

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

## Supporting Information

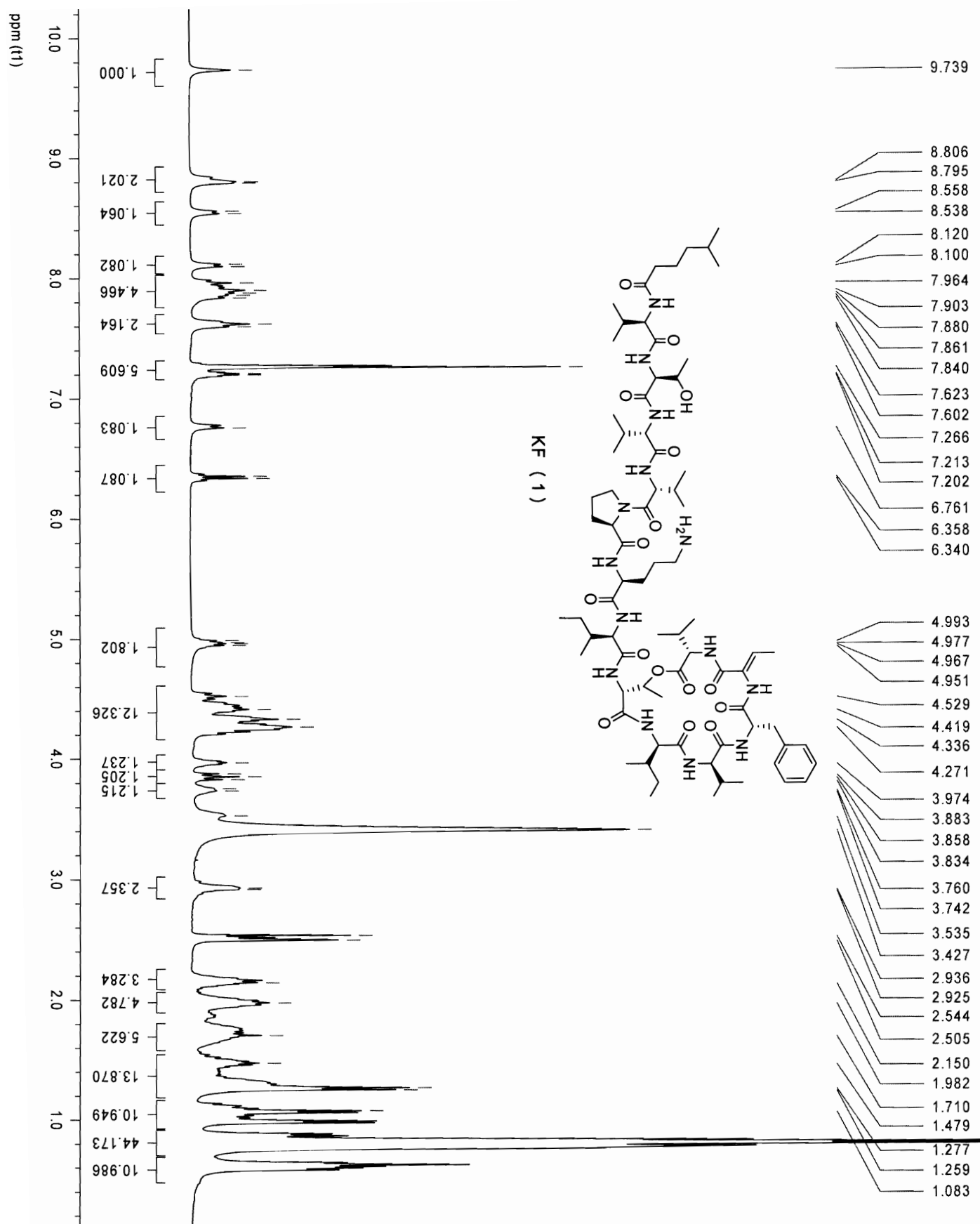
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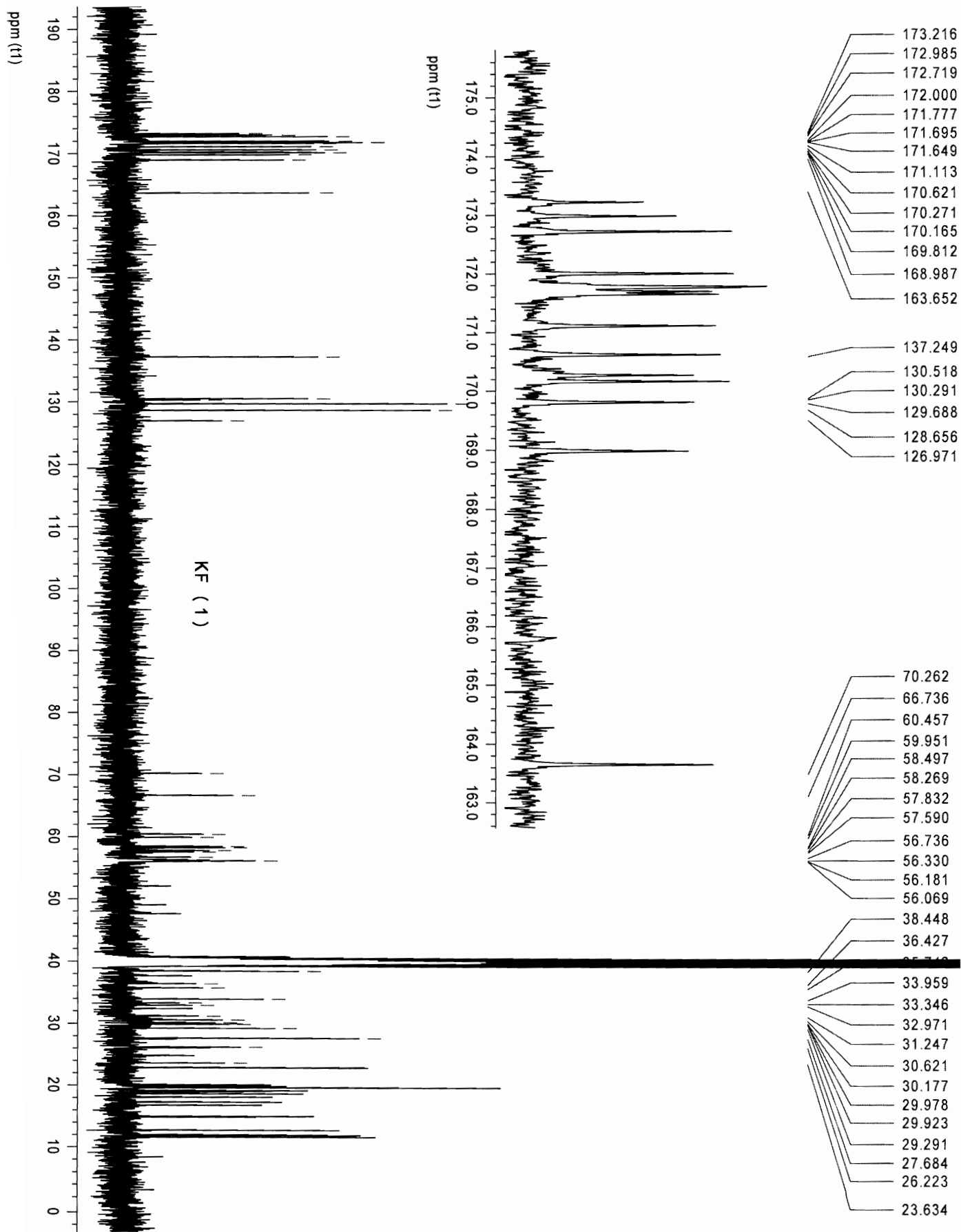
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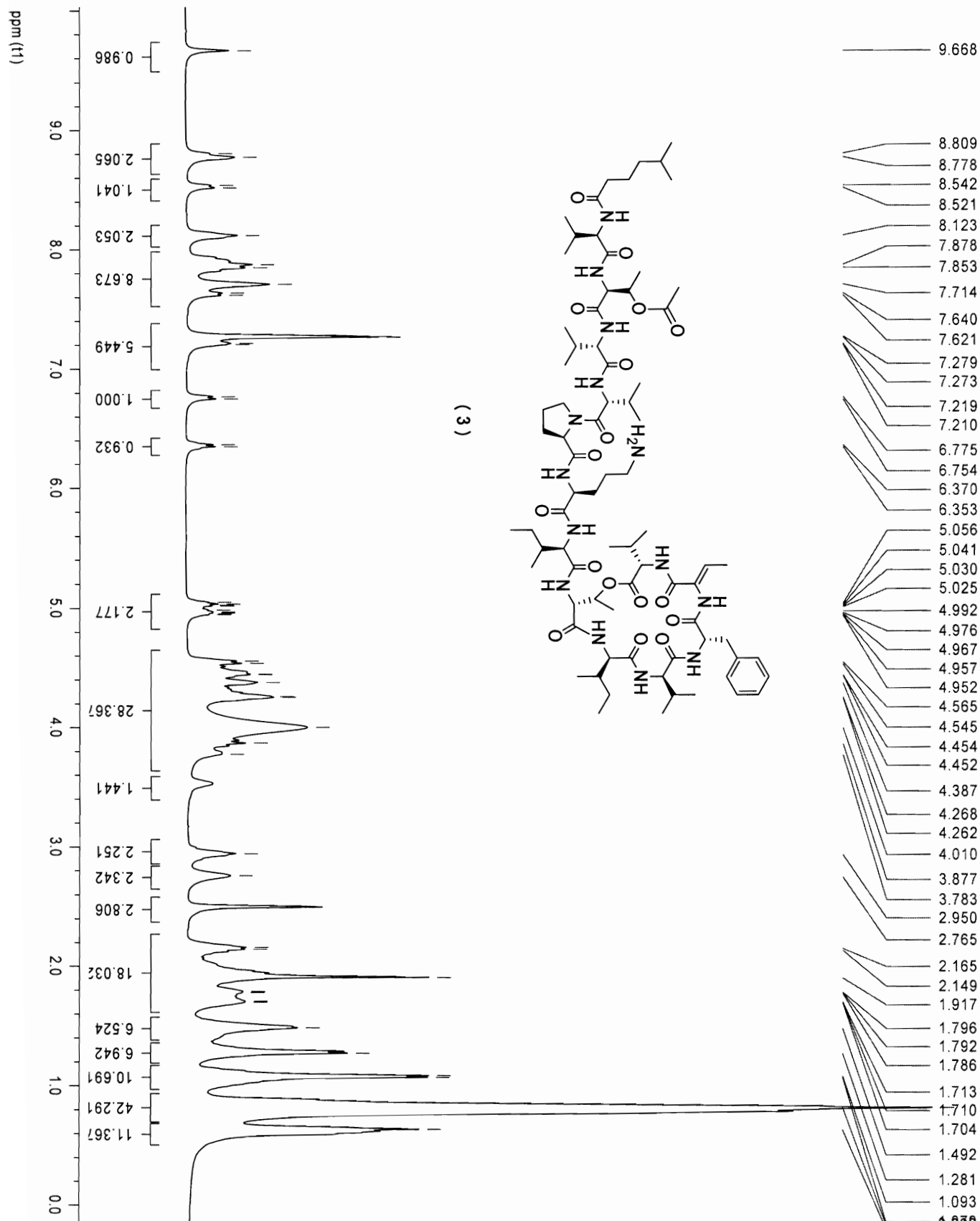
<sup>2</sup>*ARS, Natural Product Utilization Research Unit, National Center for Natural Products Research, University of Mississippi, University, MS 38677*

