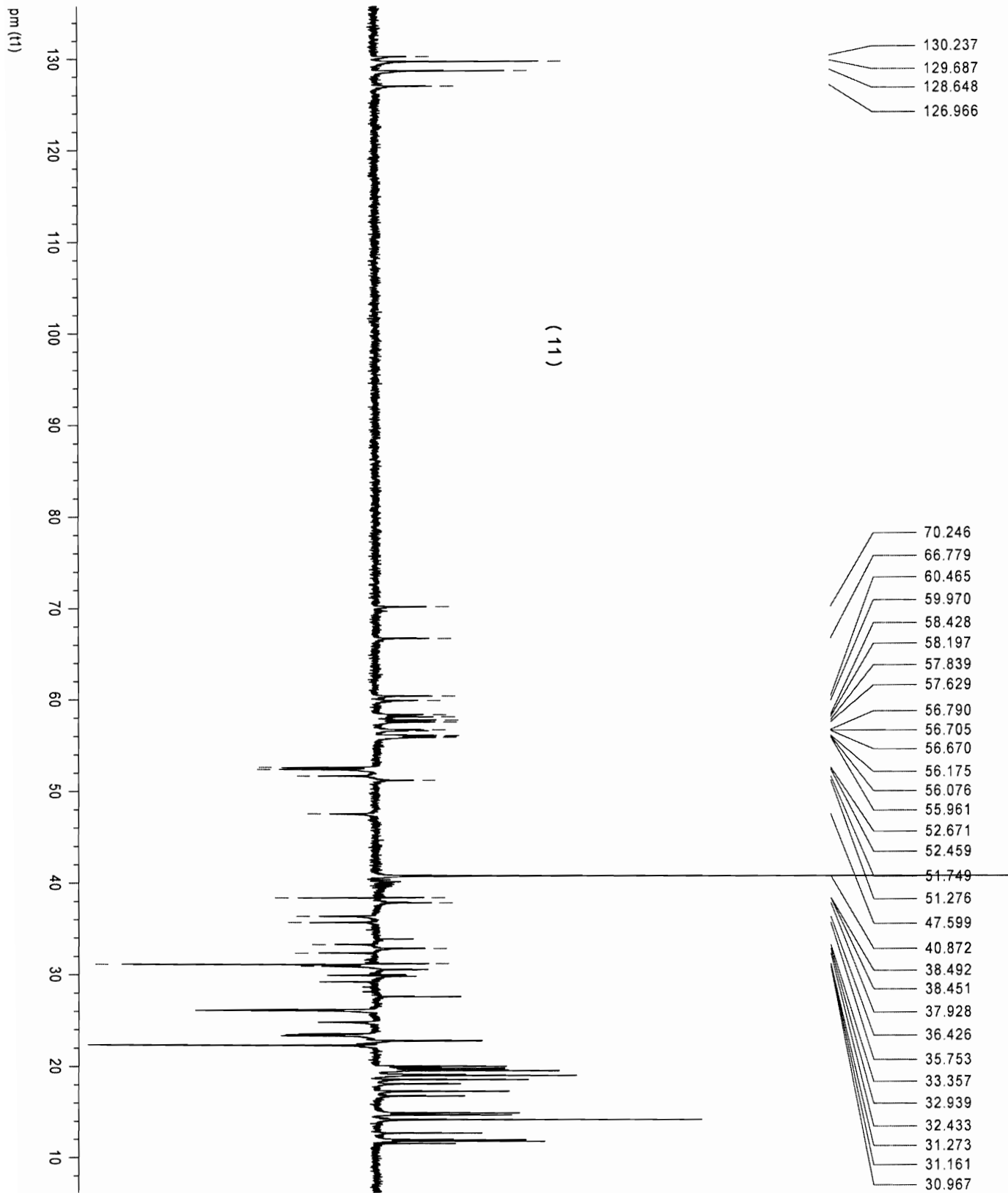


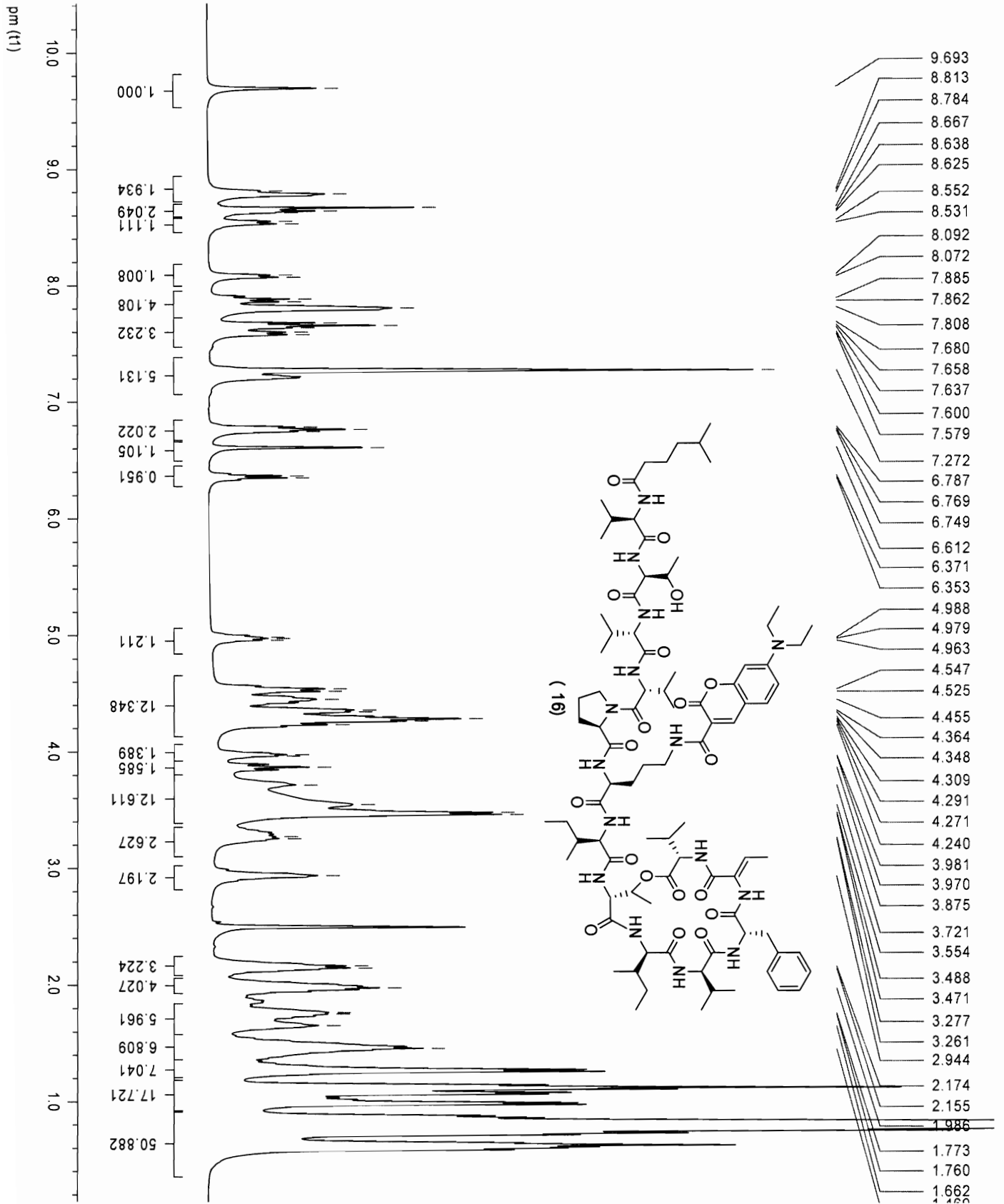


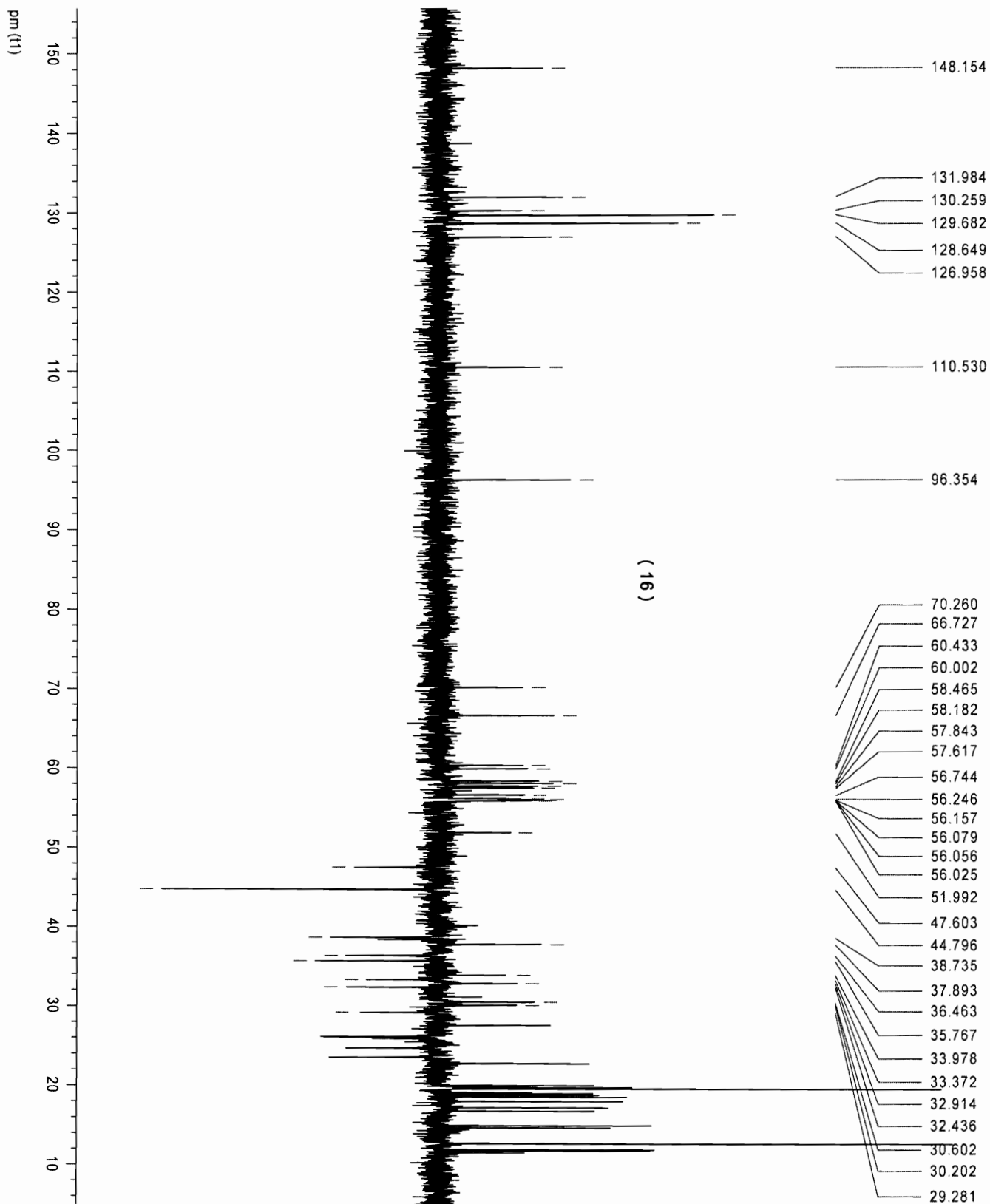


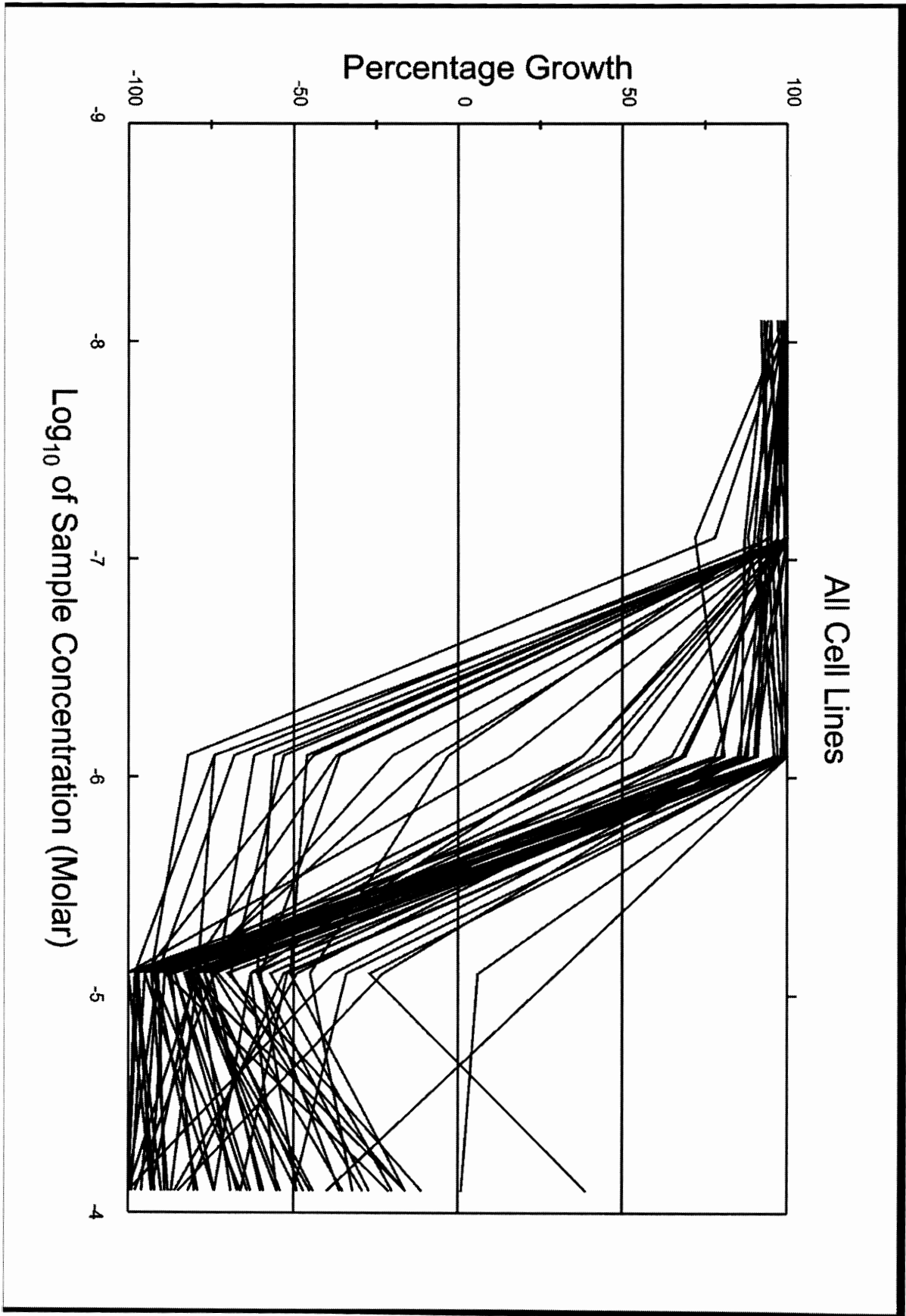


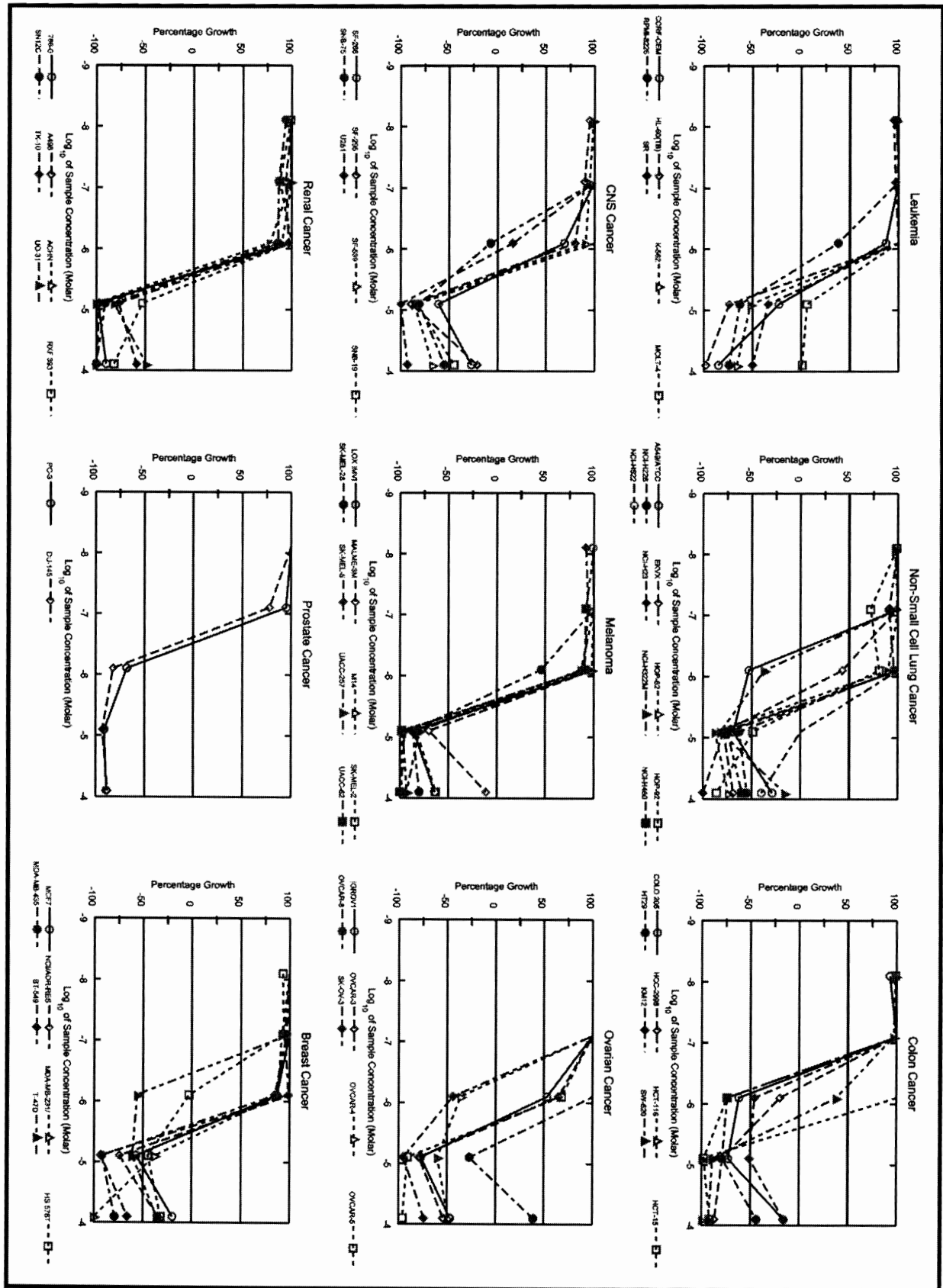




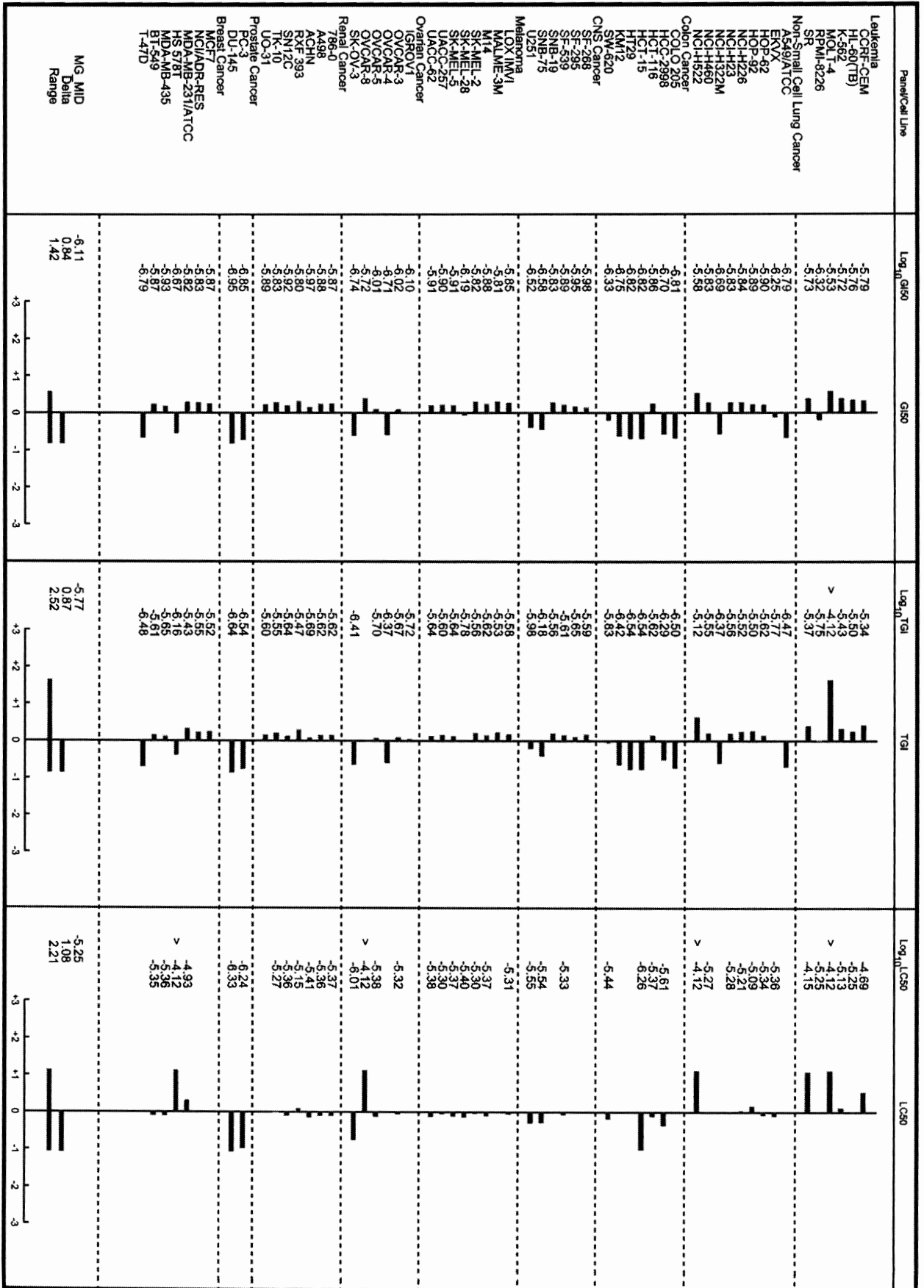


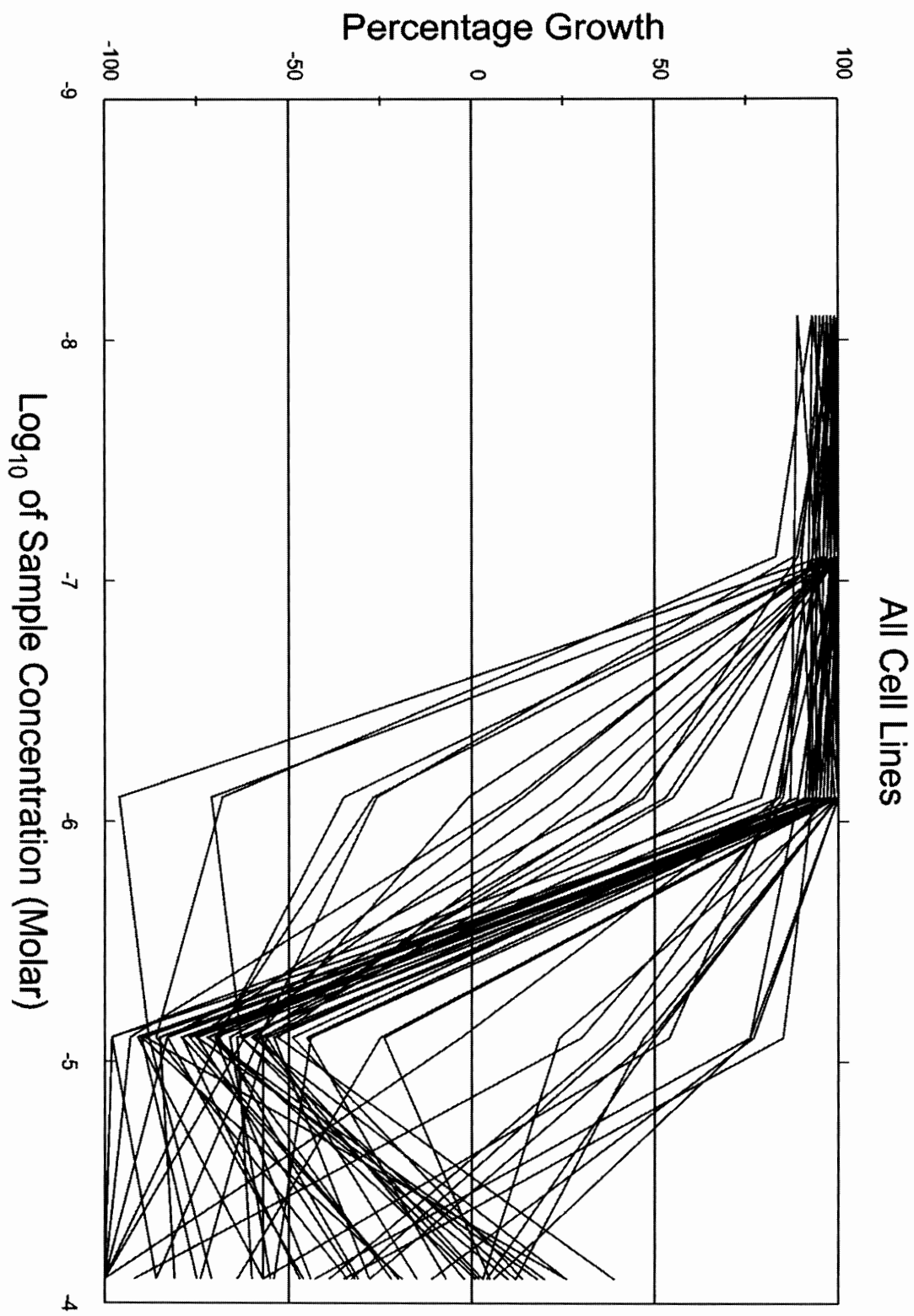


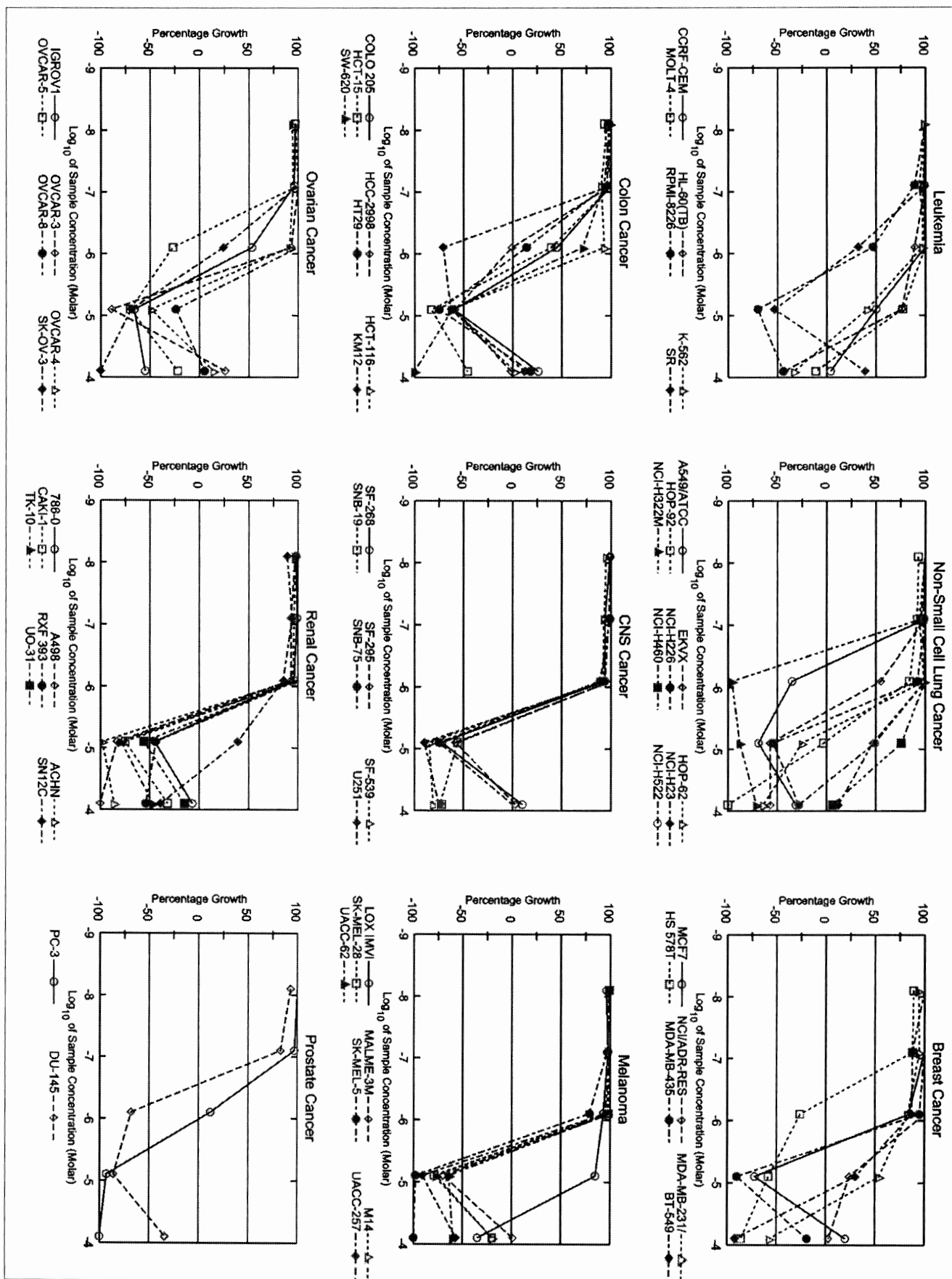




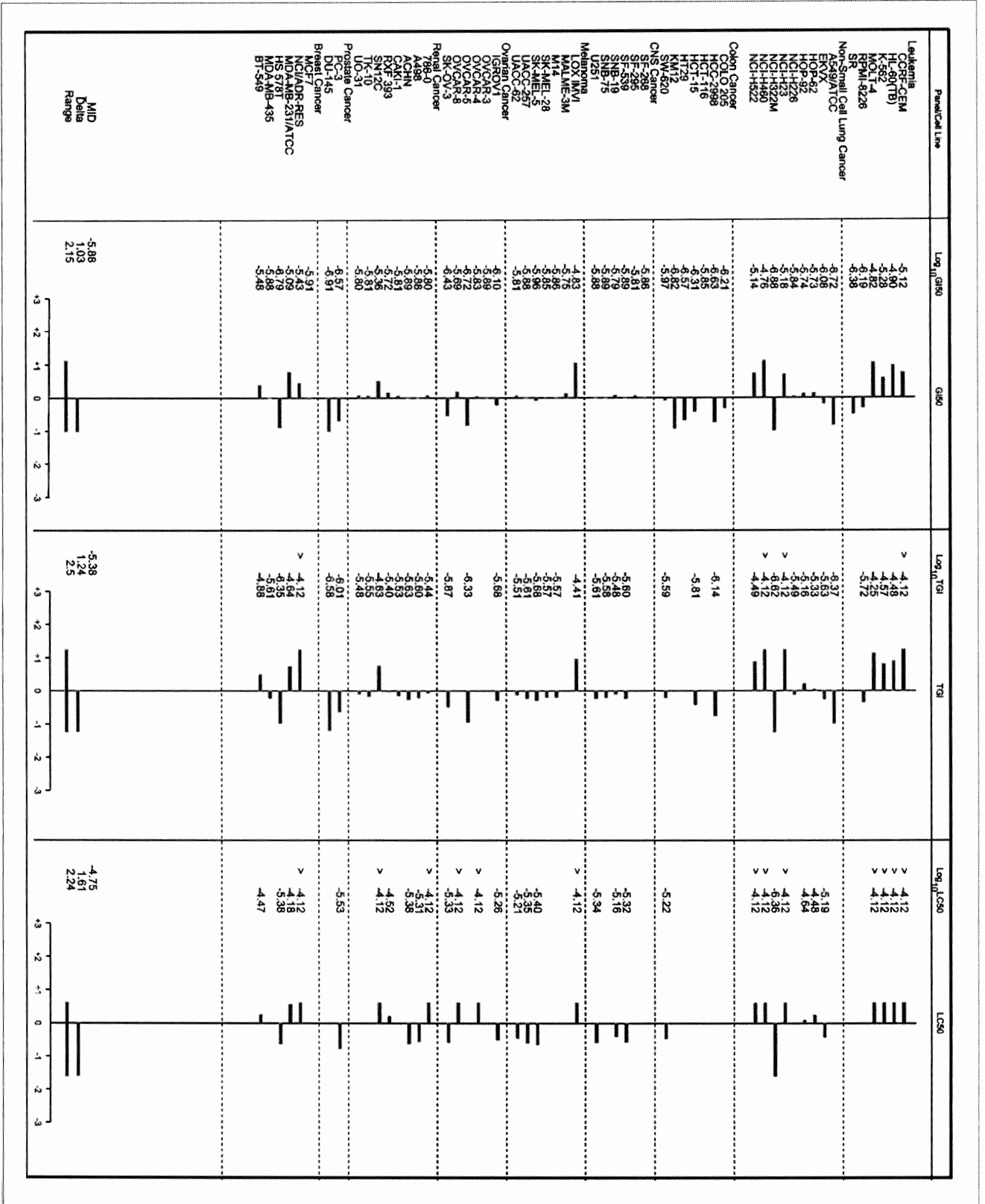
Panel/Cell Line	Time	Log10 Concentration										G50	TGI	LG50				
		CHI	-8.1	-7.1	-6.1	-5.1	-4.1	-3.1	-2.1	-1.1	0.1							
Leukemia	Zero																	
	CCRF-CEM	0.872	2.997	3.290	3.242	2.729	0.688	0.008	0.131	114	112	87	-23	-85	1.63E-6	4.61E-6	2.03E-5	
	HL-60(TB)	0.485	1.178	1.248	1.341	1.323	0.128	0.008	0.008	110	124	121	-74	-98	1.74E-6	3.13E-6	5.64E-6	
	K-562	0.612	1.981	1.966	2.183	2.228	0.296	0.206	0.206	98	115	118	-52	-86	1.89E-6	3.72E-6	7.32E-6	
	NLO1-4	0.355	1.292	1.332	1.432	1.430	0.412	0.369	0.369	104	115	115	6	1	2.89E-6	> 7.50E-6	> 7.50E-6	
Non-Small Cell Lung Cancer	PMH-8226	0.889	3.044	3.005	3.064	1.700	0.330	0.291	0.291	98	101	38	-63	-74	4.78E-7	1.78E-6	5.38E-6	
	SR	0.315	1.385	1.317	1.333	1.422	0.209	0.150	0.150	89	97	105	-34	-50	1.88E-6	4.30E-6	7.03E-6	
Colon Cancer	AS49ATC	0.311	1.434	1.512	1.444	0.147	0.096	0.222	0.222	107	101	-53	-69	-29	1.61E-7	3.40E-7	4.94E-6	
	EXVX	0.489	1.287	1.324	1.257	0.814	0.006	0.146	0.146	107	89	43	-79	-89	5.69E-7	1.69E-6	4.34E-6	
	HOP-62	0.185	0.587	0.547	0.598	0.519	0.023	0.033	0.033	97	103	80	-88	-74	1.28E-6	2.40E-6	4.59E-6	
	HOP-62	0.918	1.462	1.468	1.309	1.357	0.143	0.143	0.143	99	72	81	-49	-86	1.30E-6	1.30E-6	8.18E-6	
	NCH4226	0.473	1.054	1.112	1.010	1.040	0.176	0.213	0.213	108	96	96	-63	-55	1.48E-6	3.02E-6	8.22E-6	