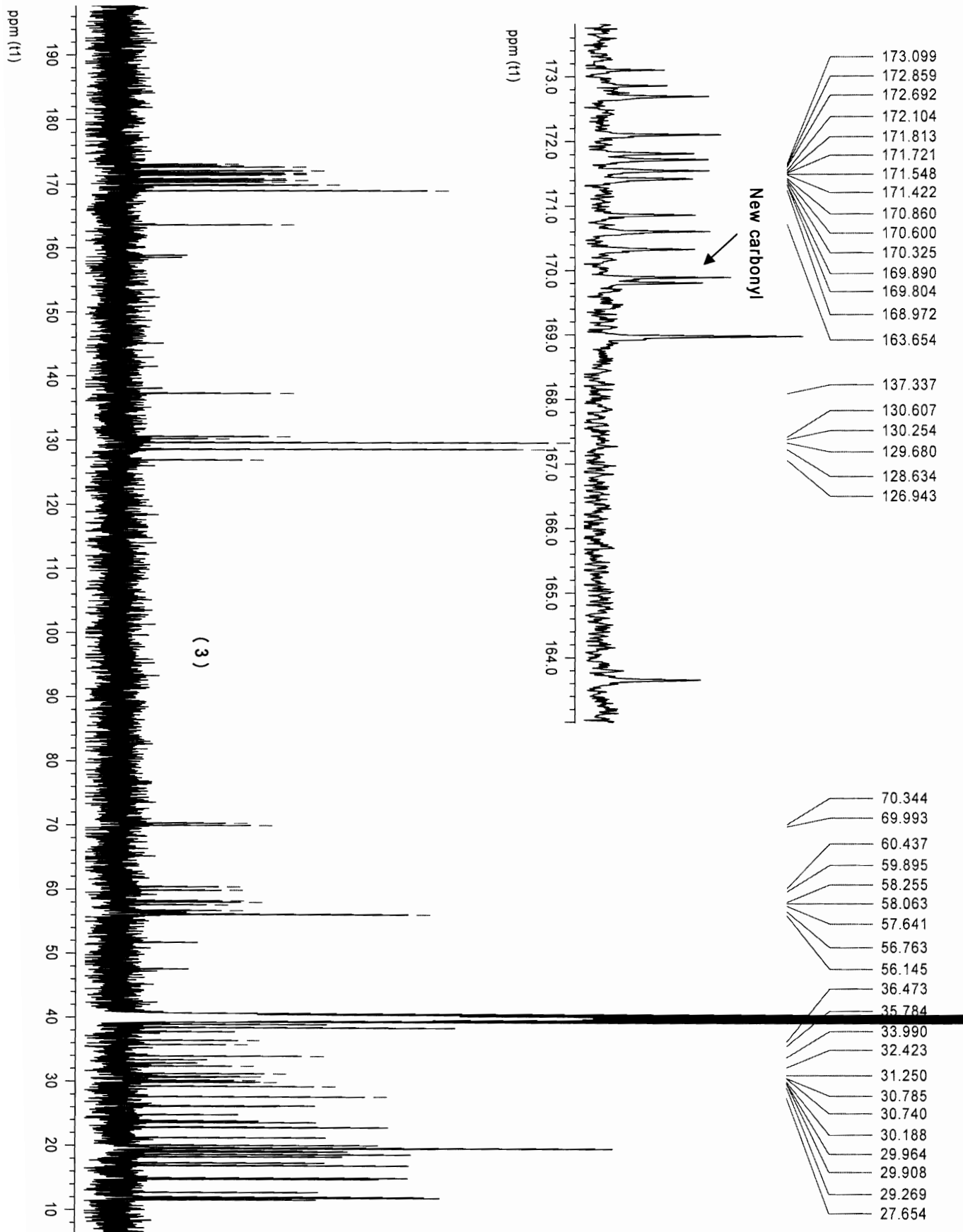
### Table of Contents

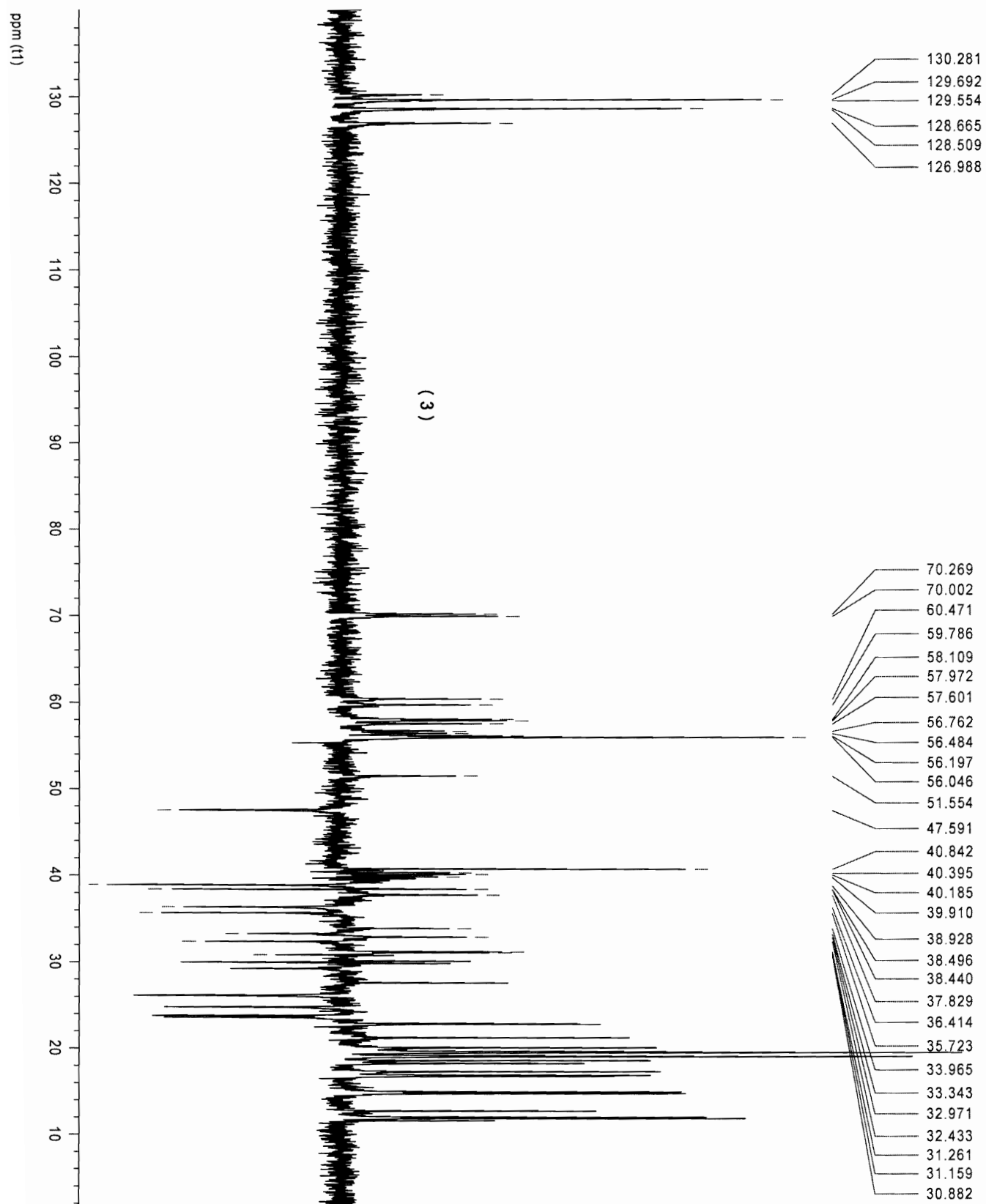
<sup>1</sup> H NMR and <sup>13</sup> C NMR spectra of KF ( <b>1</b> ) in DMSO- <i>d</i> <sub>6</sub> at room temperature at 10 mg/180 μL.	S2-S3
<sup>1</sup> H NMR, <sup>13</sup> C NMR and DEPT 135° spectra of compound <b>3</b> in DMSO- <i>d</i> <sub>6</sub> at room temperature at 10 mg/180 μL.	S4-S6
<sup>1</sup> H NMR and DEPT 135° spectra of KF-analogs <b>4</b> , <b>5</b> , <b>7</b> , <b>8</b> , <b>10</b> , <b>11</b> and <b>16</b> in DMSO- <i>d</i> <sub>6</sub> at room temperature at 10 mg/180 μL.	S7-S20
Activity data (Molar) of 60 NCI cell lines for 4-Fluoro-benzylamino-KF ( <b>5</b> )	S21-S24
Activity data (Molar) of 60 NCI cell lines for 4-Pyridinyl-methylamino-KF ( <b>7</b> )	S25-S28
Activity data (Molar) of 60 NCI cell lines for 2-Thienyl-methylamino-KF ( <b>8</b> )	S29-S32
Activity data (Molar) of 60 NCI cell lines for DEAC-KF-amide ( <b>16</b> )	S33-S36
Fluorescence images	S37
Bioautograms	S38-S40