	NCH423	0.481	1.306	1.382	1.408	1.328	0.105	0.002	0.002	108	113	103	-79	-100	1.48E-6	2.78E-6	5.21E-6	
	NCH432M	0.554	1.249	1.279	1.385	0.347	0.089	0.085	0.085	104	117	37	-82	-18	2.03E-7	1.48E-6	1.48E-6	
	NCH4460	0.238	1.591	2.101	2.053	2.017	0.089	0.085	0.085	108	104	101	-75	-40	1.47E-6	2.82E-6	5.43E-6	
	NCH4522	0.854	2.079	2.112	2.253	2.208	0.353	0.316	0.316	103	114	111	.	40	2.65E-6	7.34E-6	> 7.50E-6	
	CNS Cancer	COLO-205	0.211	0.953	0.988	0.989	0.081	0.057	0.177	0.177	93	102	-82	-73	-16	1.89E-7	3.15E-7	3.67E-6
		HCC-2998	0.549	1.588	1.887	1.610	0.441	0.115	0.074	0.074	110	102	-20	-79	-87	2.01E-7	6.17E-7	2.43E-6
		HCC-116	0.124	1.053	1.075	1.091	1.085	-0.006	-0.026	-0.026	102	104	103	-100	-100	1.37E-6	2.42E-6	4.28E-6
HCC-116		0.223	1.236	1.252	1.339	0.059	0.006	0.018	0.018	104	104	-74	-98	-92	1.51E-7	2.89E-7	5.52E-7	
HT29		0.188	1.129	1.153	1.188	0.044	0.038	0.094	0.094	103	104	-74	-79	-44	1.51E-7	2.88E-7	4.28E-6	
KM12		0.388	1.483	1.492	1.575	0.211	0.192	0.325	0.325	101	108	-46	-51	-16	1.79E-7	3.79E-7	4.96E-6	
SW-620		0.094	0.688	0.661	0.653	0.310	0.010	0.007	0.007	99	97	38	-89	-93	4.65E-7	1.48E-6	3.67E-6	
Ovarian Cancer		IGROV1	0.818	1.930	1.980	2.033	1.404	0.188	0.435	0.435	105	109	53	-77	-47	7.87E-7	1.91E-6	4.75E-6
		DVCAH-3	0.406	0.741	0.801	0.799	0.626	0.087	0.165	0.165	118	117	65	-79	-54	9.60E-7	2.14E-6	4.75E-6
		DVCAH-4	0.443	1.019	1.057	1.076	0.284	0.177	0.227	0.227	107	110	-36	-60	-49	1.93E-7	4.25E-7	4.16E-6
	DVCAH-5	0.366	0.800	0.832	0.845	0.662	0.034	0.014	0.014	107	110	68	-91	-86	9.78E-7	2.01E-6	4.16E-6	
	DVCAH-8	0.099	0.439	0.480	0.447	0.449	0.072	0.233	0.233	106	102	103	-27	39	1.91E-6	1.91E-6	> 7.50E-6	
	SK-OV-3	0.651	1.447	1.595	1.525	0.363	0.030	0.170	0.170	117	110	-44	-95	-74	1.83E-7	3.87E-7	9.72E-7	