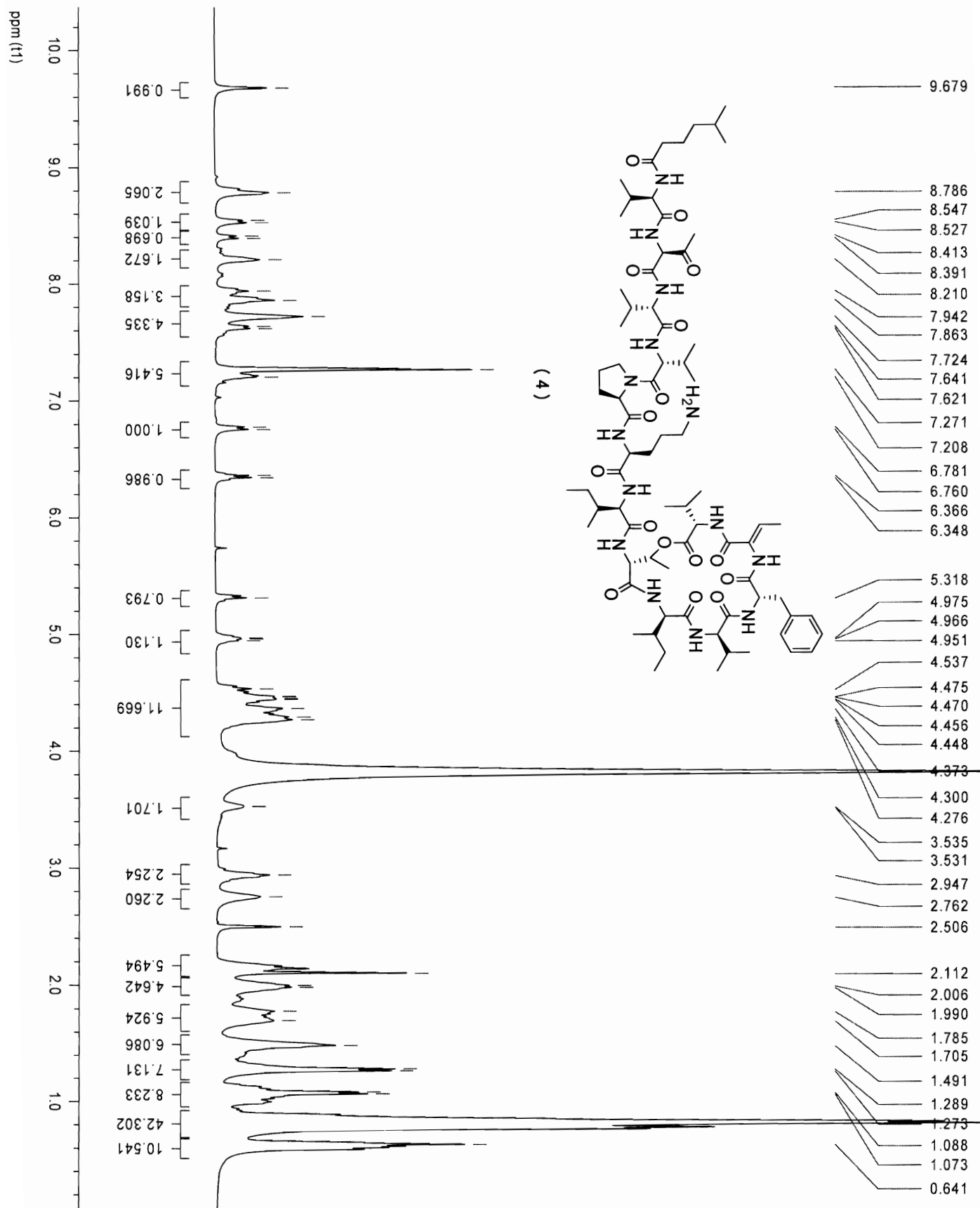


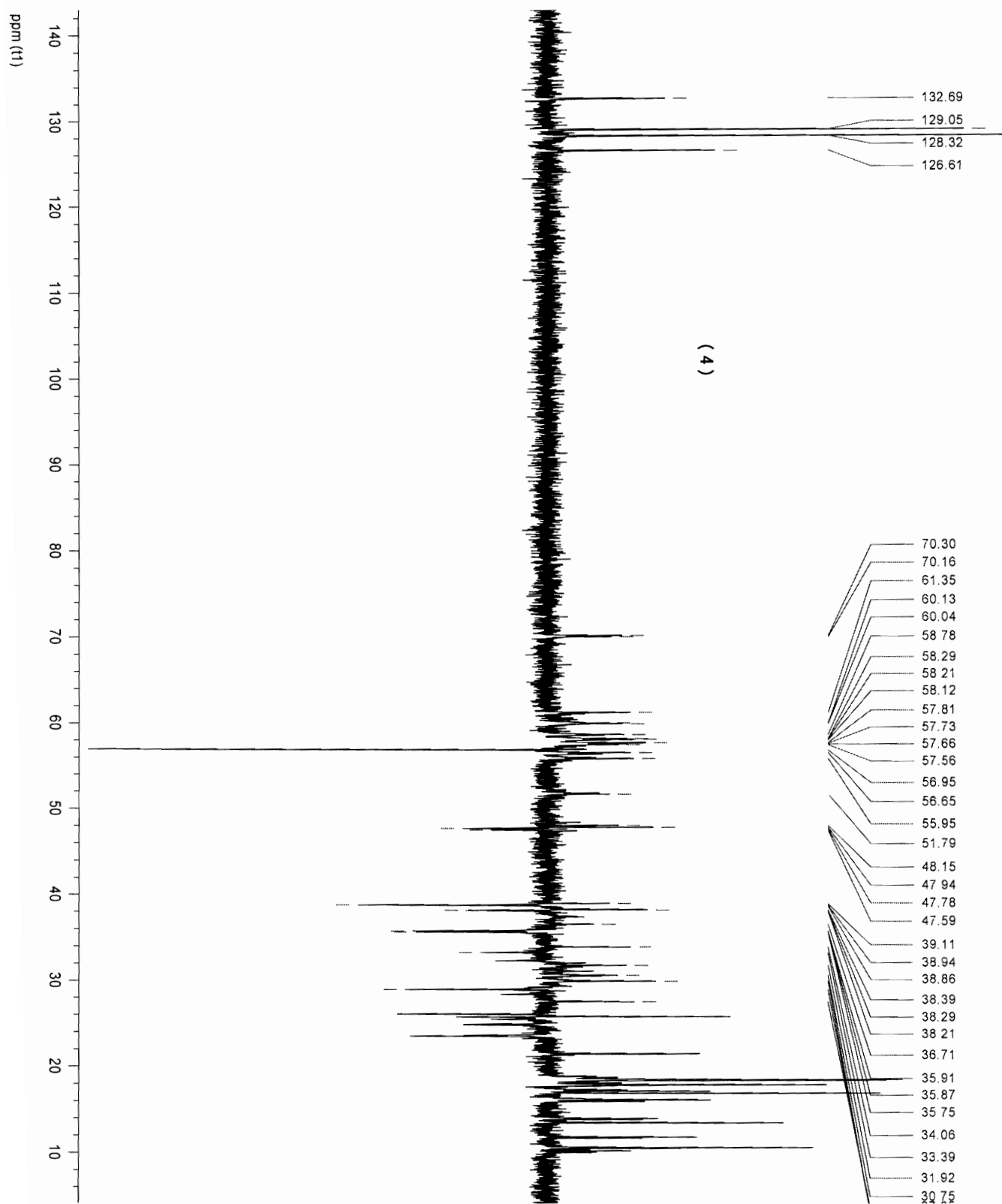






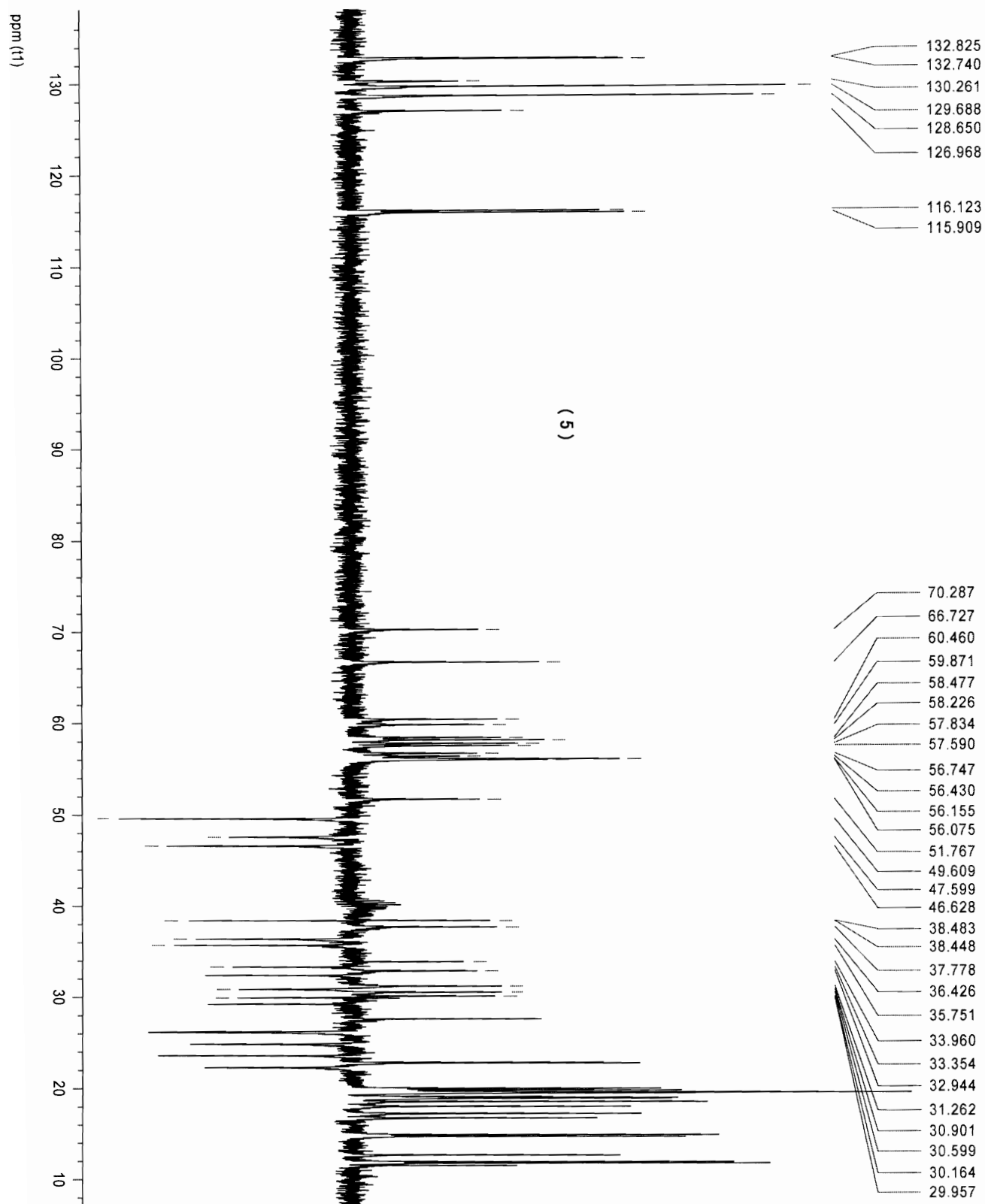




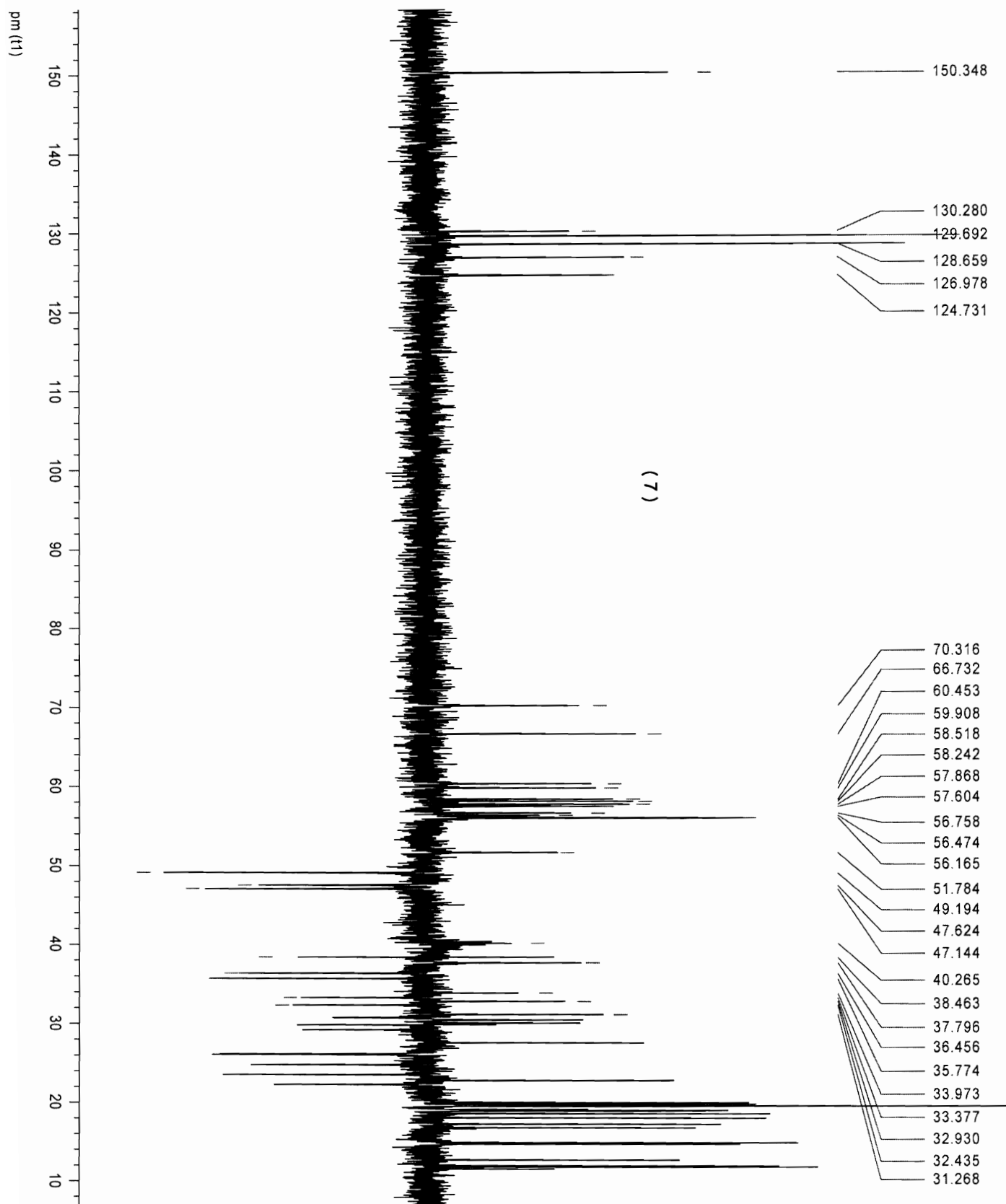




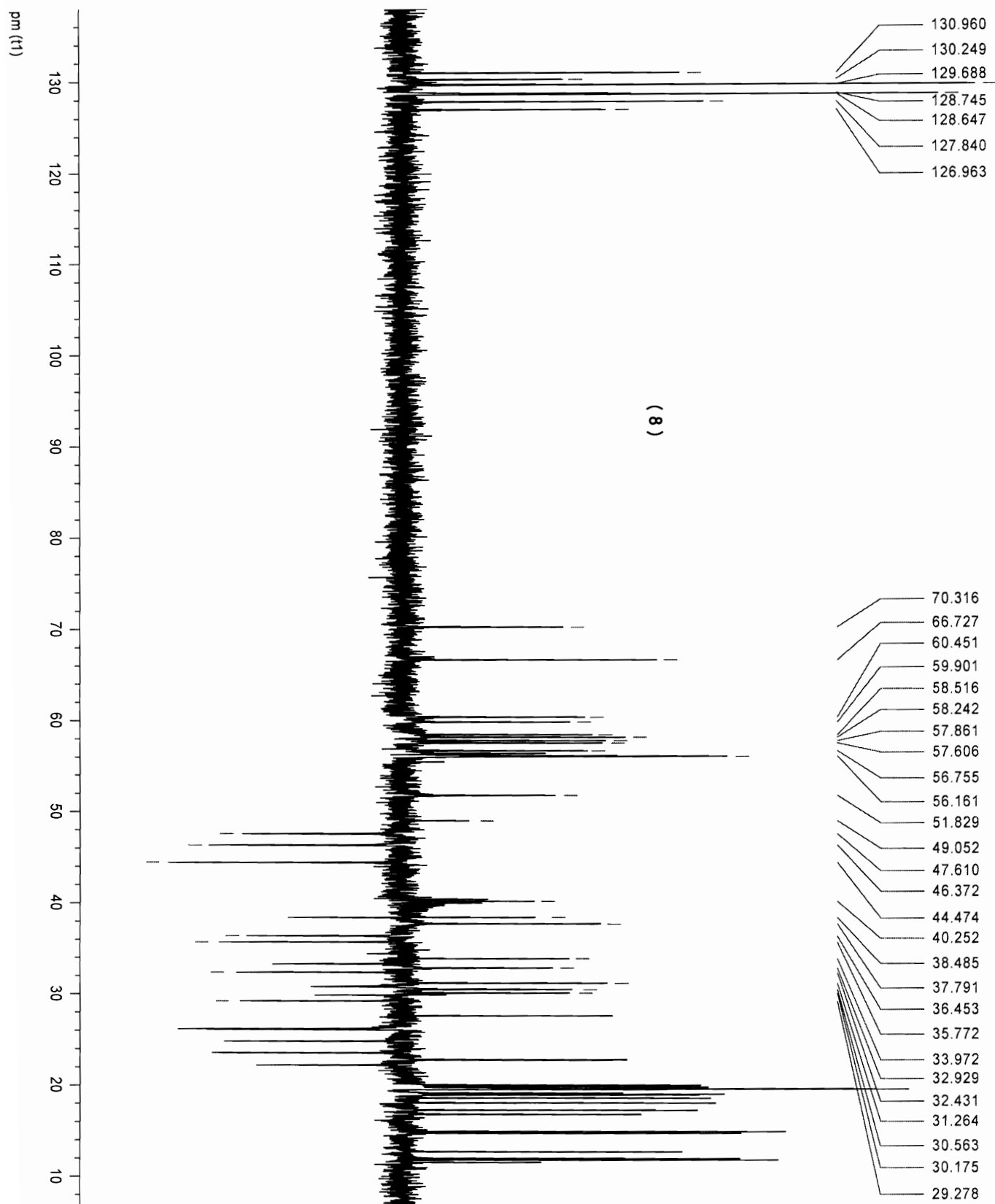




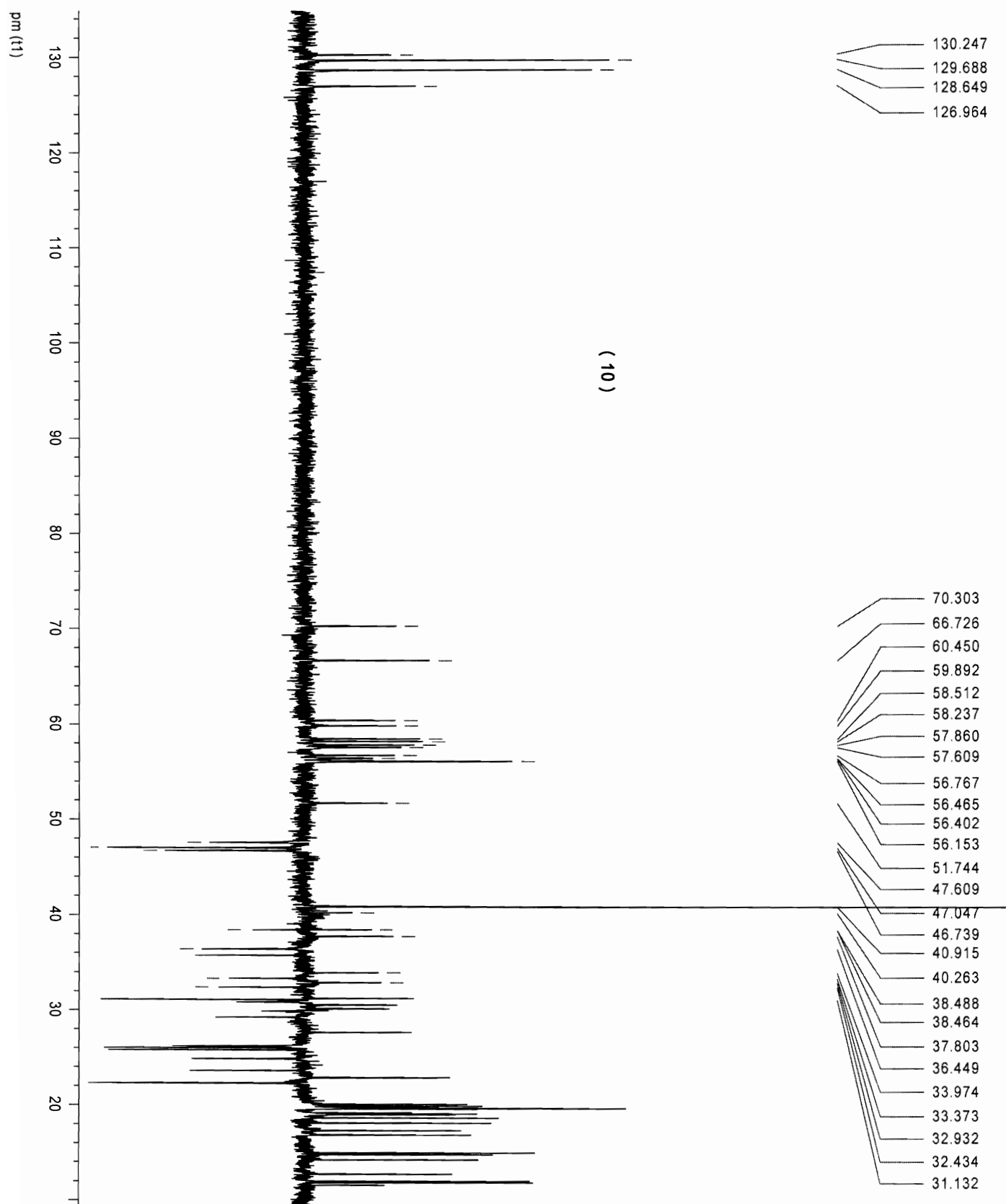






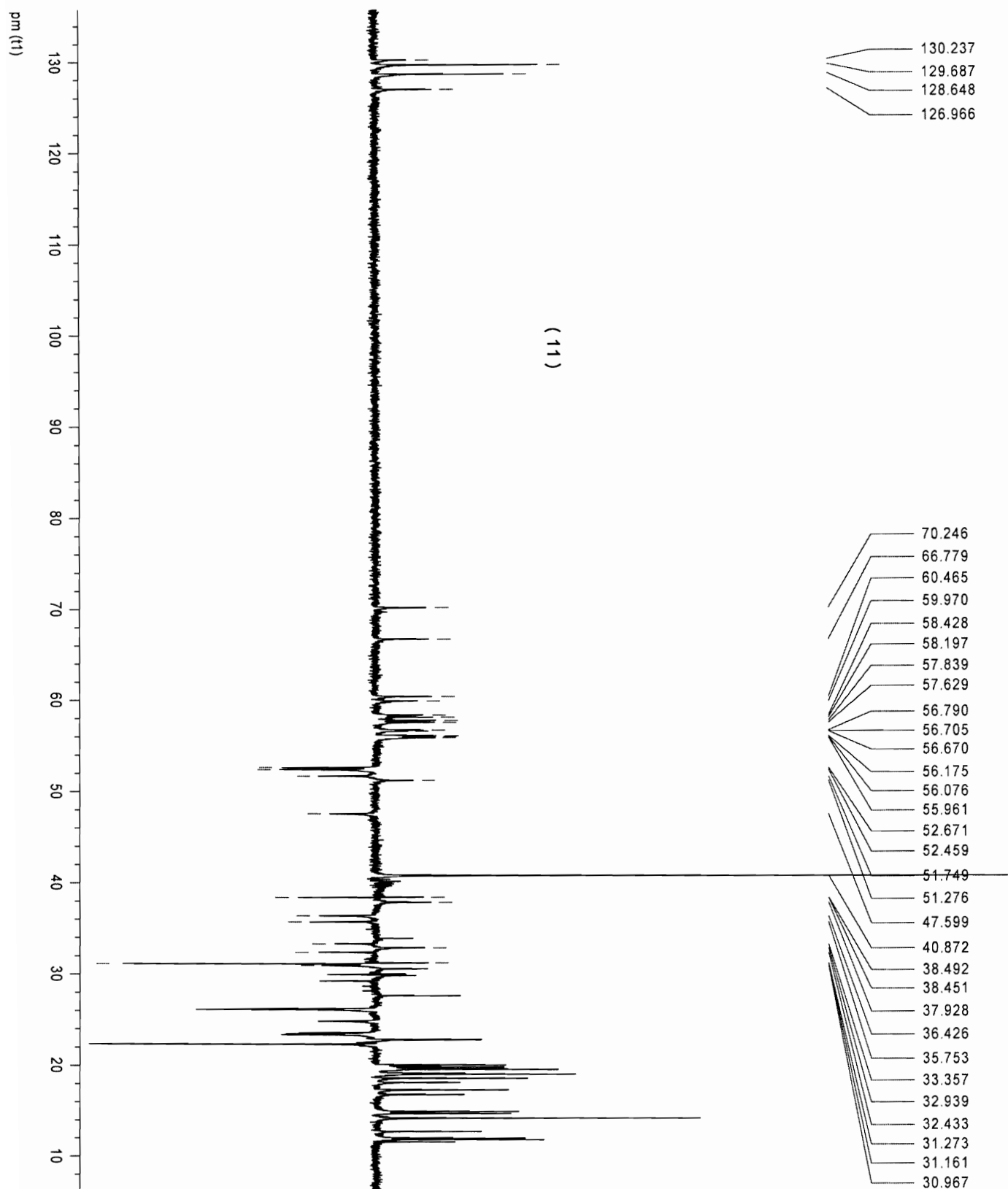