	Renal Cancer	786-0	0.322	1.311	1.301	1.346	1.324	0.005	0.031	0.031	99	104	101	-98	-90	1.39E-6	2.41E-6	4.29E-6
A488		1.109	1.739	1.746	1.701	1.723	0.039	-0.027	-0.027	101	94	97	-97	-100	1.32E-6	2.38E-6	4.32E-6	
ACHN		0.204	0.793	0.801	0.790	0.654	-0.004	0.001	0.001	101	89	78	-100	-100	1.08E-6	2.06E-6	3.83E-6	
RFX-383		0.788	1.197	1.192	1.145	1.189	0.358	0.141	0.141	99	88	100	-53	-82	1.59E-6	3.37E-6	7.12E-6	
SN12C		0.613	2.358	2.251	2.128	2.114	0.054	-0.022	-0.022	94	87	86	-91	-100	1.20E-6	2.29E-6	4.39E-6	
TK-10		0.658	1.300	1.304	1.304	1.311	0.154	0.271	0.271	106	101	102	-77	-59	1.48E-6	2.79E-6	5.32E-6	
UC-31		0.525	1.402	1.472	1.473	1.316	0.094	0.288	0.288	108	108	90	-82	-49	1.28E-6	2.50E-6	5.32E-6	
Prostate Cancer		PC-3	0.356	1.134	1.139	1.099	0.114	0.032	0.040	0.040	101	95	-88	-91	-89	1.42E-7	2.87E-7	5.81E-7
		DU-145	0.220	0.917	0.920	0.764	0.039	0.015	0.026	0.026	100	78	-82	-93	-88	1.12E-7	2.30E-7	4.72E-7
Breast Cancer		MCF7	0.287	1.754	1.777	1.890	1.589	0.123	0.231	0.231	102	107	87	-57	-20	1.39E-6	3.02E-6	3.78E-6
	NCI/ADR-RES	0.406	1.311	1.356	1.328	1.328	0.106	0.263	0.263	105	110	102	-74	-35	1.49E-6	3.85E-6	1.18E-5	
	MDA-MB-231A/TCC	0.377	1.002	1.005	0.983	0.928	0.235	-0.020	-0.020	100	92	88	-36	-100	1.80E-6	3.76E-6	7.32E-6	
	HS 578T	0.426	0.895	0.863	0.865	0.413	0.238	0.288	0.288	93	94	-3	-45	-32	2.12E-7	6.95E-7	6.95E-7	
	MDA-MB-435	0.475	1.555	1.578	1.528	1.389	0.088	0.088	0.088	102	97	85	-42	-79	1.18E-6	2.25E-6	4.32E-6	
	BT-549	0.377	0.755	0.771	0.738	0.750	0.028	0.130	0.130	104	95	99	-80	-68	1.35E-6	2.48E-6	4.48E-6	
	T-47D	0.627	1.274	1.352	1.290	0.278	0.246	0.403	0.403	112	102	-56	-61	-38	1.81E-7	3.35E-7	4.48E-6	

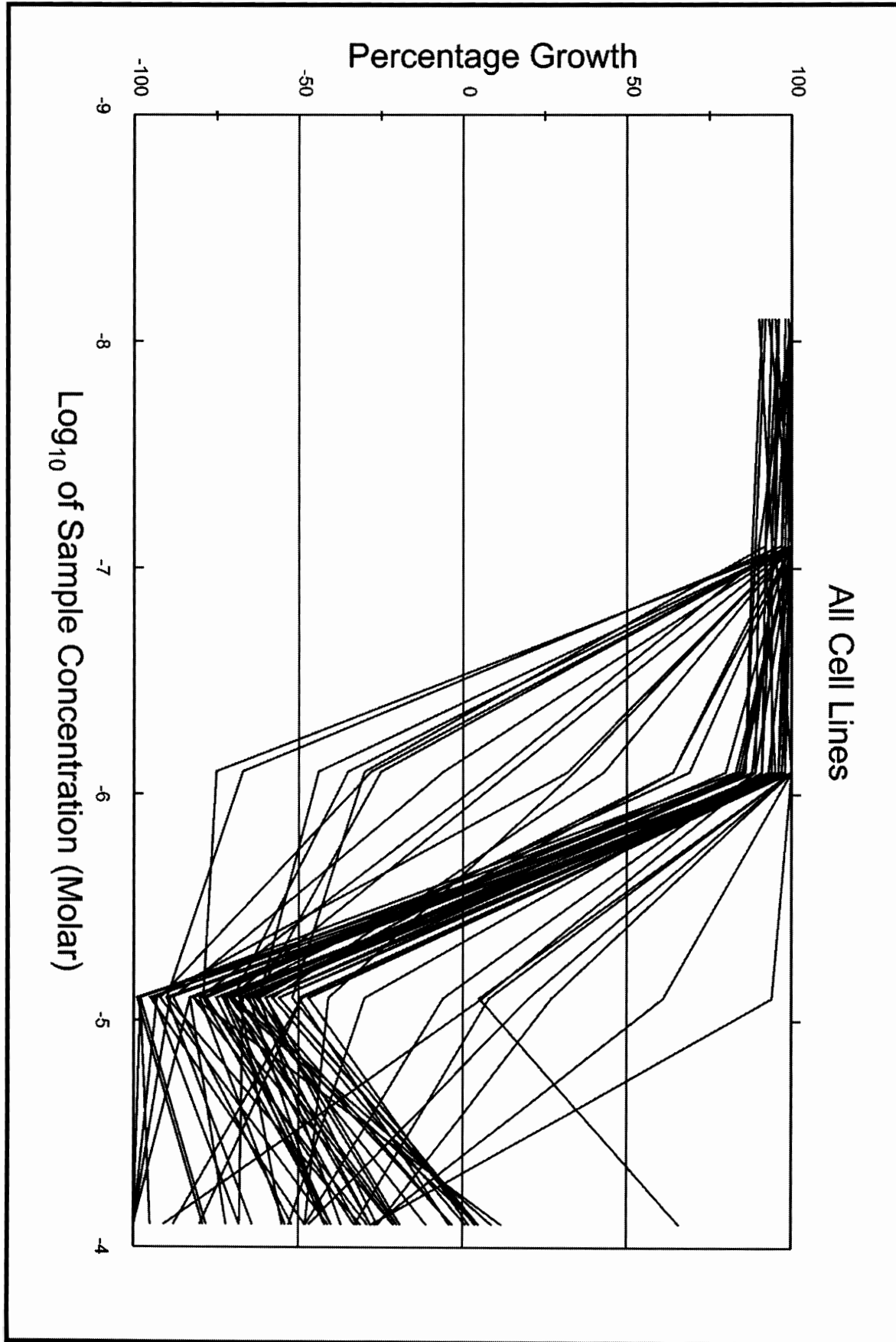




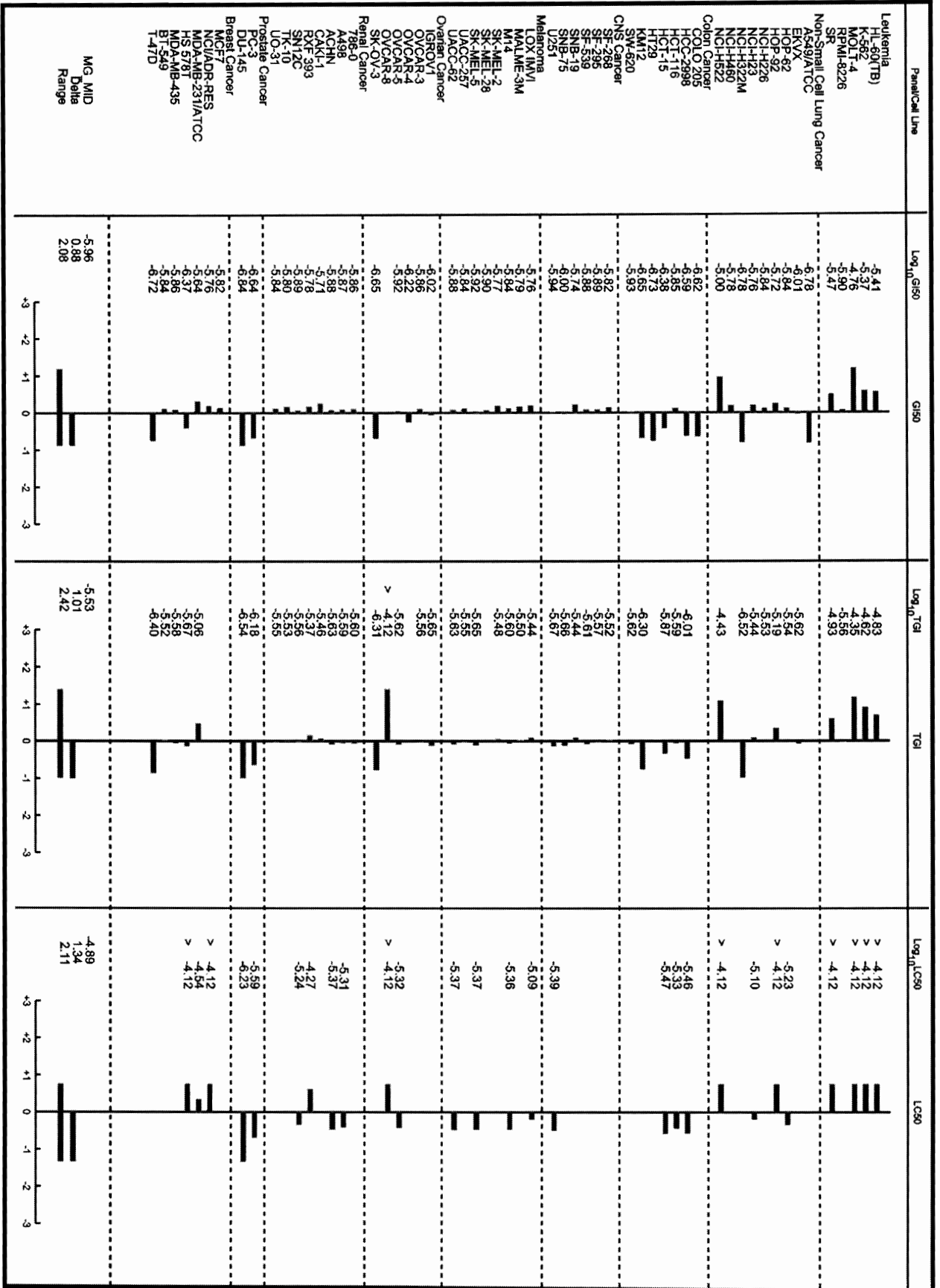


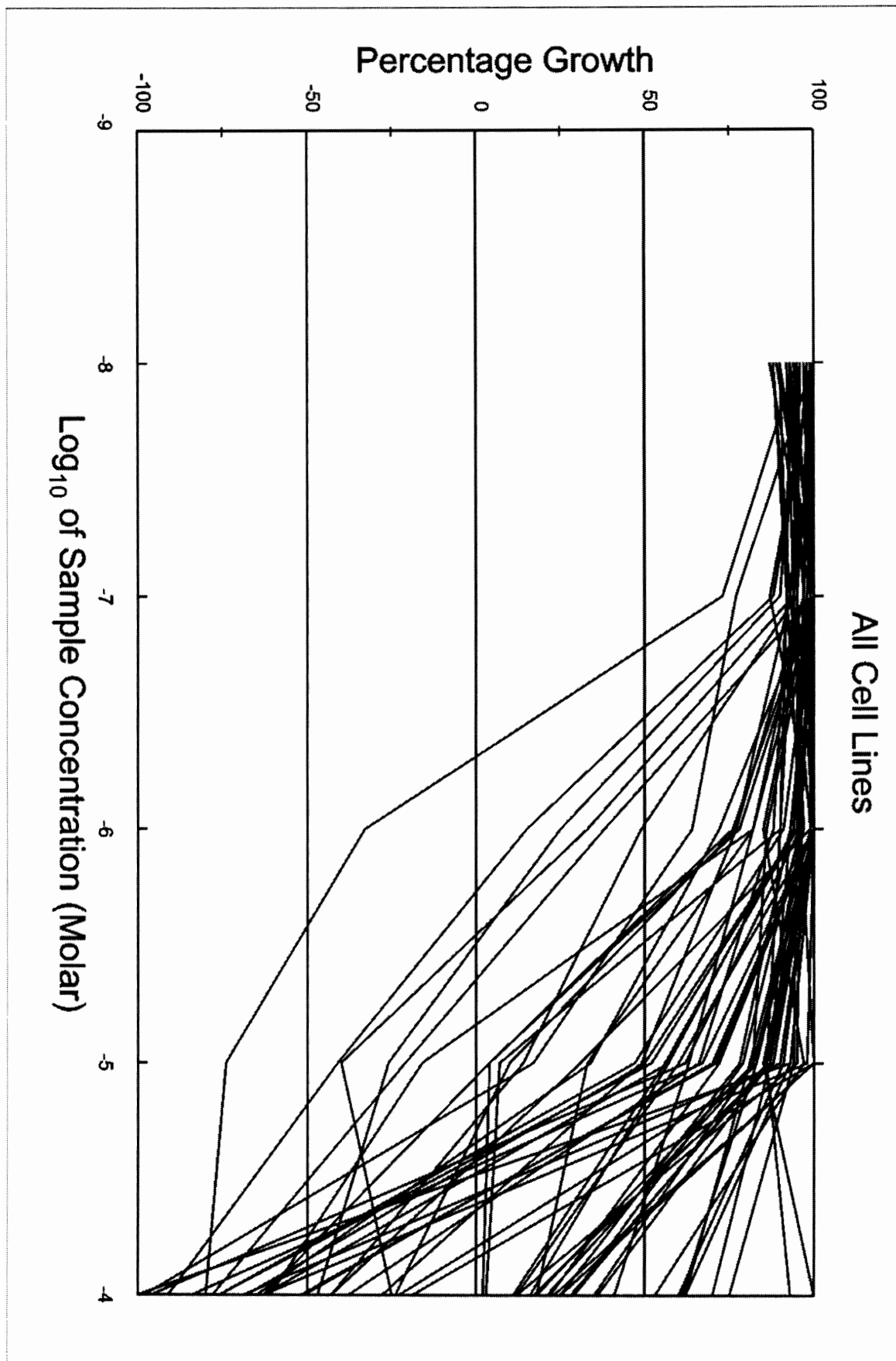
Panel/Cell Line	Time	Ctrl	Mean Optical Densities										GI50	TGI	LC50		
			-8.1	-7.1	-6.1	-5.1	-4.1	-8.1	-7.1	-6.1	-5.1	-4.1					
Leukemia																	
CCRF-CEM	0.299	1.415	1.498	1.405	1.439	0.859	0.348	107	99	102	50	4	7.56E-6	> 7.50E-5	> 7.50E-5		
HL-60(TB)	0.414	2.157	2.309	2.162	1.966	1.744	0.238	100	100	89	76	-43	3.29E-5	> 7.50E-5	> 7.50E-5		
K-562	0.163	1.646	1.628	1.617	1.600	0.772	0.109	99	98	102	41	-33	5.19E-5	> 7.50E-5	> 7.50E-5		
MOLT-4	0.488	2.077	2.157	1.986	2.108	1.707	0.436	105	94	102	77	-11	1.51E-5	> 7.50E-5	> 7.50E-5		
RPML1-8226	0.713	2.224	2.333	2.051	1.425	0.213	0.398	107	89	102	47	-44	6.38E-7	1.89E-6	.		
SR	0.248	0.822	0.819	0.837	0.430	0.117	0.472	100	103	32	-53	39	4.13E-7	.	.		
Non-Small Cell Lung Cancer																	
A549/ATCC	0.449	1.557	1.620	1.638	0.292	0.139	0.310	106	107	-35	-69	-31	1.89E-7	4.29E-7	6.51E-6		
HKVX	0.403	1.148	1.259	1.199	0.811	0.174	0.175	115	107	55	-57	-57	8.26E-7	2.32E-6	3.29E-5		
EOP-62	0.372	1.287	1.299	1.231	1.274	0.278	0.135	101	94	99	-25	-64	1.85E-6	6.86E-6	2.28E-5		
HOP-92	1.035	1.464	1.433	1.459	1.394	1.000	-0.005	93	92	84	-3	-100	1.82E-6	6.96E-6	2.28E-5		
NCI-H226	0.816	1.760	1.860	1.856	1.688	0.375	0.591	111	110	102	-54	-28	3.21E-6	3.21E-6	2.28E-5		
NCI-H223	0.360	1.006	1.006	1.036	1.031	0.018	0.664	105	104	102	47	12	1.48E-6	> 7.50E-5	> 7.50E-5		
NCI-H322M	0.701	1.799	1.759	1.761	0.029	0.086	0.207	105	106	-86	-98	-71	1.31E-7	2.38E-7	4.33E-7		
NCI-H460	0.241	1.845	1.903	1.808	1.838	1.480	0.332	104	98	100	78	6	1.78E-5	> 7.50E-5	> 7.50E-5		
NCI-H522	0.437	0.952	0.962	0.948	1.014	0.891	0.316	102	99	112	49	-28	7.32E-6	3.27E-5	> 7.50E-5		
Colon Cancer																	
COLO 205	0.202	0.821	0.885	0.860	0.480	0.081	0.365	110	106	45	-60	26	6.18E-7	7.32E-7	.		
HCC-2998	0.417	1.348	1.401	1.354	0.413	0.173	0.410	106	101	-1	-59	-2	2.36E-7	7.32E-7	.		
HCT-116	0.185	1.682	1.624	1.536	1.580	0.069	0.222	96	90	93	-63	-2	1.42E-6	1.59E-6	.		
HCT-15	0.223	1.282	1.208	1.293	0.632	0.038	0.120	93	101	39	-83	-46	4.92E-7	1.59E-6	.		
HT29	0.210	1.530	1.497	1.481	0.390	0.053	0.450	98	98	14	-75	18	2.72E-7	.	.		
KM12	0.458	2.087	2.053	2.146	0.135	0.171	0.657	98	104	-71	-63	12	1.52E-7	.	.		
SW-620	0.157	1.036	1.033	0.980	0.783	0.060	-0.077	99	93	71	-82	-100	1.08E-6	2.56E-6	6.08E-6		
CNS Cancer																	
SF-268	0.502	1.748	1.738	1.677	1.670	0.139	0.621	99	94	94	-72	10	1.38E-6	.	.		
SF-295	0.678	2.360	2.351	2.363	2.370	0.283	0.732	99	100	101	-58	3	1.56E-6	2.49E-6	4.76E-6		
SF-539	0.738	1.858	1.807	1.778	1.770	0.112	0.137	95	93	92	-85	-81	1.30E-6	3.33E-6	6.87E-6		
SNB-19	0.421	1.384	1.439	1.412	1.414	0.185	0.108	106	103	103	-58	-74	1.62E-6	2.61E-6	.		
SNB-75	0.590	1.139	1.168	1.131	1.077	0.143	0.579	105	99	89	-75	.	1.29E-6	2.61E-6	.		