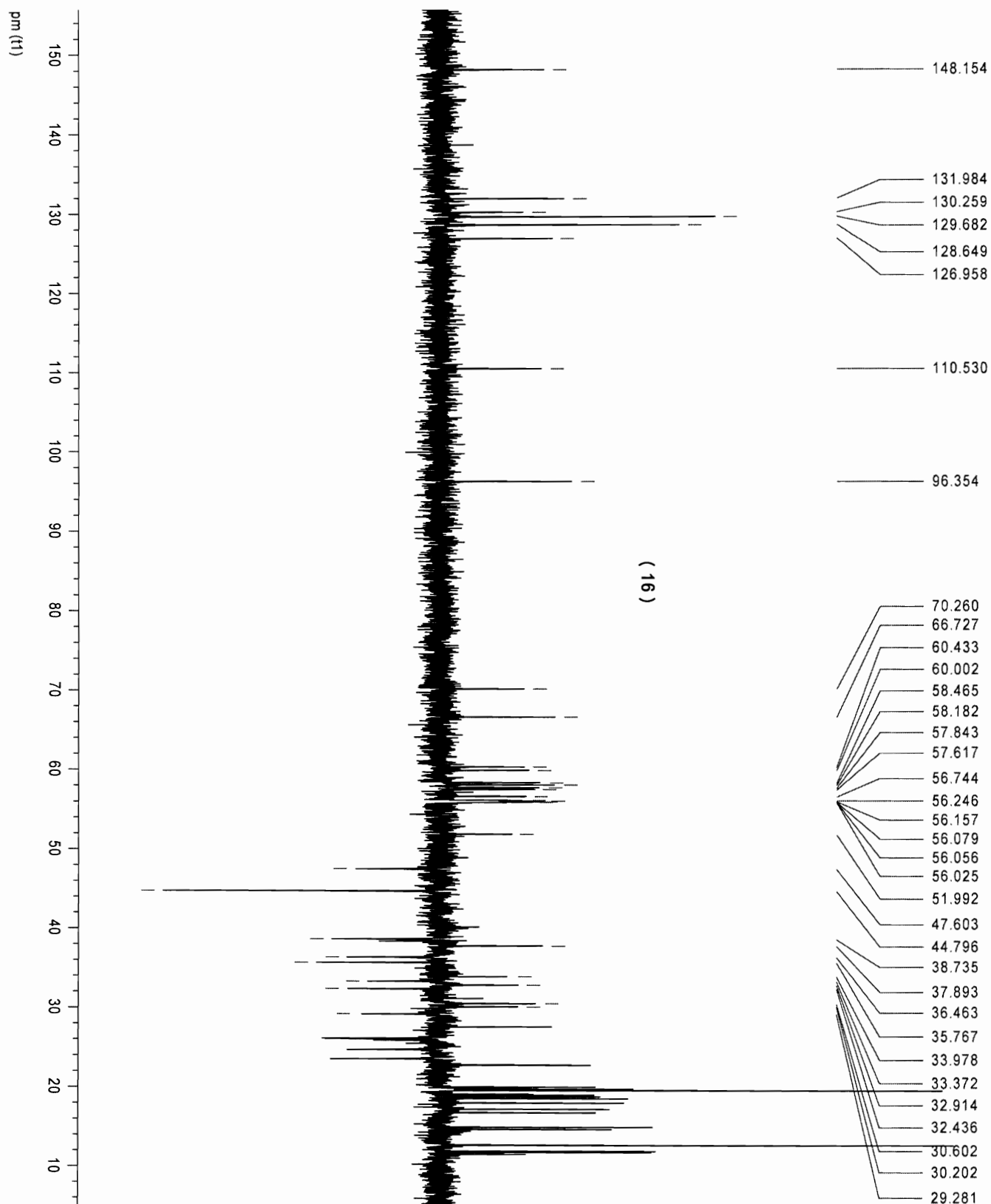


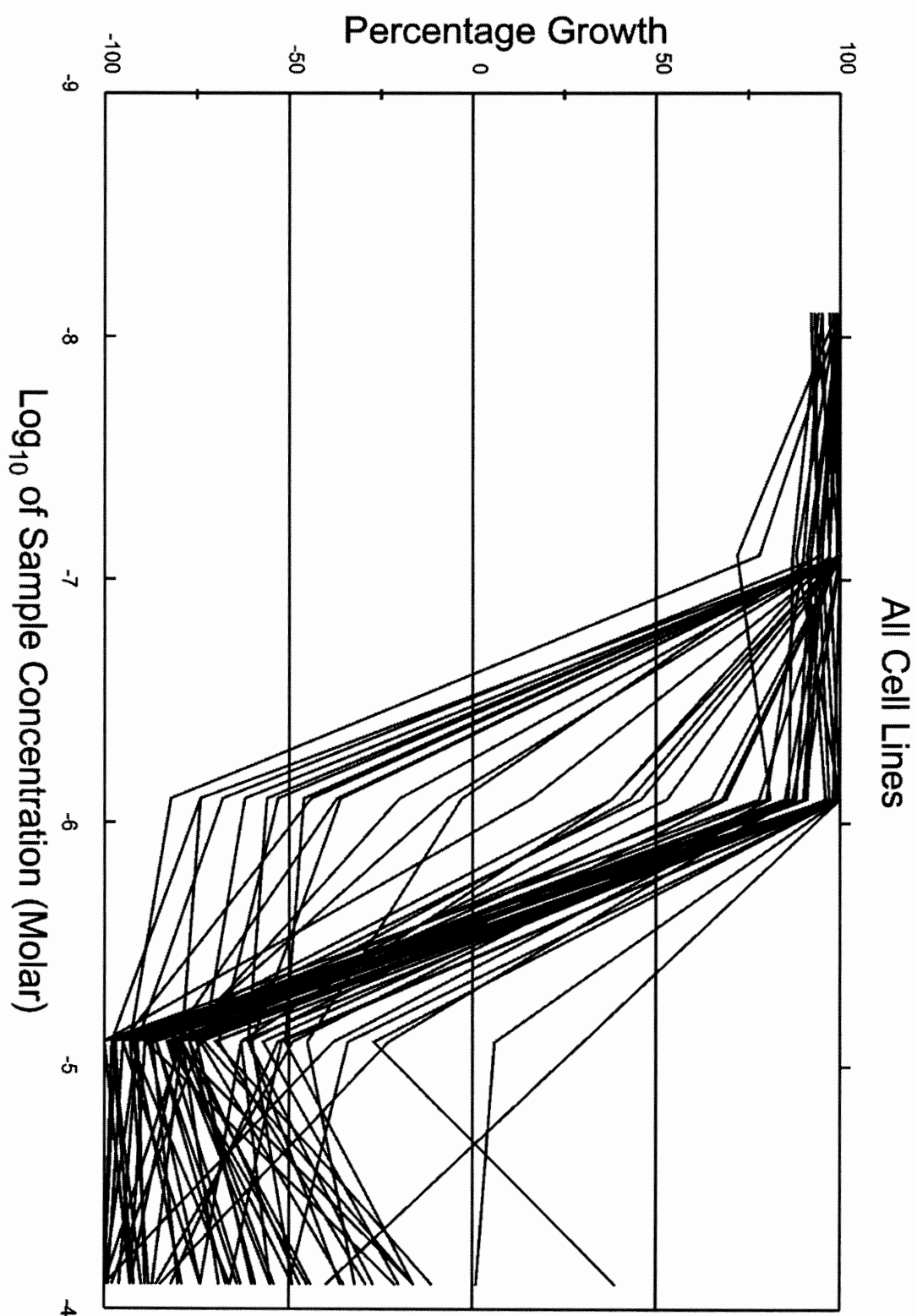


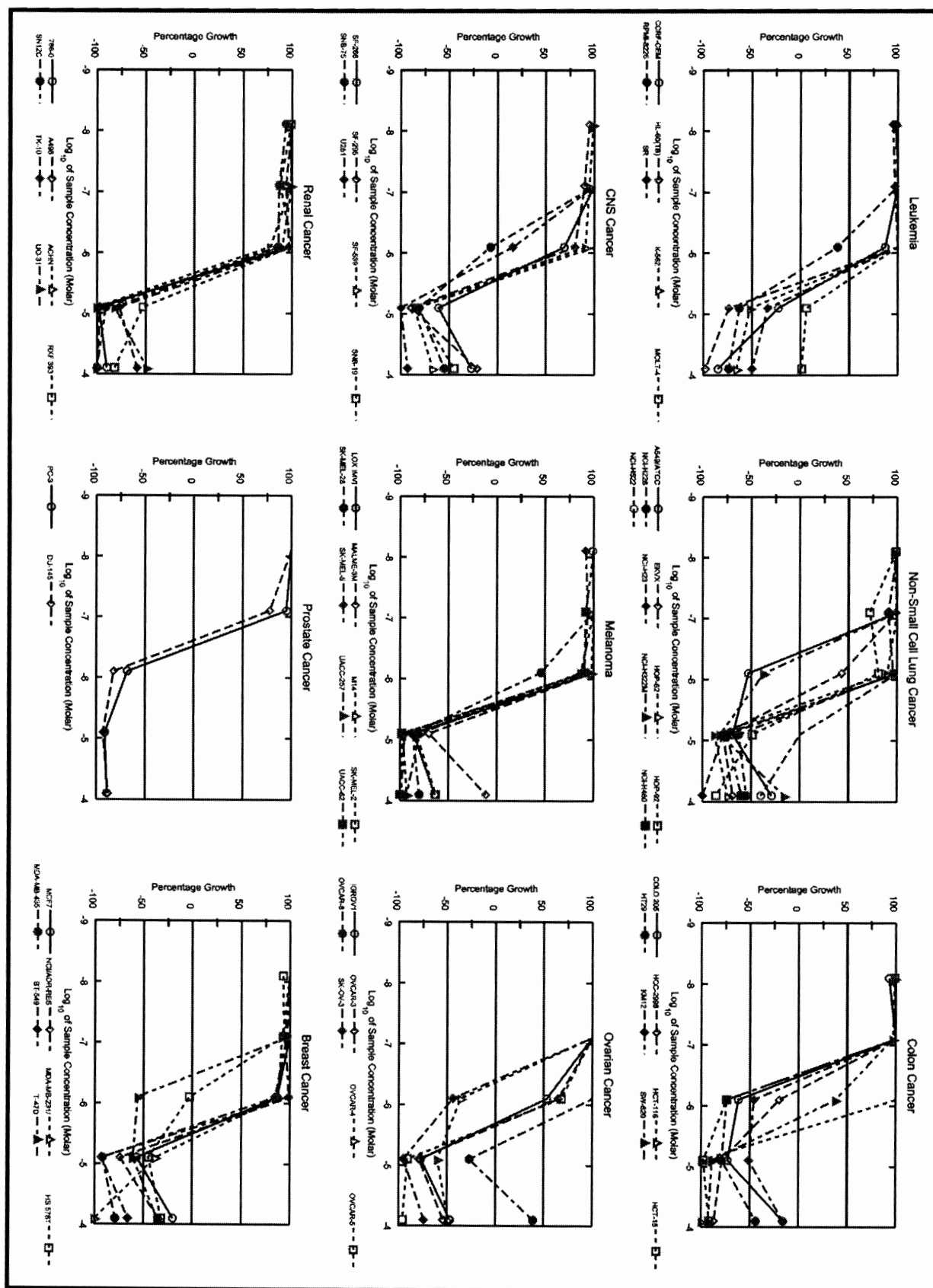




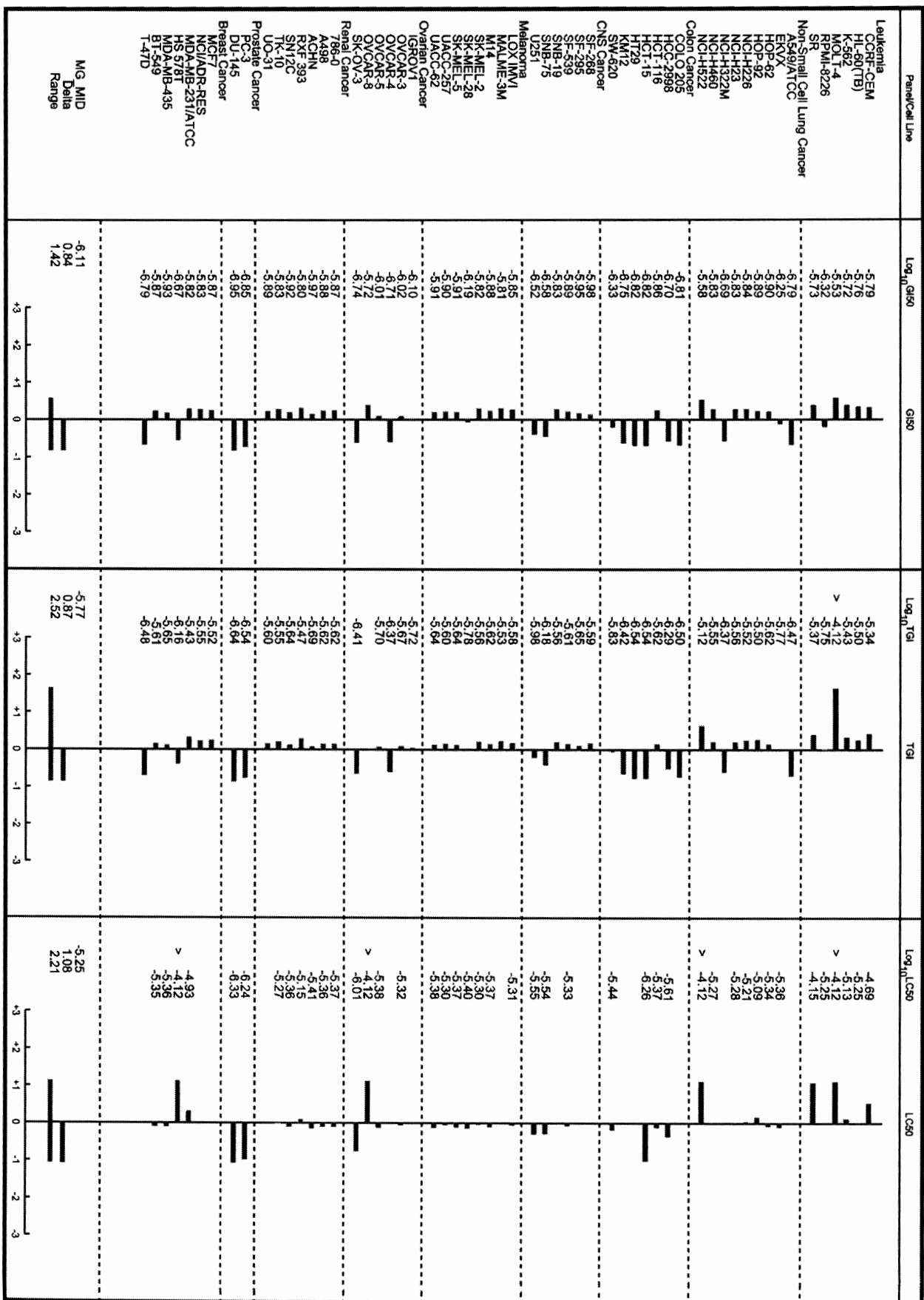




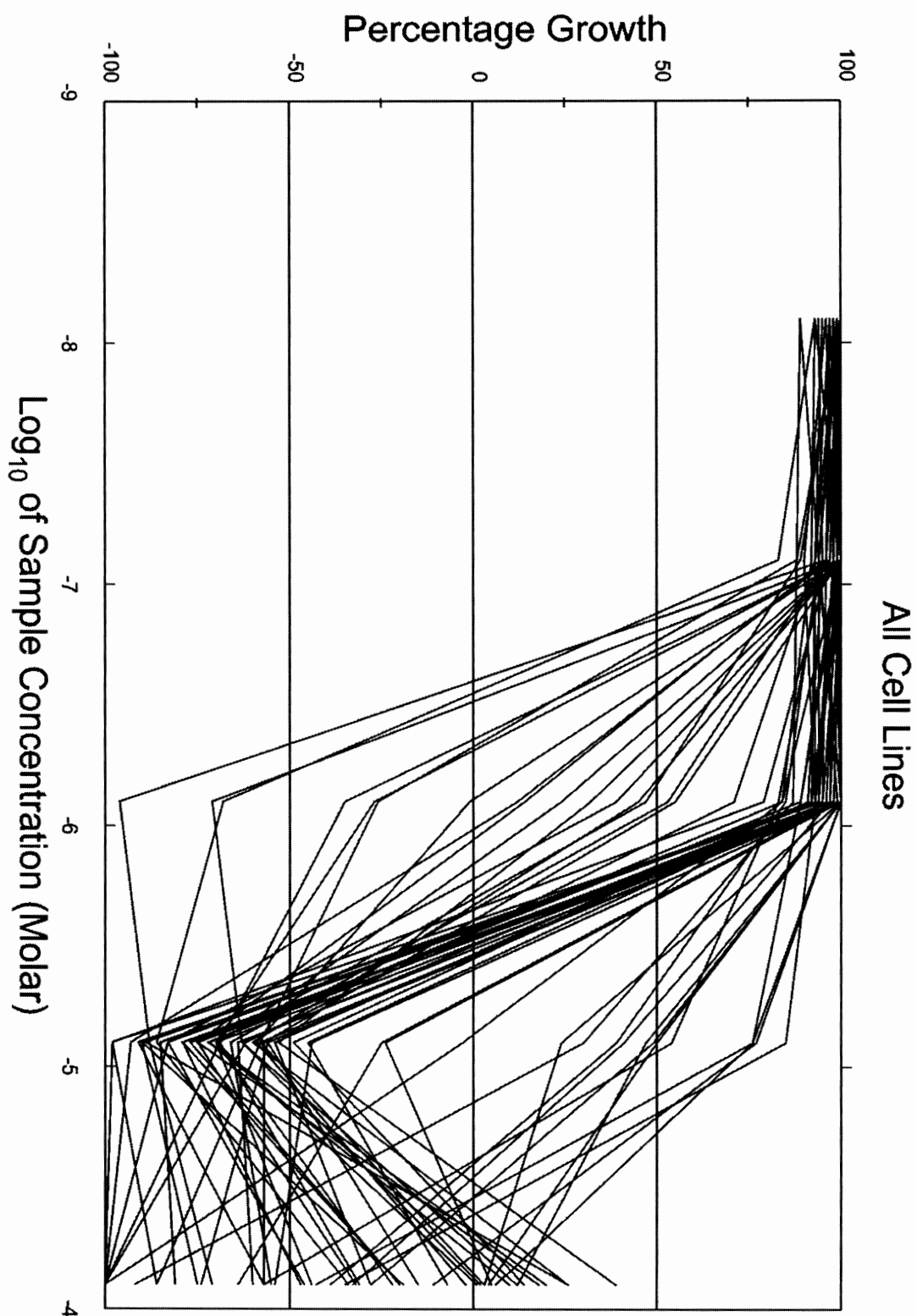


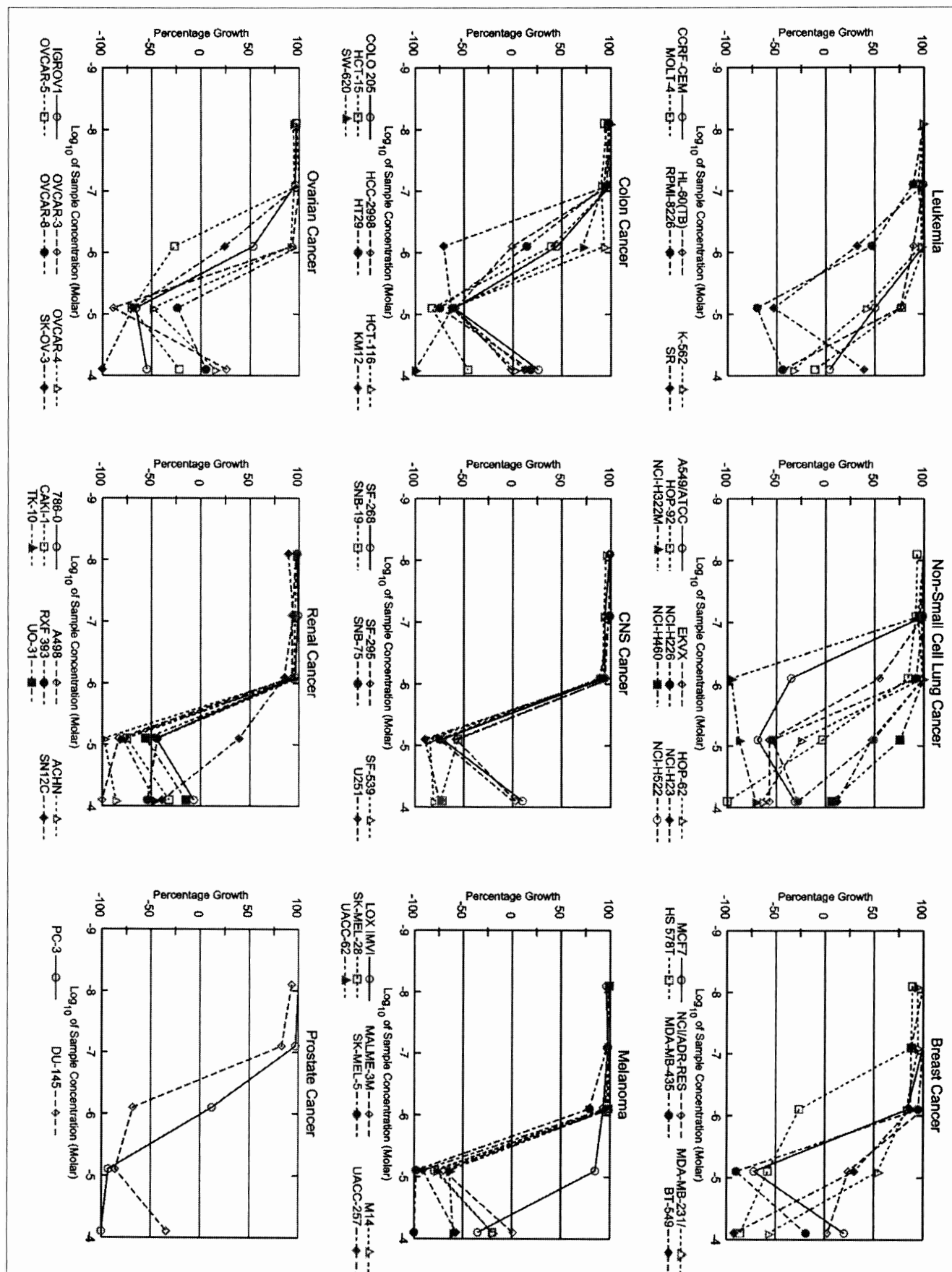


Panel/Cell Line	Time	Ctrl	-8.1	-7.1	Mean Optical Densities					