U251	0.228	1.172	1.180	1.149	1.119	0.023	0.056	101	98	94	-90	-75	1.31E-6	2.44E-6	4.56E-6		
Melanoma																	
LOX IMVI	0.260	1.833	1.776	1.799	1.718	1.598	0.170	96	98	93	85	-35	1.47E-5	3.85E-5	> 7.50E-5		
MALME-3M	0.667	1.244	1.296	1.351	1.374	0.202	0.675	102	118	122	-70	1	1.39E-6	2.70E-6	.		
M14	0.360	1.188	1.206	1.185	1.163	0.082	0.288	109	101	97	-77	-20	1.97E-6	2.70E-6	.		
SK-MEL-28	0.685	1.994	1.976	2.011	1.969	0.142	0.546	99	101	98	-79	-20	1.40E-6	2.68E-6	4.02E-6		
SK-MEL-6	0.336	1.150	1.144	1.126	0.980	0.007	0.480	99	97	79	-98	-100	1.09E-6	2.10E-6	4.50E-6		
UACC-257	0.618	1.315	1.345	1.338	1.282	0.054	0.264	104	103	95	-91	-57	1.31E-6	2.43E-6	4.50E-6		
UACC-62	0.435	1.899	1.705	1.793	1.725	0.156	0.176	100	107	102	-64	-60	1.54E-6	3.08E-6	6.17E-6		
Ovarian Cancer																	
IGROV1	0.241	0.738	0.724	0.717	0.503	0.083	0.109	97	96	53	-66	-55	7.91E-7	2.09E-6	5.54E-6		
OVCAR-3	0.487	1.266	1.399	1.381	1.232	0.056	0.695	114	112	93	-89	28	1.30E-6	2.09E-6	.		
OVCAR-4	0.382	1.098	1.057	1.082	1.030	0.184	0.488	94	95	91	-49	14	1.47E-6	.	.		
OVCAR-5	0.583	1.863	1.826	1.902	0.424	0.177	0.455	97	103	-27	-70	-22	1.91E-7	4.63E-7	> 7.50E-5		
OVCAR-8	0.532	1.798	1.827	1.865	1.894	0.422	0.617	102	108	108	-24	3	2.06E-6	1.38E-6	> 7.50E-5		
SK-OV-3	0.573	1.046	1.101	1.091	0.888	0.177	-0.018	112	109	24	-69	-100	3.74E-7	1.38E-6	4.67E-6		
Renal Cancer																	
786-O	0.590	2.208	2.184	2.186	2.147	0.319	0.539	98	99	96	45	-7	1.59E-6	3.60E-6	> 7.50E-5		
A498	0.482	0.997	0.981	0.958	0.960	0.077	0.001	97	93	93	-83	-100	1.31E-6	2.53E-6	4.85E-6		
ACHN	0.367	1.326	1.286	1.290	1.277	0.006	0.051	97	86	93	-98	-86	1.28E-6	2.53E-6	4.85E-6		
CAKI-1	0.571	1.098	1.132	1.137	1.138	0.144	0.484	106	107	108	-75	-32	1.58E-6	2.92E-6	4.21E-6		
RX-F 393	0.508	0.751	0.747	0.785	0.785	0.284	0.234	98	114	114	-44	-34	1.90E-6	3.94E-6	2.99E-5		
SN12C	0.537	1.707	1.577	1.638	1.532	0.997	0.336	89	94	85	39	-39	4.37E-6	2.37E-5	> 7.50E-5		
TK-10	0.571	1.169	1.214	1.221	1.224	0.119	0.305	107	109	109	-79	-47	1.54E-6	2.85E-6	.		
UO-31	0.302	1.003	1.046	1.048	1.014	0.133	0.257	106	106	102	-56	-15	1.59E-6	3.30E-6	.		
Prostate Cancer																	
PC-3	0.622	1.982	2.034	1.939	0.783	0.045	-0.078	104	97	12	-93	-100	2.67E-7	9.73E-7	2.93E-6		
DU-146	0.170	0.686	0.651	0.598	0.055	0.025	0.513	93	83	-68	-86	-34	1.24E-7	2.66E-7	.		
Breast Cancer																	
MCF7	0.226	0.993	1.080	1.036	0.871	0.063	0.377	111	108	94	-72	20	1.24E-6	> 7.50E-5	> 7.50E-5		
NCI/ADR-RES	0.510	1.563	1.645	1.646	1.674	0.782	0.538	108	106	111	24	2	3.75E-6	> 7.50E-5	> 7.50E-5		
MDA-MB-231/ATCC	0.315	1.190	1.149	1.165	1.078	0.881	0.224	94	95	83	54	-57	8.19E-6	2.32E-5	6.93E-5		
HS 578T	0.432	0.776	0.737	0.736	0.320	0.180	0.360	103	88	-26	-58	-86	1.82E-6	4.44E-6	4.14E-6		
MDA-MB-435	0.435	1.594	1.623	1.637	1.528	0.044	0.353	103	105	95	-90	-19	1.31E-6	2.49E-6	4.14E-6		
BT-549	0.405	0.989	1.188	0.921	0.911	0.578	0.031	134	88	87	30	-92	3.30E-6	1.31E-5	3.37E-5		