Log10 Concentration					Percent Growth					GI50	TGI	LC50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
					-6.1	-5.1	-4.1	-3.1	-2.1	-6.1	-5.1	-4.1	-3.1	-2.1	-1.1	-0.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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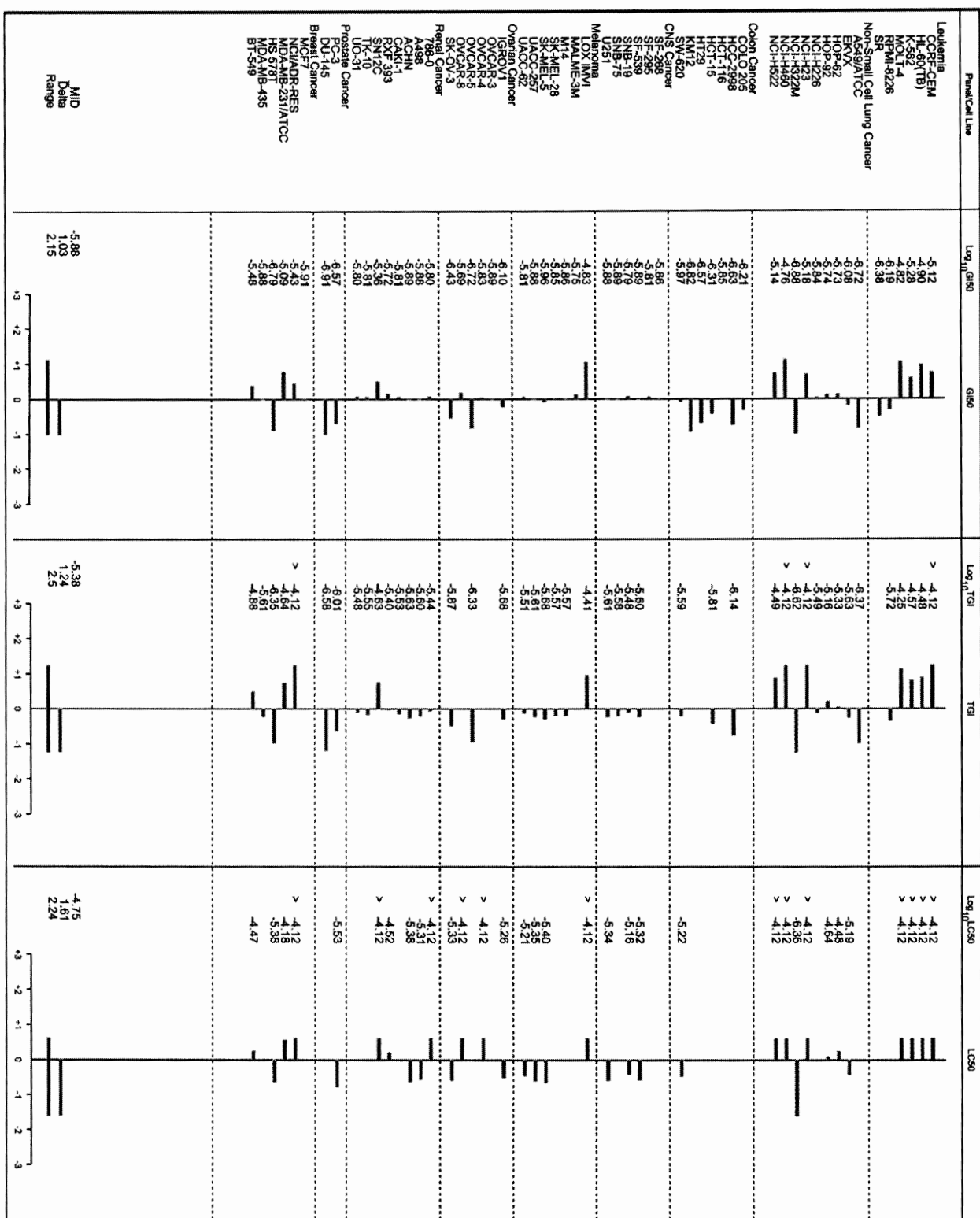


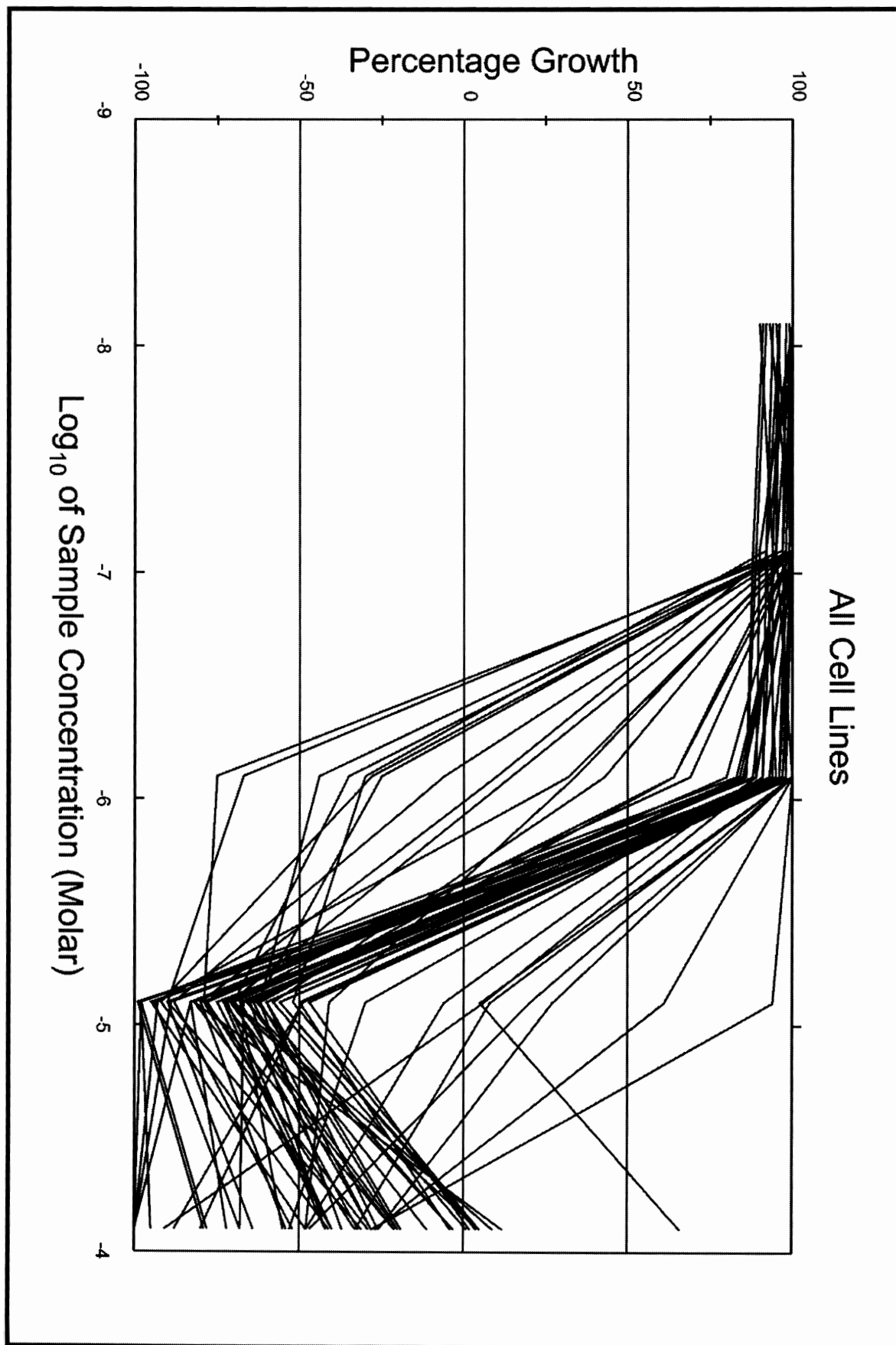






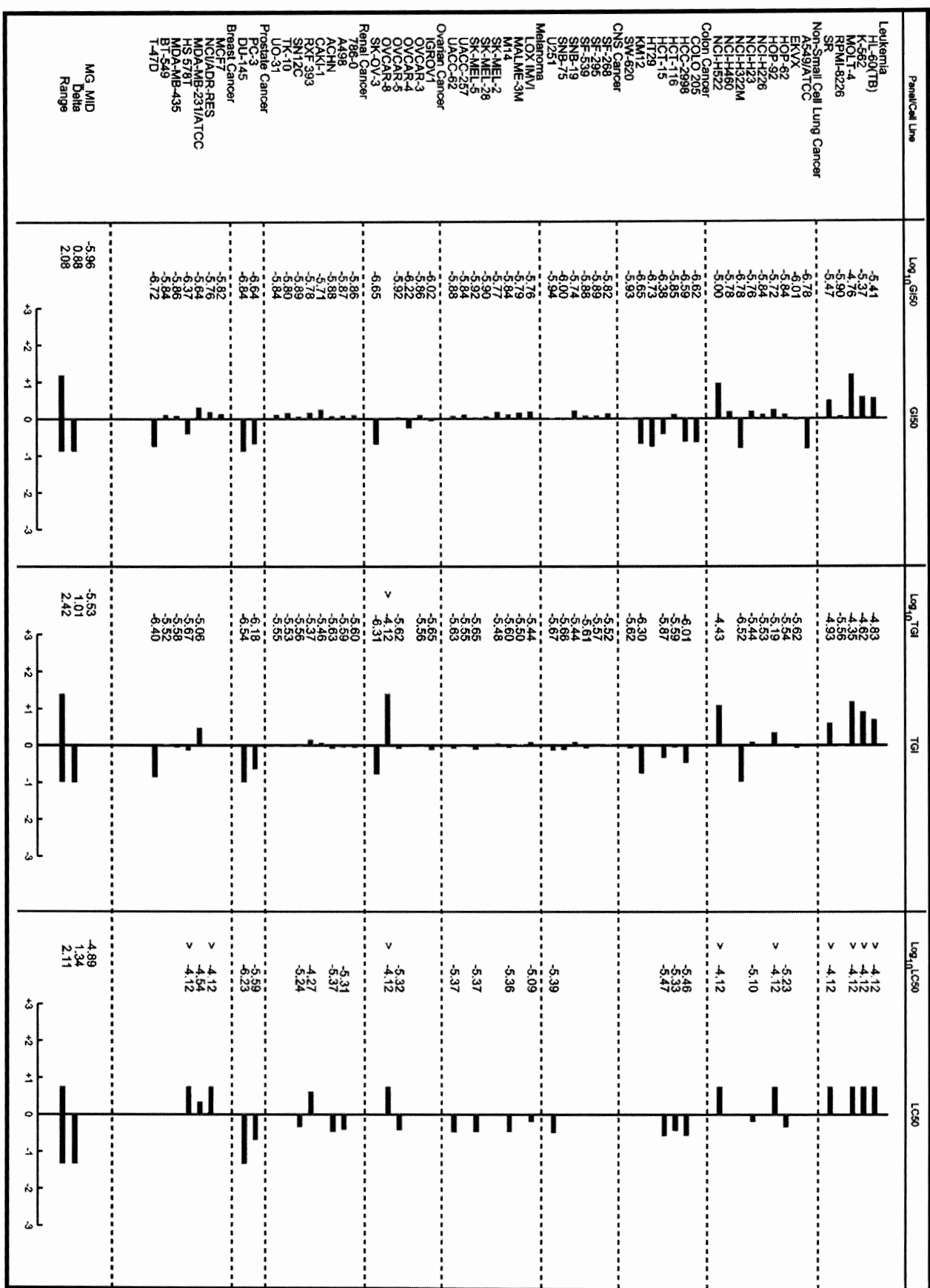
Panel/Cell Line	Time	Zero	Ctrl	Mean Optical Densities					Log10 Concentration					Percent Growth					GI50	TGI	LC50
				-8.1	-7.1	-6.1	-5.1	-4.1	-8.1	-7.1	-6.1	-5.1	-4.1								
Leukemia																					
CCRF-CEM	0.299	1.415	1.498	1.405	1.439	0.859	0.348		107	99	102	50	4	7.56E-6	> 7.50E-5	> 7.50E-5					
HL-60(TB)	0.414	2.157	2.309	2.162	1.966	1.744	0.238		109	100	89	76	-43	1.25E-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	97	41	-33	5.19E-6	> 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					
RPMI-8226	0.713	2.224	2.333	2.051	1.425	0.213	0.398		107	89	47	-70	-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	4.25E-7						
ECVX	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						
HOP-62	0.372	1.287	1.299	1.231	1.274	0.278	0.135		101	94	99	-25	-84	1.85E-6	4.69E-6						
HOP-92	1.035	1.464	1.433	1.429	1.394	1.000	-0.005		93	92	84	-3	-100	1.82E-6	6.88E-6						
NCI-H226	0.816	1.760	1.860	1.856	1.688	0.375	0.591		111	110	92	-54	-28	3.21E-6	1.48E-6						
NCI-H23	0.360	1.006	1.036	1.031	1.019	0.664	0.440		105	104	102	47	12	6.61E-6	> 7.50E-5	> 7.50E-5					
NCI-H322M	0.701	1.799	1.859	1.761	0.029	0.086	0.207		105	96	-86	-88	-71	1.31E-7	2.38E-7						
NCI-H460	0.241	1.845	1.903	1.808	1.838	1.480	0.332		104	98	100	76	6	1.78E-5	> 7.50E-5	> 7.50E-5					
NCI-H522	0.437	0.962	0.962	0.948	1.014	0.891	0.316		102	99	112	49	-28	7.32E-6	3.27E-5	> 7.50E-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							
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							
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	96	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	1.038	1.033	0.980	0.783	0.080	-0.077		99	93	71	-82	-100	1.08E-6	2.56E-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							
SF-539	0.738	1.858	1.807	1.778	1.770	0.112	0.137		95	93	92	-85	-81	1.30E-6	2.49E-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	3.33E-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	0.226	1.172	1.180	1.149	1.119	0.023	0.056		101	98	94	-90	-75	1.31E-6	2.44E-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						
MA9ME-3M	0.667	1.244	1.296	1.351	1.374	0.202	0.675		102	118	122	-70	1	1.79E-6							
M14	0.360	1.188	1.206	1.195	1.163	0.082	0.288		109	101	97	-77	-20	1.39E-6	2.70E-6						
SK-MEL-28	0.695	1.994	1.976	2.011	1.969	0.142	0.546		99	101	98	-79	-20	1.40E-6	2.68E-6						
SK-MEL-5	0.336	1.150	1.144	1.126	0.980	0.007	0.065		99	97	79	-98	-100	1.09E-6	2.10E-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						
UACC-62	0.435	1.699	1.705	1.793	1.725	0.156	0.176		100	107	102	-64	-60	1.54E-6	3.08E-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						
OVCAR-3	0.487	1.286	1.399	1.381	1.232	0.056	0.695		114	112	93	-89	26	1.30E-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						
OVCAR-8	0.552	1.798	1.827	1.865	1.894	0.422	0.617		102	105	108	-24	5	2.08E-6							
SK-OV-3	0.573	1.046	1.101	1.091	0.688	0.177	-0.018		112	109	24	-69	-100	3.74E-7	1.38E-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						
A498	0.482	0.997	0.981	0.958	0.960	0.077	0.001		97	83	93	-83	-100	1.31E-6	2.53E-6						
ACHN	0.367	1.326	1.286	1.290	1.277	0.006	0.051		97	86	95	-98	-86	1.28E-6	2.32E-6						
CAKI-1	0.571	1.098	1.132	1.137	1.138	0.144	0.367		106	107	108	-75	-32	1.55E-6	2.92E-6						
RFX 393	0.508	0.701	0.747	0.785	0.785	0.284	0.234		98	114	114	-44	-54	1.90E-6	3.94E-6						
SN12C	0.537	1.707	1.577	1.638	1.532	0.987	0.336		89	94	85	39	-39	4.37E-6	2.37E-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						
DU-145	0.170	0.686	0.651	0.598	0.065	0.025	0.113		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	106	94	-72	20	1.24E-6							
NCI/ADR-RES	0.510	1.563	1.645	1.646	1.674	0.782	0.538		108	108	111	24	3	3.75E-6	> 7.50E-5	> 7.50E-5					
MDA-MB-231/ATCC	0.515	1.190	1.149	1.165	1.078	0.881	0.224		94	95	83	54	-57	8.19E-6	2.32E-5						
HS 578T	0.432	0.776	0.737	0.736	0.320	0.180	0.050		89	88	-26	-58	-86	1.62E-7	4.44E-7						
MDA-MB-435	0.435	1.584	1.623	1.637	1.528	0.044	0.353		103	105	95	-90	-19	1.31E-6	2.49E-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						



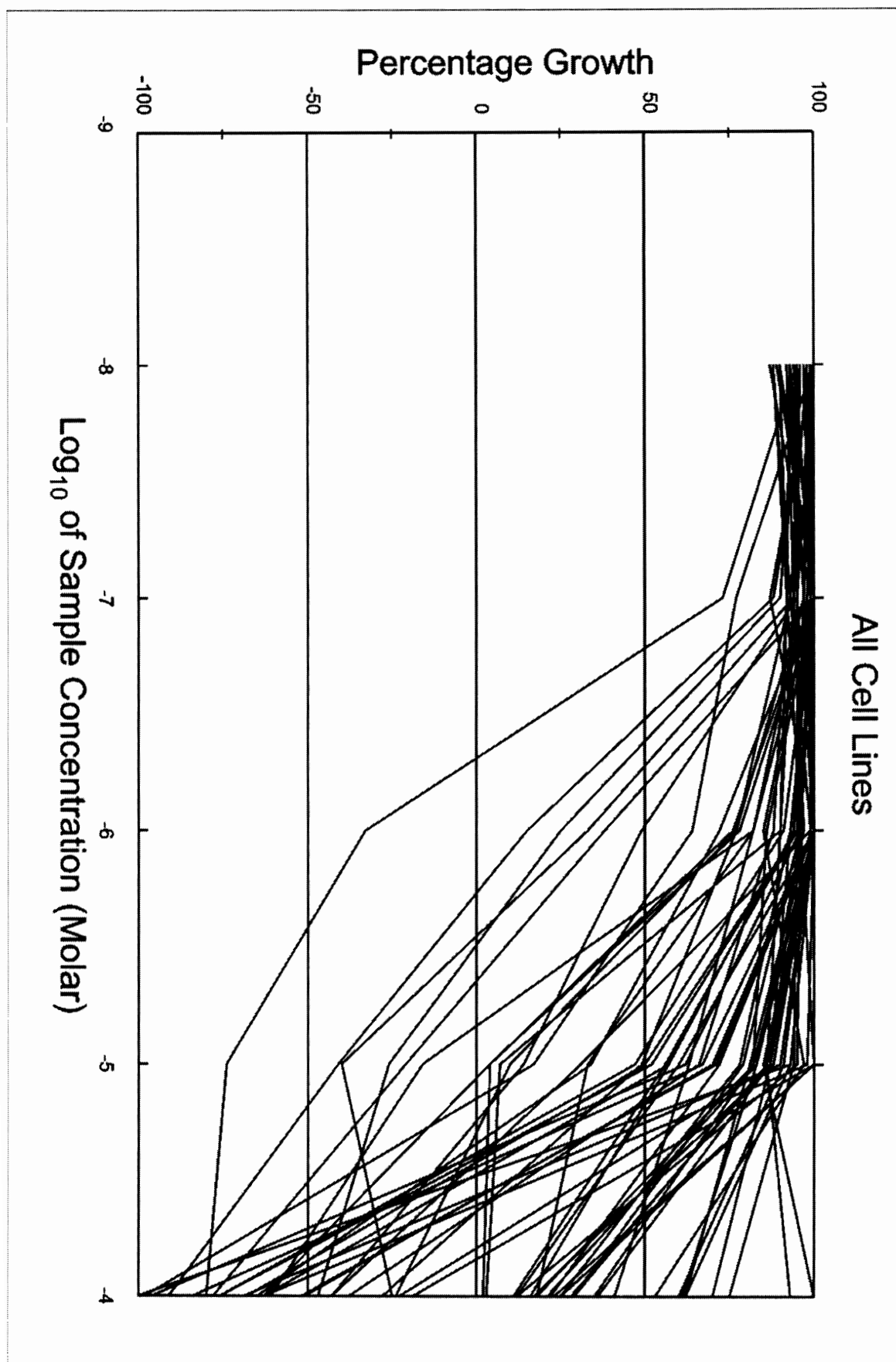


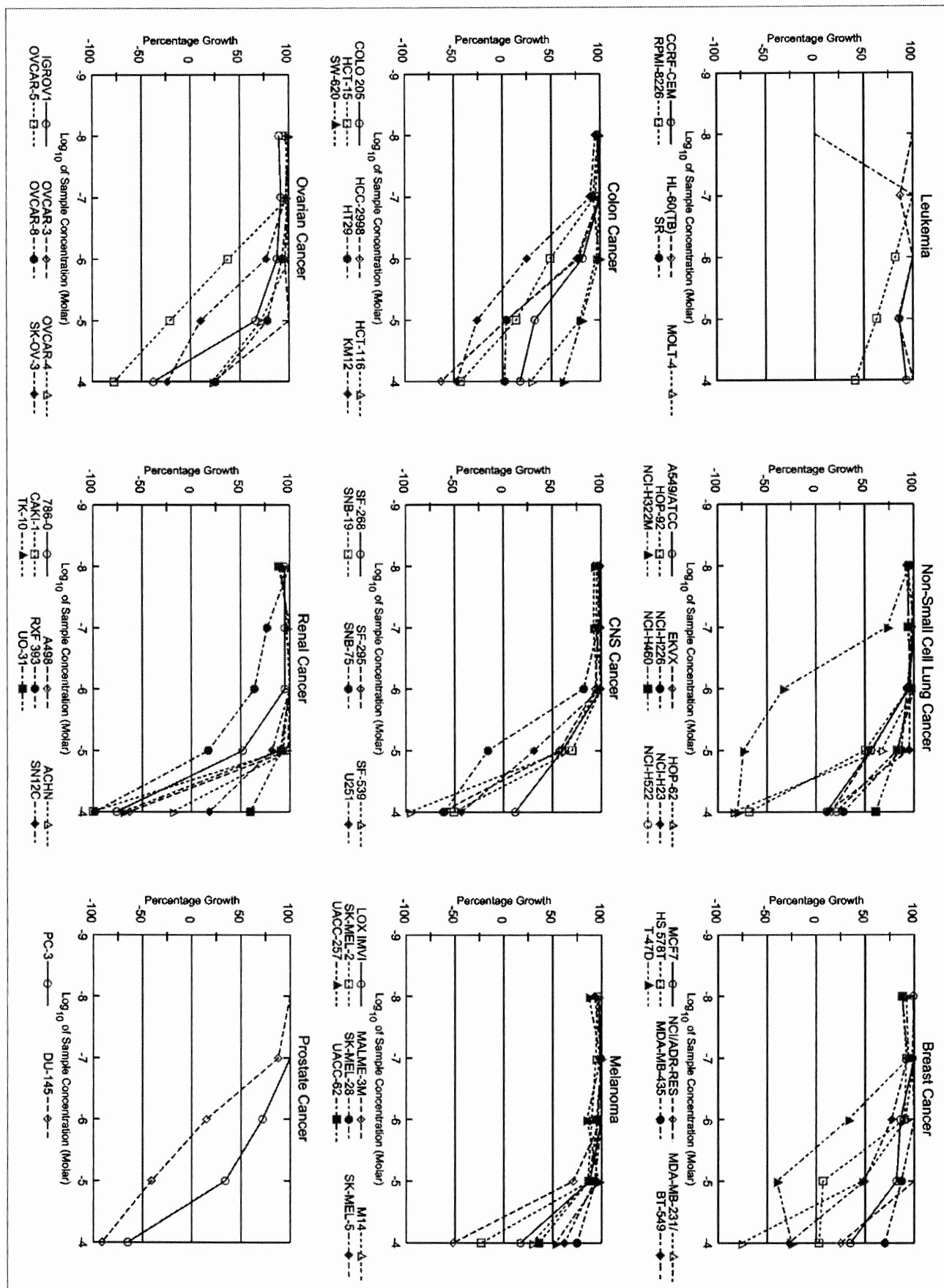


Parent/Cell Line	Time	CHI	Log10 Concentration										GI50	TGI	LC50					
			Mean Optical Densities																	
Leukemia	Zero	-8.1	-7.1	-6.1	-5.1	-4.1	-3.1	-2.1	-1.1	-0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
	0.485	1.317	1.459	1.491	1.546	0.656	0.261	117	121	128	20	-47	3.92E-6	1.47E-5	> 7.50E-5					
	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					
	0.365	1.309	1.464	1.533	1.515	0.255	0.255	116	123	122	94	-28	1.73E-6	4.42E-5	> 7.50E-5					
	0.889	2.328	2.841	2.798	2.091	0.639	0.336	136	133	84	-64	-28	1.27E-6	2.76E-6	> 7.50E-5					
Non-Small Cell Lung Cancer	SR	0.315	1.230	1.335	1.513	1.517	0.388	0.213	111	131	8	-33	3.42E-6	1.18E-5	> 7.50E-5					
	AS4/ATCC	0.311	1.725	1.721	1.615	0.217	0.148	0.382	100	92	-30	-52	1.86E-7	2.42E-6						
	EVX	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	5.82E-6				
	HOP-92	0.918	1.316	1.324	1.272	1.272	0.864	0.102	102	90	89	-6	-48	1.93E-6	6.49E-6	> 7.50E-5				
Colon Cancer	NCI-H226	0.473	1.083	1.057	1.037	1.053	0.165	0.274	96	92	85	-45	-46	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	7.97E-6				
	NCI-H322M	0.554	1.333	1.332	1.464	0.137	0.115	0.334	100	117	-75	-79	-40	1.67E-7	3.04E-7					
	NCI-H460	0.236	1.886	1.968	2.072	1.988	0.105	0.304	105	111	106	-56	4	1.67E-6	3.04E-7					
	NCI-H522	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				
CNS Cancer	COLO 205	0.211	0.919	0.981	0.930	0.214	0.062	0.247	109	102	102	-71	5	2.43E-7	2.43E-7	3.51E-6				
	HCC-2998	0.549	1.615	1.666	1.565	0.656	0.112	0.252	105	95	10	-80	-54	2.55E-7	9.71E-7	4.70E-6				
	HCT-116	0.124	1.095	1.171	1.157	1.129	0.014	-0.026	108	106	104	-89	-100	1.42E-6	2.59E-6	4.70E-6				
	HCT-15	0.223	1.512	1.510	1.528	0.640	0.015	-0.019	100	101	32	-93	-100	4.18E-7	1.36E-6	3.39E-6				
	HT29	0.168	1.123	1.186	1.181	0.109	0.051	0.255	107	106	106	-35	9	1.87E-7	5.03E-7					
Melanoma	SK-MEL-2	0.234	1.432	1.321	1.293	1.267	0.015	0.076	91	88	86	-94	-68	1.19E-6	2.28E-6	4.28E-6				
	SK-MEL-5	0.234	1.432	1.321	1.293	1.267	0.015	0.076	91	88	86	-94	-68	1.19E-6	2.28E-6	4.28E-6				
	UACC-267	1.047	2.222	2.204	2.240	2.200	0.286	0.827	99	102	98	-73	-21	1.44E-6	2.82E-6	4.25E-6				
	UACC-62	0.620	2.267	2.300	2.214	2.222	0.010	-0.062	103	97	98	-98	-100	1.31E-6	2.36E-6	4.25E-6				
	LOX IMVI	0.193	1.301	1.329	1.384	1.366	0.099	0.024	103	106	106	-49	-88	1.72E-6	3.63E-6	8.10E-6				
Ovarian Cancer	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	4.35E-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	0.965	0.781	0.062	0.102	109	123	85	-83	-72	1.21E-6	2.40E-6	> 7.50E-5				
	OVCA9-8	0.099	0.531	0.531	0.482	0.521	0.120	0.386	107	95	105	5	66	2.23E-7	4.85E-7	> 7.50E-5				
Renal Cancer	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	4.85E-7	> 7.50E-5				
	786-D	0.322	1.332	1.368	1.406	1.361	0.017	0.166	103	107	103	-95	-48	1.39E-6	2.48E-6	4.89E-6				
	A498	1.109	1.751	1.750	1.741	1.728	0.186	-0.052	100	98	96	-83	-100	1.38E-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				
	CAN-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	5.42E-5				
Breast Cancer	MDA-MB-231(ATCC)	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	-91	2.30E-6	2.13E-6	> 7.50E-5				
	HS 578T	0.426	0.884	0.882	0.883	0.882	0.251	0.221	100	108	34	-41	-48	4.27E-7	2.61E-6	> 7.50E-5				
	MDA-MB-435	0.475	1.553	1.623	1.638	1.514	0.087	0.338	106	108	96	-82	-29	1.37E-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					
Prostate Cancer	T-47D	0.627	1.303	1.334	1.400	0.348	0.238	0.500	105	114	-44	-62	-20	1.91E-7	3.94E-7					
	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				
	MCF7	0.287	1.702	1.841	1.777	1.683	0.127	0.355	110	105	97	-56	5	1.53E-6		> 7.50E-5				
	NCI/ADR-RS	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	2.86E-5				