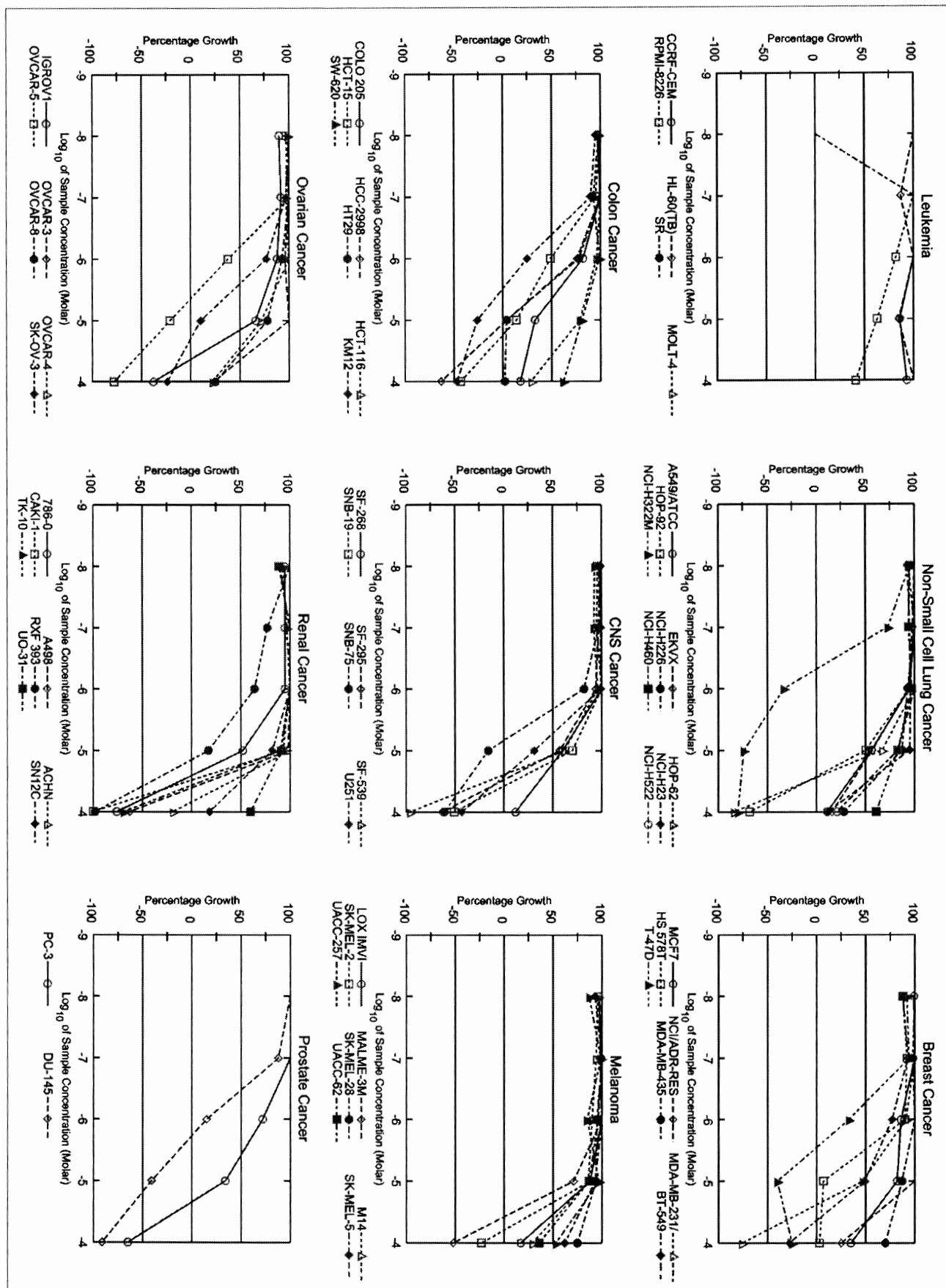


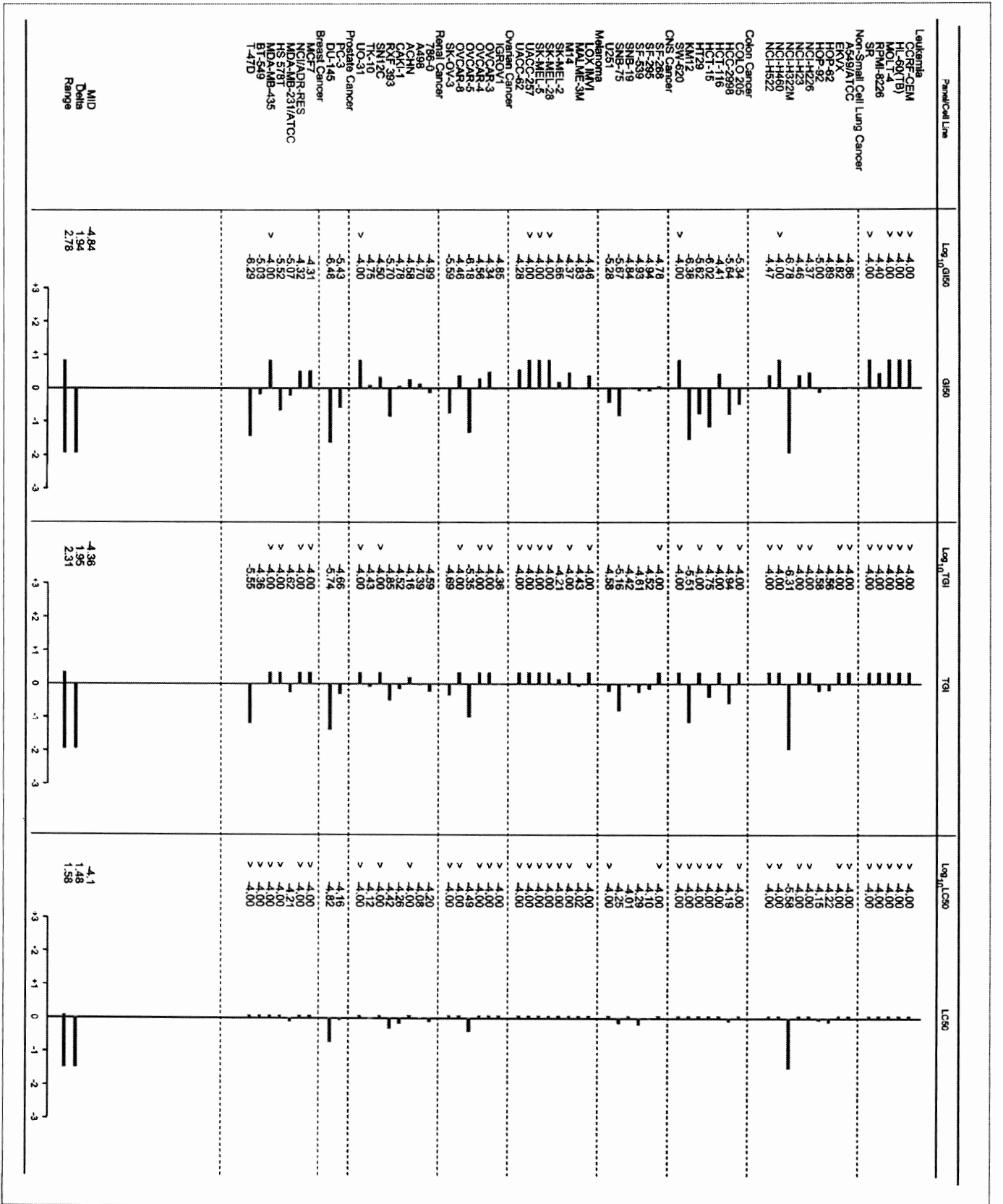


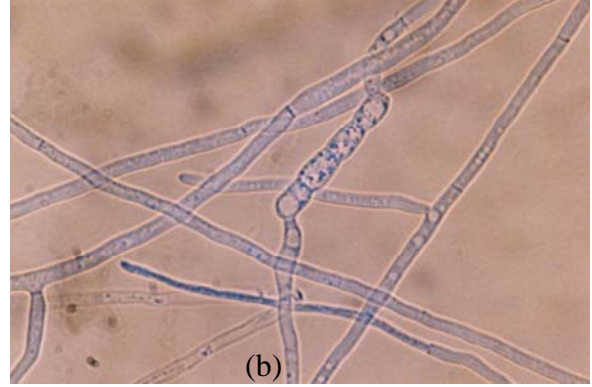
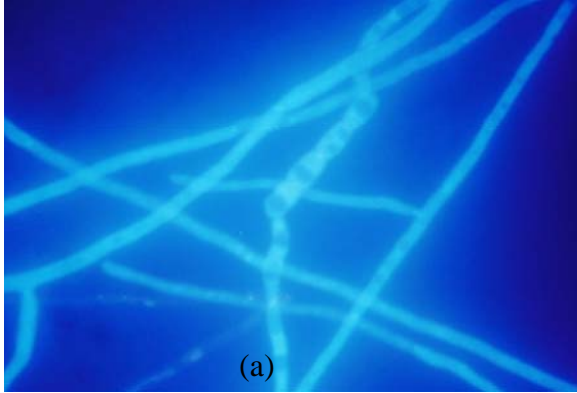
Parent/Cell Line	Time	Log10 Concentration										Percent Growth	GI50	TGI	LC50	
		Zero	-8.1	-7.1	-6.1	-5.1	-4.1	-3.1	-2.1	-1.1	0					
Leukemia																
HL-60(TB)	0.495	1.317	1.459	1.491	1.548	0.656	0.261	117	121	128	20	-47	3.92E-6	1.47E-5	> 7.50E-5	
K-562	0.612	2.050	2.217	2.341	2.373	0.995	0.454	112	120	122	27	-26	4.28E-6	2.41E-5	> 7.50E-5	
MOLT-4	0.355	1.309	1.464	1.533	1.575	1.255	0.254	116	123	122	94	-28	1.73E-5	4.42E-5	> 7.50E-5	
RPW1-8226	0.889	2.328	2.841	2.798	2.091	0.320	0.639	136	133	84	-64	-28	3.27E-6	2.76E-6	> 7.50E-5	
SR	0.315	1.230	1.335	1.513	1.517	0.388	0.213	111	131	131	8	-33	1.42E-6	1.18E-5	> 7.50E-5	
Non-Small Cell Lung Cancer																
A549/ATCC	0.311	1.725	1.721	1.615	0.217	0.148	0.382	100	92	-30	-52	5	1.86E-7	2.42E-6	.	
EAHYX	0.469	1.358	1.369	1.338	1.036	0.181	0.295	101	98	64	-82	-37	9.67E-7	2.42E-6	.	
HOP-62	0.185	0.553	0.554	0.567	0.541	0.059	0.084	100	104	97	-68	-55	1.44E-6	2.89E-6	.	
HOP-92	0.918	1.316	1.324	1.275	1.272	0.864	0.102	102	90	89	-6	-48	1.93E-6	6.49E-6	> 7.50E-5	
NCI-H226	0.473	1.083	1.057	1.037	1.053	0.165	0.274	96	92	95	-65	-42	1.43E-6	2.94E-6	.	
NCI-H23	0.491	1.391	1.468	1.520	1.461	0.250	0.098	109	114	108	-49	-80	1.75E-6	3.64E-6	.	
NCH-H322M	0.554	1.333	1.332	1.484	0.137	0.115	0.334	100	117	-75	-79	-40	1.67E-7	3.04E-7	.	
NCH-H460	0.236	1.896	1.968	2.072	1.988	0.105	0.304	105	111	106	-56	4	1.67E-6	3.04E-7	.	
NCH-H822	0.854	2.087	2.178	2.279	2.253	1.606	0.621	107	116	114	61	-27	1.00E-5	3.68E-5	> 7.50E-5	
Colon Cancer																
COLO 205	0.211	0.919	0.981	0.930	0.214	0.082	0.247	109	102	102	-71	5	2.43E-7	2.42E-6	.	
HCC-2988	0.549	1.615	1.666	1.565	0.656	0.112	0.252	105	95	10	-80	-54	2.55E-7	3.04E-6	.	
HCT-116	0.124	1.095	1.171	1.157	1.128	0.014	-0.026	108	106	104	-89	-100	1.42E-6	2.59E-6	.	
HCT-15	0.223	1.512	1.510	1.528	0.640	0.015	-0.019	100	101	32	-93	-93	4.18E-7	1.36E-6	.	
HIT29	0.168	1.123	1.186	1.181	0.109	0.051	0.255	107	106	-35	-70	9	1.87E-7	5.03E-7	.	
KM12	0.388	1.475	1.584	1.679	0.291	0.144	0.376	110	119	89	-63	-33	2.28E-7	2.42E-6	.	
SW-620	0.094	0.655	0.674	0.649	0.545	0.021	0.063	103	99	80	-78	-33	1.17E-6	2.42E-6	.	
CNS Cancer																
SF-268	0.364	1.169	1.238	1.285	1.192	0.125	0.354	109	112	102	-66	-3	1.52E-6	3.04E-6	.	
SF-295	0.478	1.311	1.277	1.271	1.209	0.144	0.324	96	96	88	-70	-31	1.30E-6	2.70E-6	.	
SF-539	0.385	1.324	1.366	1.301	1.289	0.037	0.264	105	98	96	-90	-4	1.33E-6	2.48E-6	.	
SNB-19	0.725	1.093	1.153	1.142	0.979	0.248	0.479	103	111	112	-50	-21	1.80E-6	3.68E-6	.	
SNB-75	0.247	1.261	1.284	1.288	1.098	0.151	0.575	116	113	69	-79	-78	1.01E-6	2.19E-6	.	
U251	0.620	2.257	2.300	2.214	2.222	0.010	0.055	100	104	83	-98	-78	1.14E-6	2.19E-6	.	
Melanoma																
LOX IMVI	0.193	1.301	1.329	1.384	1.356	0.099	0.024	103	106	106	-49	-89	1.72E-6	3.63E-6	8.10E-6	
MALME-3M	0.484	0.804	0.853	0.861	0.827	0.166	0.432	115	118	107	-66	-11	1.81E-6	3.13E-6	.	