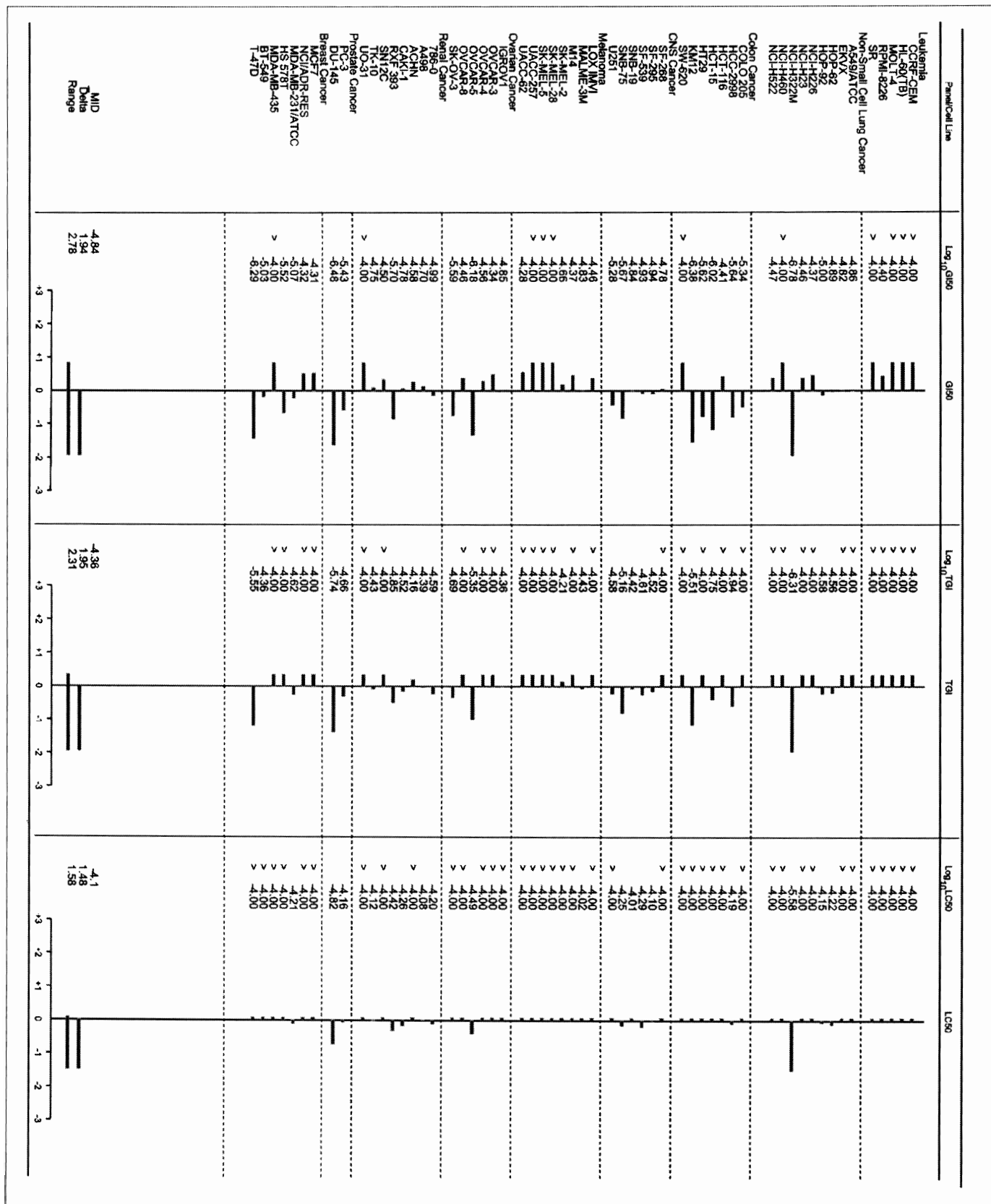


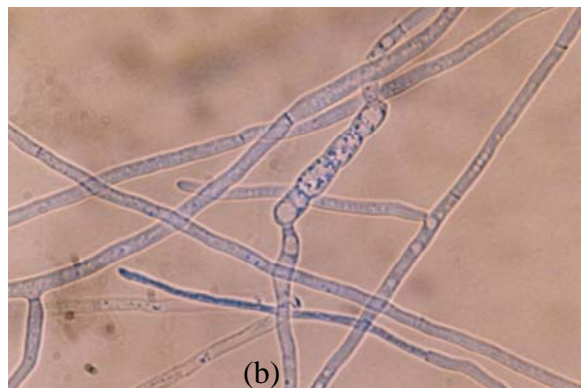
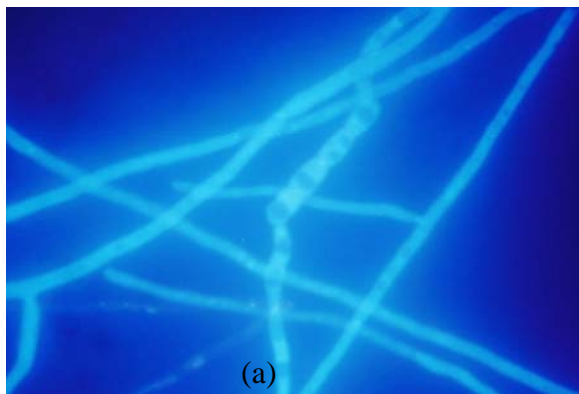




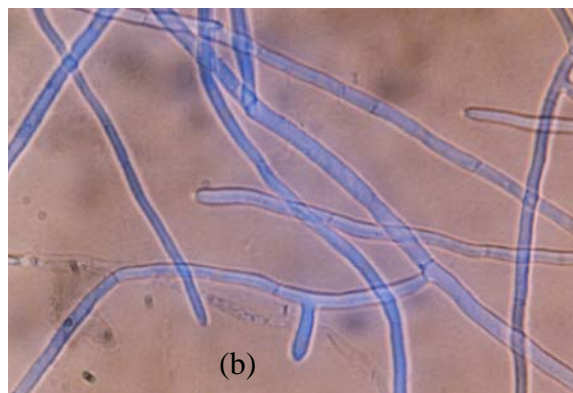
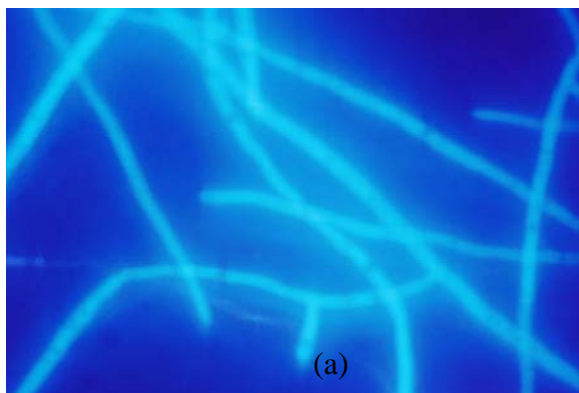


Panel/Cell Line	Time	CHI	Mean Optical Densities					Percent Growth					G560	TGI	LC50
			-8.0	-7.0	-6.0	-5.0	-4.0	-8.0	-7.0	-6.0	-5.0	-4.0			
Leukemia															
COEC-CEM	0.581	2.129	2.227	2.148	2.226	1.918	2.025	106	101	106	86	93	> 1.00E-4	> 1.00E-4	> 1.00E-4
HL-60(TB)	0.274	0.777	0.867	0.712	0.761	0.701	0.784	118	87	101	85	101	> 1.00E-4	> 1.00E-4	> 1.00E-4
MOLT-4	0.251	1.003	1.001	1.080	1.129	1.062	1.343	100	110	117	108	145	> 1.00E-4	> 1.00E-4	> 1.00E-4
RPW4-8226	0.695	2.041	2.091	1.797	1.593	1.253		102	104	82	63	41	> 1.00E-4	> 1.00E-4	> 1.00E-4
SR	0.222	0.400	0.534	0.830	0.928	0.776	0.690		341	396	311	263	> 1.00E-4	> 1.00E-4	> 1.00E-4
Non-Small Cell Lung Cancer															
AS46/ATCC	0.306	1.475	1.539	1.583	1.418	0.963	0.433	106	108	95	58	11	1.37E-5	> 1.00E-4	> 1.00E-4
EXFV	0.549	1.732	1.736	1.706	1.680	1.227	0.743	100	90	94	57	16	1.31E-5	> 1.00E-4	> 1.00E-4
HOP-82	0.406	1.312	1.262	1.326	1.369	1.014	0.066	104	102	106	67	34	1.30E-5	> 1.00E-4	> 1.00E-4
HOP-92	0.512	0.871	0.869	0.884	0.852	0.892	0.163	100	104	95	50	48	1.00E-5	> 1.00E-4	> 1.00E-4
NCH-H226	0.581	1.850	1.873	1.876	1.763	1.881	0.943	102	102	93	87	28	4.27E-5	> 1.00E-4	> 1.00E-4
NCH-H223	0.612	1.850	1.861	1.879	1.685	1.678	0.747	93	95	96	95	12	3.48E-5	> 1.00E-4	> 1.00E-4
NCH-H322M	0.557	1.532	1.481	1.288	0.375	0.146	0.114	95	74	33	74	-80	1.85E-7	> 1.00E-4	> 1.00E-4
NCH-H460	0.215	2.184	2.094	2.075	2.122	1.852	1.416	95	93	97	83	61	> 1.00E-4	> 1.00E-4	> 1.00E-4
NCH-H522	0.249	0.686	0.696	0.708	0.724	0.612	0.340	102	105	109	83	21	3.40E-5	> 1.00E-4	> 1.00E-4
Colon Cancer															
COLO 205	0.340	1.410	1.376	1.498	1.213	0.697	0.528	97	108	82	33	16	4.52E-6	> 1.00E-4	> 1.00E-4
HCC-2998	0.634	1.855	1.836	2.222	1.559	0.679	0.238	96	130	76	4	-63	2.27E-6	> 1.00E-4	> 1.00E-4
HCT-116	0.123	1.131	1.102	1.171	1.093	0.922	0.419	97	104	96	79	29	3.85E-5	> 1.00E-4	> 1.00E-4
HCT-15	0.304	1.557	1.612	1.497	0.921	0.485	0.172	104	96	49	14	-43	9.64E-7	> 1.00E-4	> 1.00E-4
HT29	0.132	1.228	1.241	1.251	0.985	0.178	0.158	101	102	78	4	2	2.39E-6	> 1.00E-4	> 1.00E-4
KM12	0.290	1.284	1.232	1.184	0.540	0.214	0.154	95	90	25	-26	-47	4.13E-7	> 1.00E-4	> 1.00E-4
SW-620	0.186	1.404	1.380	1.313	1.396	1.174	0.838	98	93	99	81	62	> 1.00E-4	> 1.00E-4	> 1.00E-4
CNS Cancer															
SF-268	0.231	1.098	1.081	1.173	1.112	0.755	0.334	98	109	102	60	12	1.64E-5	> 1.00E-4	> 1.00E-4
SF-265	0.678	2.223	2.301	2.178	2.127	1.564	0.264	105	97	94	62	-63	1.15E-5	> 1.00E-4	> 1.00E-4
SF-539	0.671	2.103	2.004	1.995	2.050	1.555	0.030	93	92	96	57	-29	1.19E-5	> 1.00E-4	> 1.00E-4
SNB-19	0.691	1.625	1.590	1.574	1.648	1.343	0.339	96	95	102	70	-51	1.46E-5	> 1.00E-4	> 1.00E-4
SNB-75	0.573	1.155	1.141	1.136	1.049	0.482	0.222	98	97	82	-16	-61	2.11E-6	> 1.00E-4	> 1.00E-4
U251	0.275	1.286	1.279	1.277	1.278	0.592	0.156	99	99	99	31	-43	5.31E-6	> 1.00E-4	> 1.00E-4
Melanoma															
LOX IMVI	0.270	1.595	1.550	1.577	1.690	1.442	0.498	97	99	107	88	17	3.45E-5	> 1.00E-4	> 1.00E-4
MALME-3M	0.514	0.959	0.979	0.948	1.006	0.828	0.245	105	98	111	71	-52	1.47E-5	> 1.00E-4	> 1.00E-4
M14	0.352	1.229	1.191	1.174	1.141	1.104	0.606	96	94	90	86	29	4.26E-5	> 1.00E-4	> 1.00E-4
SK-MEL-2	0.890	1.909	1.953	1.906	1.984	1.783	0.684	104	100	107	88	-23	2.18E-5	> 1.00E-4	> 1.00E-4
SK-MEL-28	0.278	1.246	1.270	1.280	1.203	1.190	1.007	102	103	95	94	75	> 1.00E-4	> 1.00E-4	> 1.00E-4
SK-MEL-5	0.329	1.710	1.619	1.740	1.744	1.610	1.188	93	102	102	93	62	> 1.00E-4	> 1.00E-4	> 1.00E-4
UACC-257	0.748	1.857	1.713	1.846	1.694	1.826	1.339	87	99	85	97	53	> 1.00E-4	> 1.00E-4	> 1.00E-4
UACC-62	0.470	2.271	2.307	2.313	2.191	2.039	1.116	102	102	96	87	36	5.30E-5	> 1.00E-4	> 1.00E-4
Ovarian Cancer															
IGROV1	0.525	1.791	1.661	1.695	1.641	1.355	0.328	90	92	88	66	-38	1.41E-5	> 1.00E-4	> 1.00E-4
OVCAR-3	0.398	1.346	1.404	1.361	1.313	1.375	0.671	106	102	96	103	23	4.56E-5	> 1.00E-4	> 1.00E-4
OVCAR-4	0.364	1.305	1.291	1.276	1.325	1.044	0.571	99	97	102	72	22	2.77E-5	> 1.00E-4	> 1.00E-4
OVCAR-5	0.641	2.105	2.059	2.198	1.192	0.509	0.140	97	106	38	-21	-78	6.60E-7	> 1.00E-4	> 1.00E-4
OVCAR-8	0.426	2.015	2.093	2.117	1.907	1.672	0.830	105	106	93	78	25	3.44E-5	> 1.00E-4	> 1.00E-4
SK-OV-3	0.440	1.094	1.093	1.073	0.944	0.508	0.336	100	97	77	10	-24	2.55E-6	> 1.00E-4	> 1.00E-4
Fetal Cancer															
786-O	0.577	2.270	2.190	2.190	2.192	1.452	0.140	95	95	95	52	-76	1.03E-5	> 1.00E-4	> 1.00E-4
A498	1.303	1.859	1.801	1.890	1.888	1.847	0.486	90	105	105	98	-63	1.99E-5	> 1.00E-4	> 1.00E-4
ACHN	0.391	1.223	1.288	1.324	1.318	1.224	0.319	108	112	112	100	-19	2.64E-5	> 1.00E-4	> 1.00E-4
CANC-1	1.115	1.156	1.187	1.148	1.148	1.073	-0.001	108	111	105	93	-100	1.98E-5	> 1.00E-4	> 1.00E-4
RFX-393	0.470	1.394	1.450	1.246	1.161	0.856	0.017	109	77	64	17	-98	1.98E-6	> 1.00E-4	> 1.00E-4
SN12C	0.417	1.713	1.732	1.759	1.715	1.474	0.650	101	104	100	82	18	3.13E-5	> 1.00E-4	> 1.00E-4
TK-10	0.595	1.271	1.224	1.248	1.287	1.205	0.183	93	97	102	90	-69	1.79E-5	> 1.00E-4	> 1.00E-4
UO-31	0.584	2.027	1.869	2.028	2.051	1.903	1.452	89	100	102	91	60	> 1.00E-4	> 1.00E-4	> 1.00E-4
Prostate Cancer															
PC-3	0.197	0.825	0.882	0.864	0.647	0.408	0.068	109	106	72	34	-65	3.70E-6	> 1.00E-4	> 1.00E-4
DU-145	0.270	1.197	1.236	1.087	0.406	0.160	0.024	104	88	15	-41	-91	3.30E-7	> 1.00E-4	> 1.00E-4
Breast Cancer															
MCF7	0.353	1.817	1.801	1.868	1.619	1.560	0.871	99	103	86	82	35	4.89E-5	> 1.00E-4	> 1.00E-4
NCIADR-RES	0.411	1.162	1.317	1.188	1.240	1.178	0.801	121	109	110	82	25	4.77E-5	> 1.00E-4	> 1.00E-4
MDAMB-231(ATCC)	0.452	1.258	1.307	1.282	1.183	0.882	0.109	106	103	91	47	-78	8.60E-6	> 1.00E-4	> 1.00E-4
HS 578T	0.482	0.987	0.926	0.646	0.934	0.520	0.049	86	82	90	17	3	3.02E-6	> 1.00E-4	> 1.00E-4
MDAMB-435	0.367	1.663	1.701	1.634	1.661	1.469	1.275	103	88	101	87	70	> 1.00E-4	> 1.00E-4	> 1.00E-4
BT-549	0.683	1.544	1.443	1.468	1.347	1.107	0.485	86	93	77	49	-28	9.38E-6	> 1.00E-4	> 1.00E-4
T-47D	0.610	1.395	1.334	1.345	0.866	0.369	0.459	92	94	33	40	-25	5.18E-7	> 1.00E-4	> 1.00E-4