M14	0.350	1.086	1.113	1.238	1.157	0.004	0.075	102	110	108	-89	-79	1.43E-6	4.35E-6	.	
SK-MEL-2	0.662	1.243	1.297	1.300	1.297	0.268	0.538	109	110	109	-80	-12	1.68E-6	3.33E-6	.	
SK-MEL-28	0.254	0.737	0.771	0.764	0.685	0.046	0.310	107	106	89	-82	-12	1.27E-6	2.28E-6	4.29E-6	
SK-MEL-5	0.234	1.432	1.321	1.293	1.267	0.015	0.076	91	88	86	-94	-88	1.19E-6	2.28E-6	4.29E-6	
UACC-257	1.047	2.222	2.204	2.240	2.200	0.286	0.827	99	102	98	-73	-21	1.44E-6	2.62E-6	.	
UACC-62	0.620	2.257	2.300	2.214	2.222	0.010	-0.062	103	97	98	-98	-100	1.31E-6	2.36E-6	4.25E-6	
Ovarian Cancer																
IGROV1	0.818	1.969	2.099	2.082	1.558	0.230	0.493	111	110	64	-72	-40	9.55E-7	2.22E-6	.	
OVCA9-3	0.406	0.761	0.784	0.809	0.738	0.120	0.327	106	113	93	-71	-20	1.38E-6	2.79E-6	.	
OVCA9-4	0.443	1.041	1.066	1.117	0.701	0.186	0.447	104	113	43	-58	1	5.98E-7	2.40E-6	4.77E-6	
OVCA9-5	0.366	0.854	0.867	0.966	0.781	0.062	0.102	109	123	85	-83	-72	1.21E-6	2.40E-6	4.77E-6	
OVCA9-8	0.099	0.591	0.531	0.482	0.521	0.386	0.107	107	95	105	5	66	2.23E-7	> 7.50E-5	.	
SK-OV-3	0.651	1.411	1.479	1.585	0.468	0.050	0.386	109	120	-28	-92	-41	2.23E-7	4.88E-7	> 7.50E-5	
Renal Cancer																
785-D	0.322	1.332	1.368	1.406	1.361	0.017	0.186	103	107	103	-95	-48	1.39E-6	2.48E-6	4.89E-6	
A498	1.109	1.751	1.750	1.741	1.729	0.166	-0.052	100	99	96	-83	-100	1.36E-6	2.57E-6	4.89E-6	
ACHN	0.204	0.852	0.845	0.894	0.857	0.005	0.071	99	107	98	-86	-85	1.32E-6	2.37E-6	4.27E-6	
CAMA-1	0.399	0.495	0.505	0.554	0.529	0.126	0.288	110	161	135	-68	-28	1.97E-6	3.46E-6	.	
RFC-393	0.768	1.388	1.353	1.337	1.335	0.540	0.369	94	92	91	-30	-53	1.65E-6	4.28E-6	5.42E-5	
SN12C	0.613	2.728	2.567	2.486	2.433	0.203	0.199	92	89	86	-67	-88	2.74E-6	2.74E-6	5.82E-6	
TK-10	0.656	1.303	1.258	1.413	1.370	0.196	0.393	93	117	110	-75	-40	1.29E-6	2.96E-6	.	
UC-31	0.525	1.515	1.551	1.589	1.513	0.144	0.306	104	104	100	-73	-42	1.46E-6	2.84E-6	.	
Prostate Cancer																
PC-3	0.356	1.055	1.061	1.068	0.336	0.043	0.171	101	102	-6	-88	-52	2.28E-7	6.65E-7	2.59E-6	
DU-145	0.220	0.909	0.894	0.886	0.072	0.022	0.079	98	97	-67	-90	-64	1.44E-7	2.92E-7	5.88E-7	
Breast Cancer																
MCF7	0.287	1.702	1.841	1.777	1.683	0.127	0.365	110	105	97	-56	5	1.53E-6	.	> 7.50E-5	
MDA-MDR-RES	0.406	1.399	1.527	1.430	1.454	0.217	0.427	113	103	106	-47	2	1.74E-6	8.70E-6	> 7.50E-5	
MDA-MB-231(ATCC)	0.377	1.096	1.067	1.051	1.034	0.422	0.035	96	94	91	6	-48	2.30E-6	2.88E-5	> 7.50E-5	
HS 578T	0.426	0.884	0.882	0.883	0.582	0.221	0.221	95	100	94	-41	-48	1.47E-7	2.13E-6	> 7.50E-5	
MDA-MB-435	0.475	1.553	1.623	1.638	1.514	0.287	0.338	108	108	94	-82	-29	2.61E-6	3.08E-6	.	
BT-549	0.377	0.810	0.765	0.783	0.782	0.151	0.281	90	94	94	-80	-26	1.44E-6	3.08E-6	.	
T-47D	0.627	1.303	1.334	1.400	0.348	0.238	0.500	105	114	-44	-82	-20	1.91E-7	3.94E-7	.	



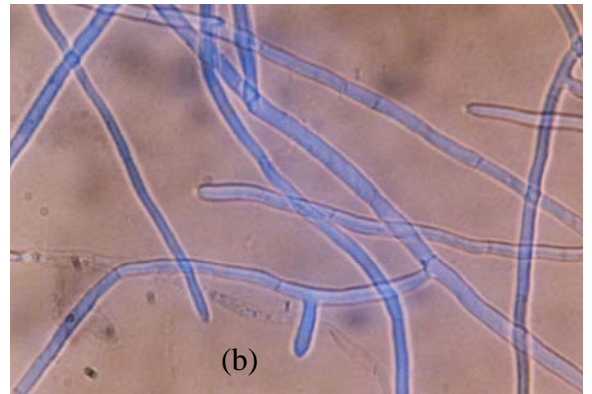
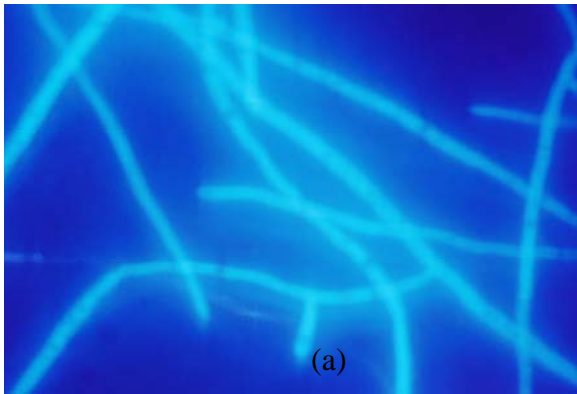




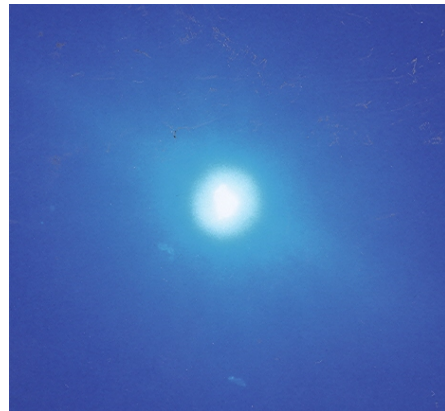




Mycelia of *F. solani* after exposure with coumarine (a) under fluorescence microscope (b) under light microscope