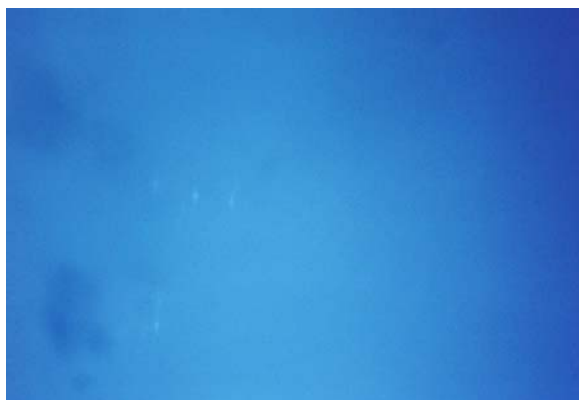




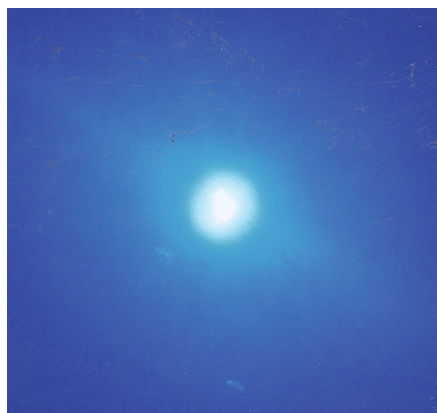
Mycelia of *F. solani* after exposure with coumarine (a) under fluorescence microscope  
(b) under light microscope



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

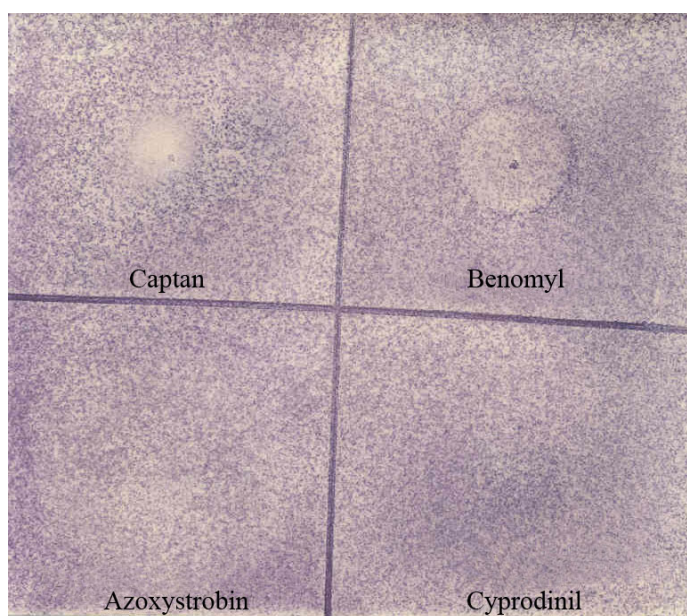
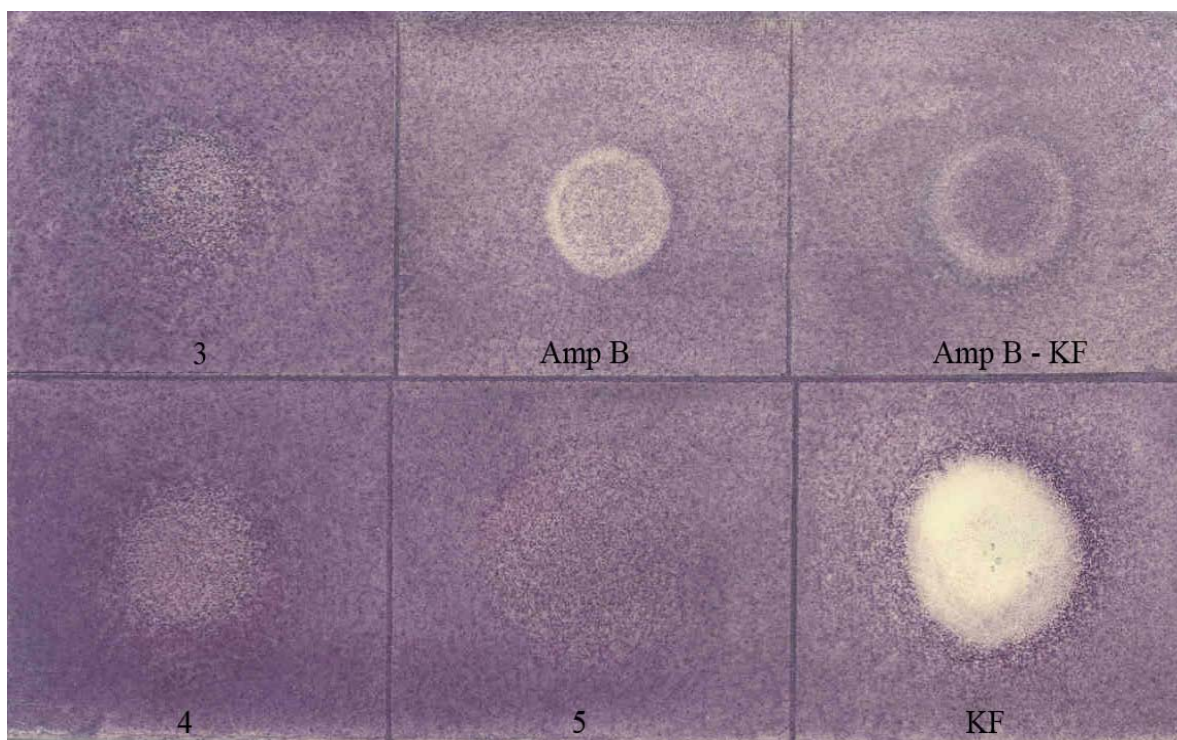


Mycelia untreated with fluorescence compound under fluorescence microscope: no autofluorescence has been observed



KF-coumarine under fluorescence microscope

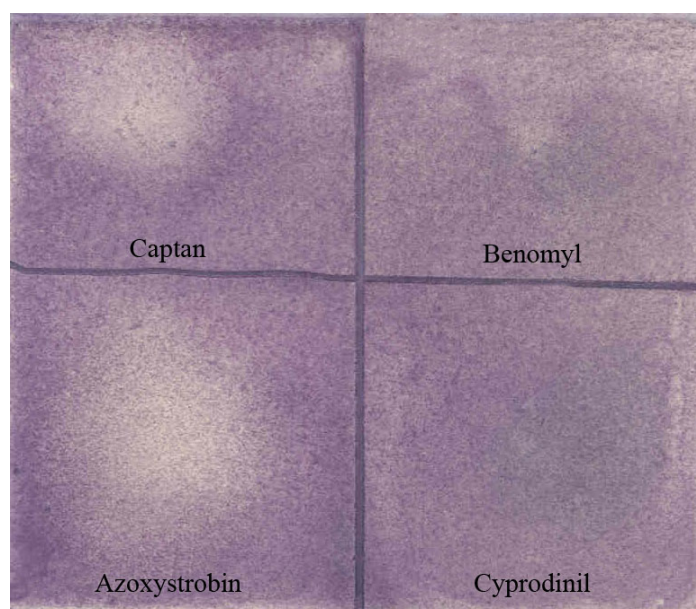
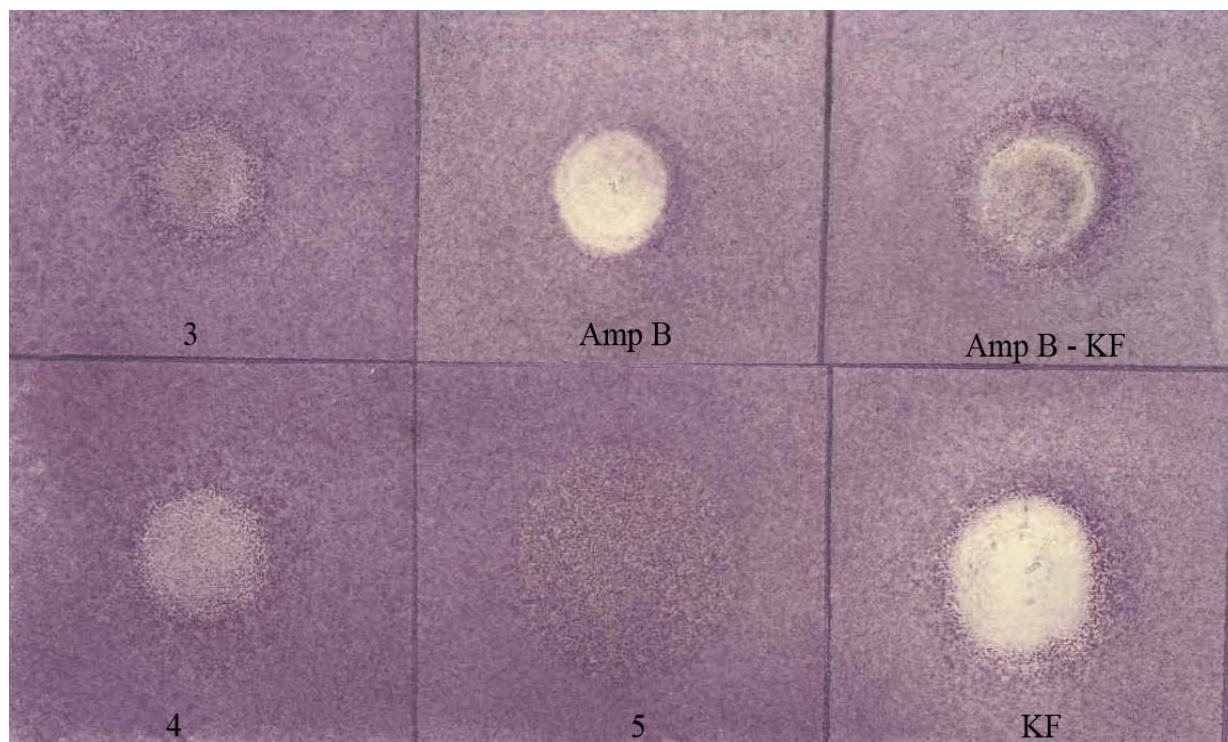




Bioautography plate of **3**, **4** and **5** against *Fusarium solani* after spraying with MTT.

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

Control : KF: kahalalide F.

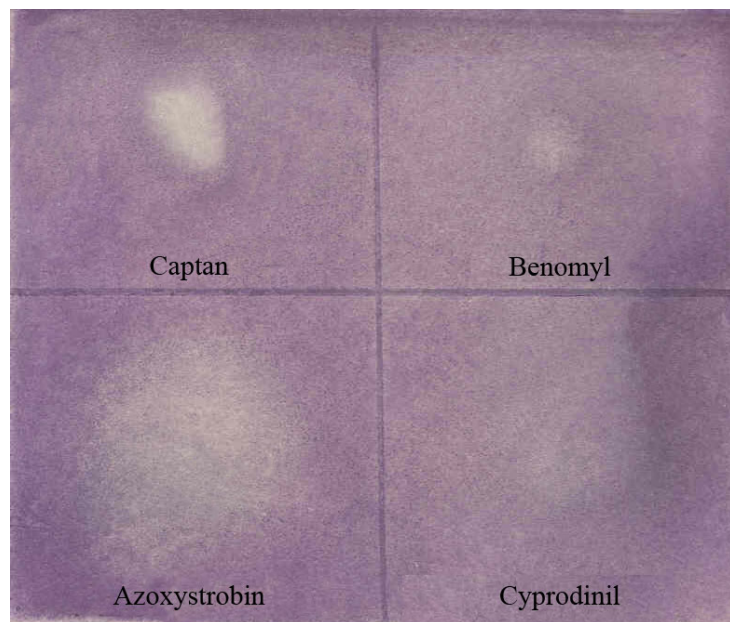
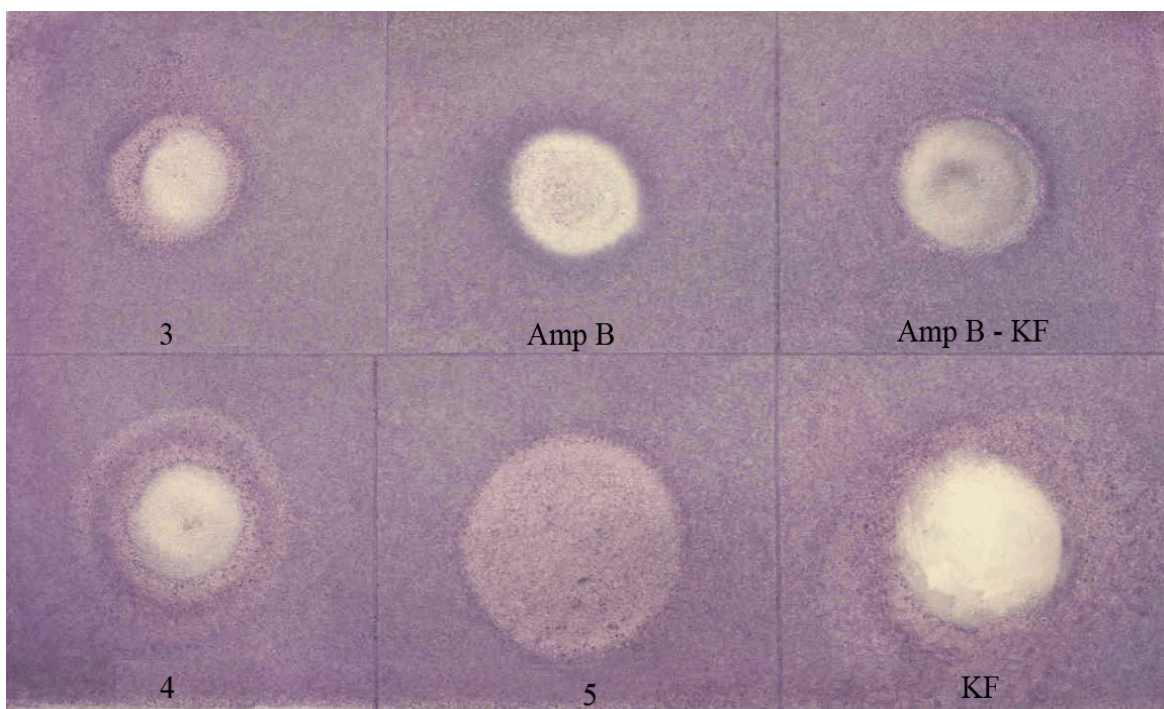


Bioautography plate of **3**, **4** and **5** against *Fusarium oxysporium* after spraying with MTT.

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.