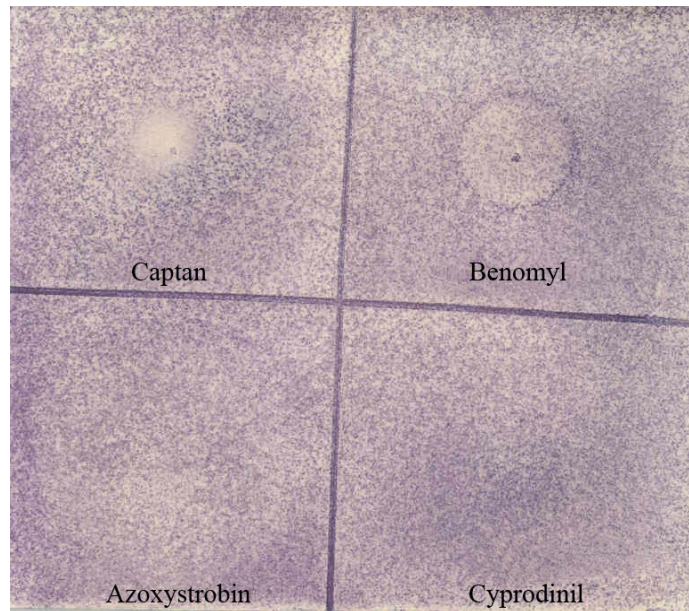
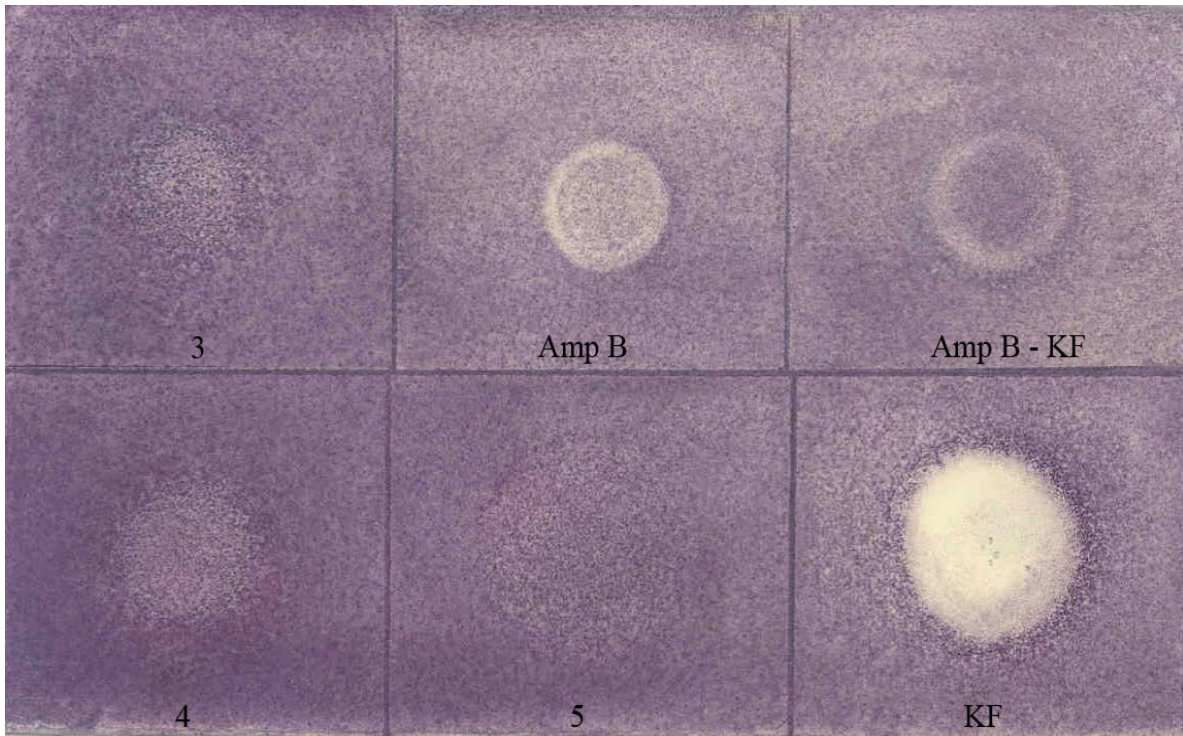


Mycelia of *F. oxysporium* after exposure with coumarine (a). under fluorescence microscope (b) under light microscope



Mycelia untreated with fluorescence compound under fluorescence microscope: no autofluorescence has been observed

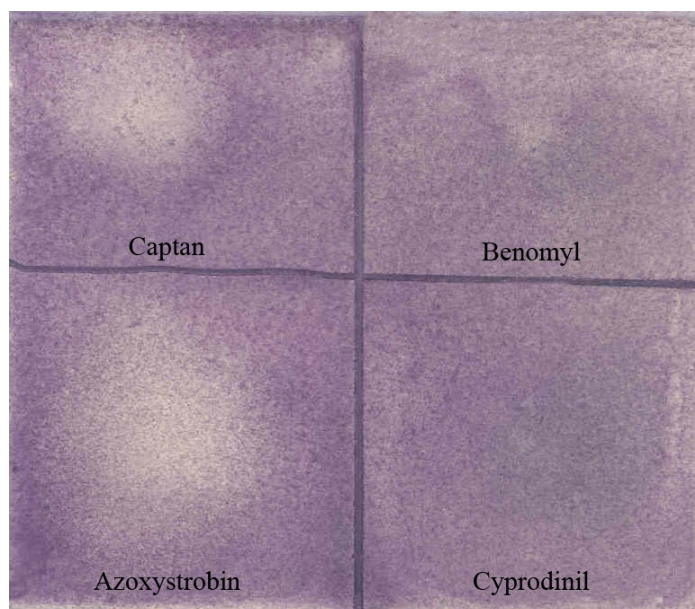
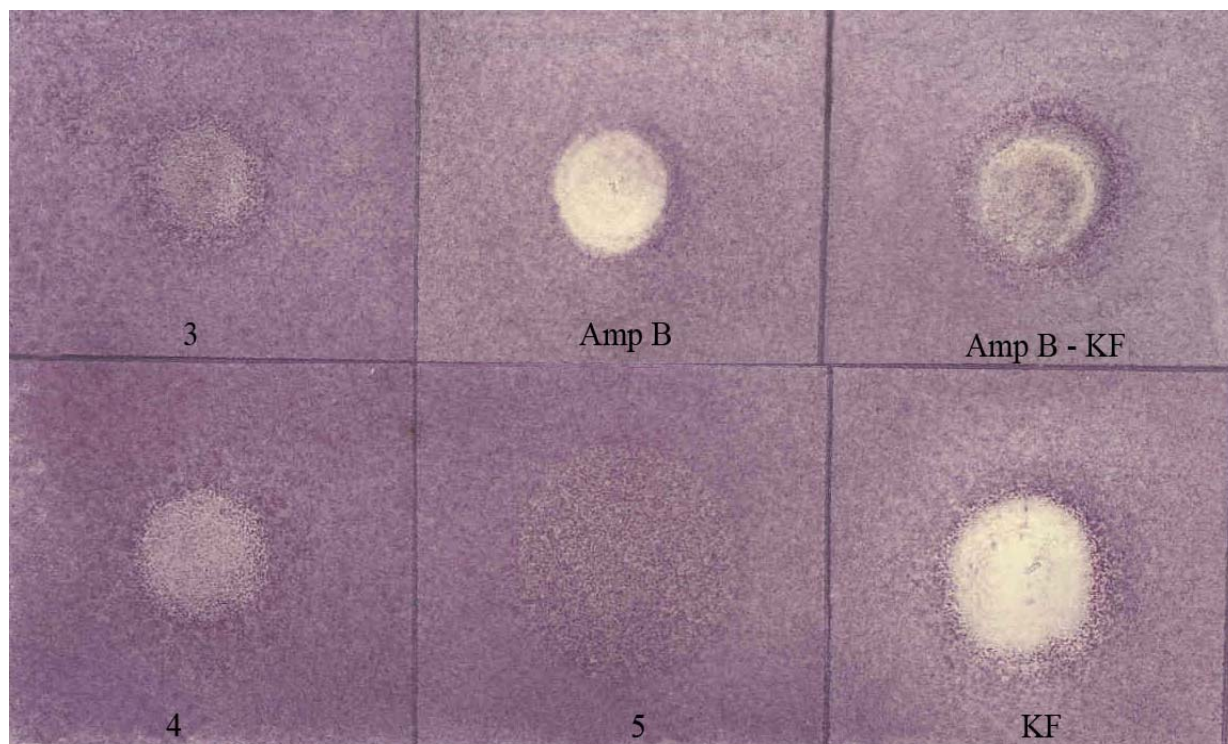
KF-coumarine under fluorescence microscope



Bioautography plate of **3**, **4** and **5** against *Fusarium solani* after spraying with MTT.

Standards: Amp B: amphotericin B, AmpB-KF: Amphotericin B plus KF (1:1), Captan, Benomyl, Azoxystrobin and Cyprodinil.

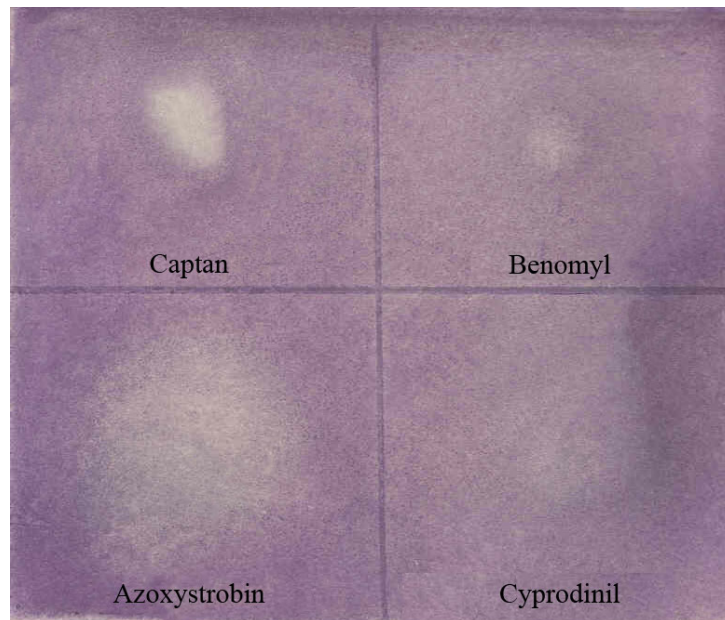
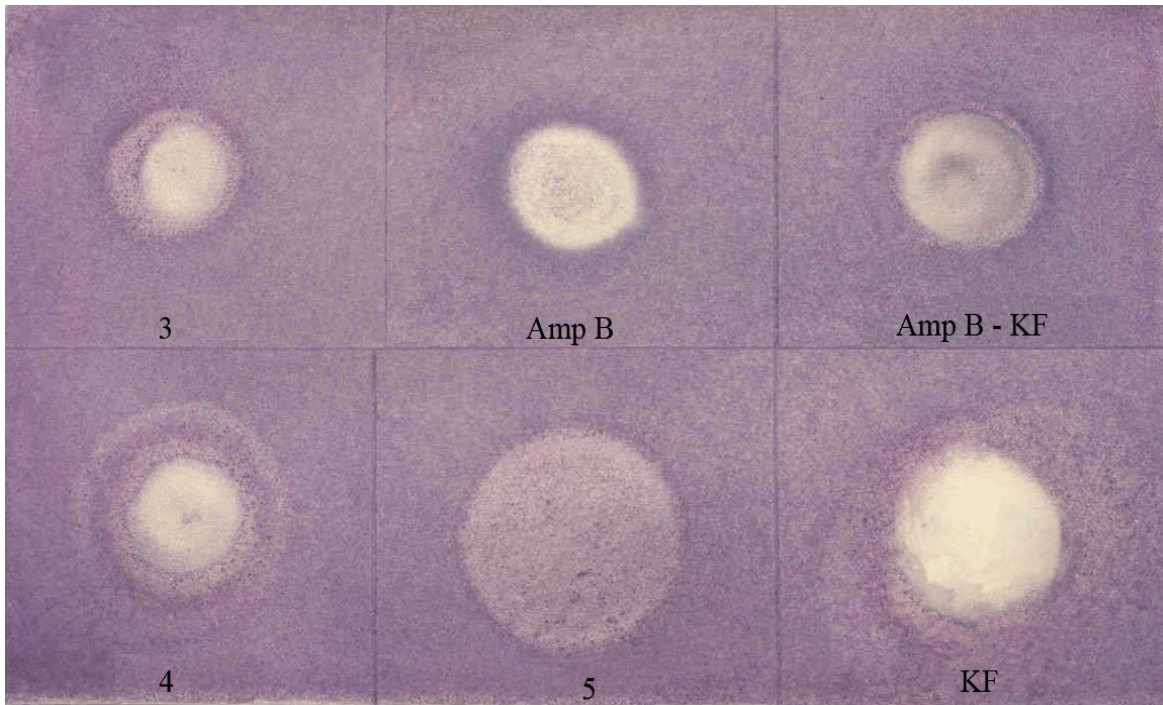
Control : KF: kahalalide F.



Bioautography plate of **3**, **4** and **5** against *Fusarium oxysporium* after spraying with MTT.

Standards: Amp B: amphotericin B, AmpB-KF: Amphotericin B plus KF (1:1), Captan, Benomyl, Azoxystrobin and Cyprodinil.

Control : KF: kahalalide F.



Bioautography plate of **3**, **4** and **5** against *Fusarium proliferatum* after spraying with MTT.

Standards: Amp B: amphotericin B, AmpB-KF: Amphotericin B plus KF (1:1), Captan, Benomyl, Azoxystrobin and Cyprodinil.

Control : KF: kahalalide F.