

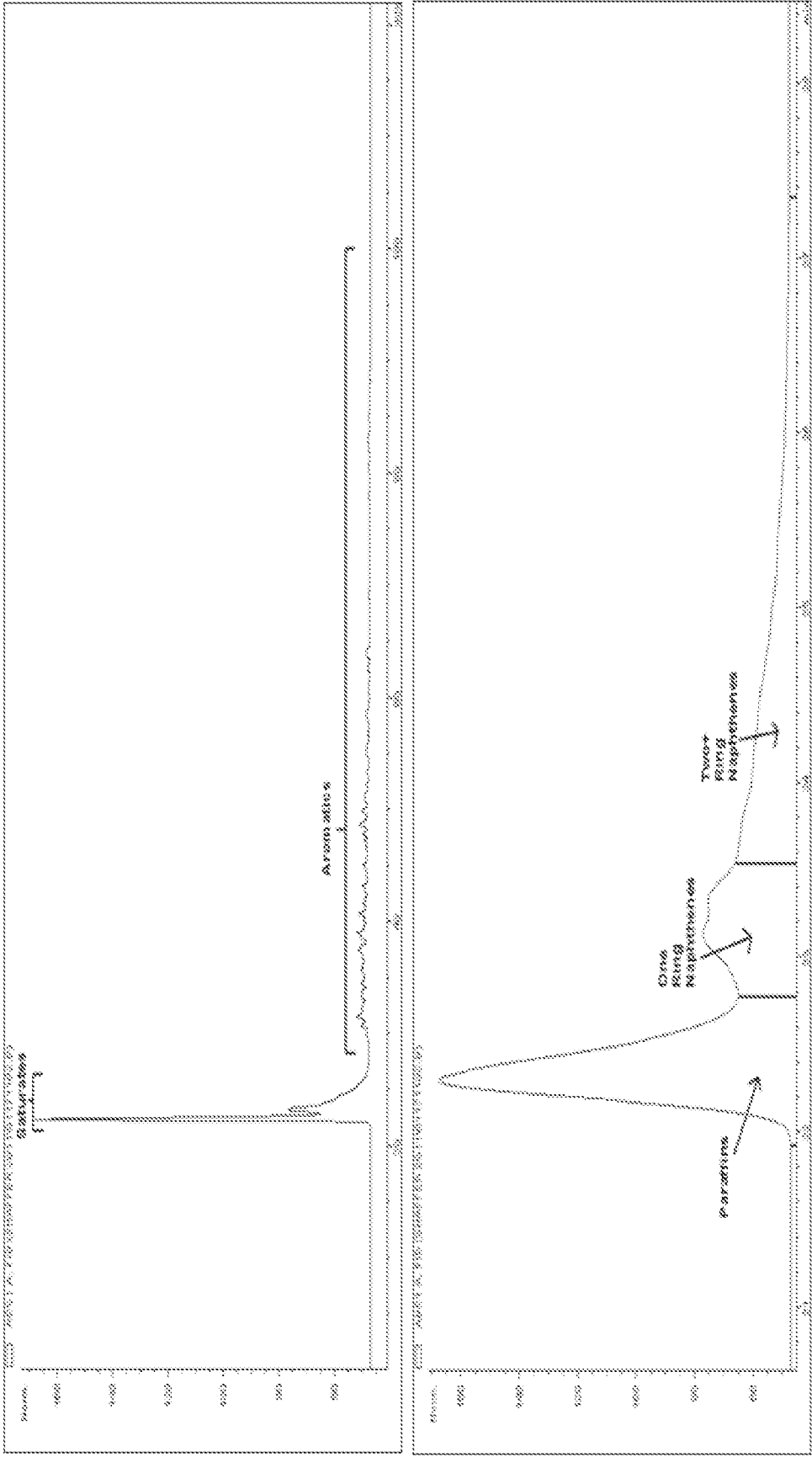


FIG. 1

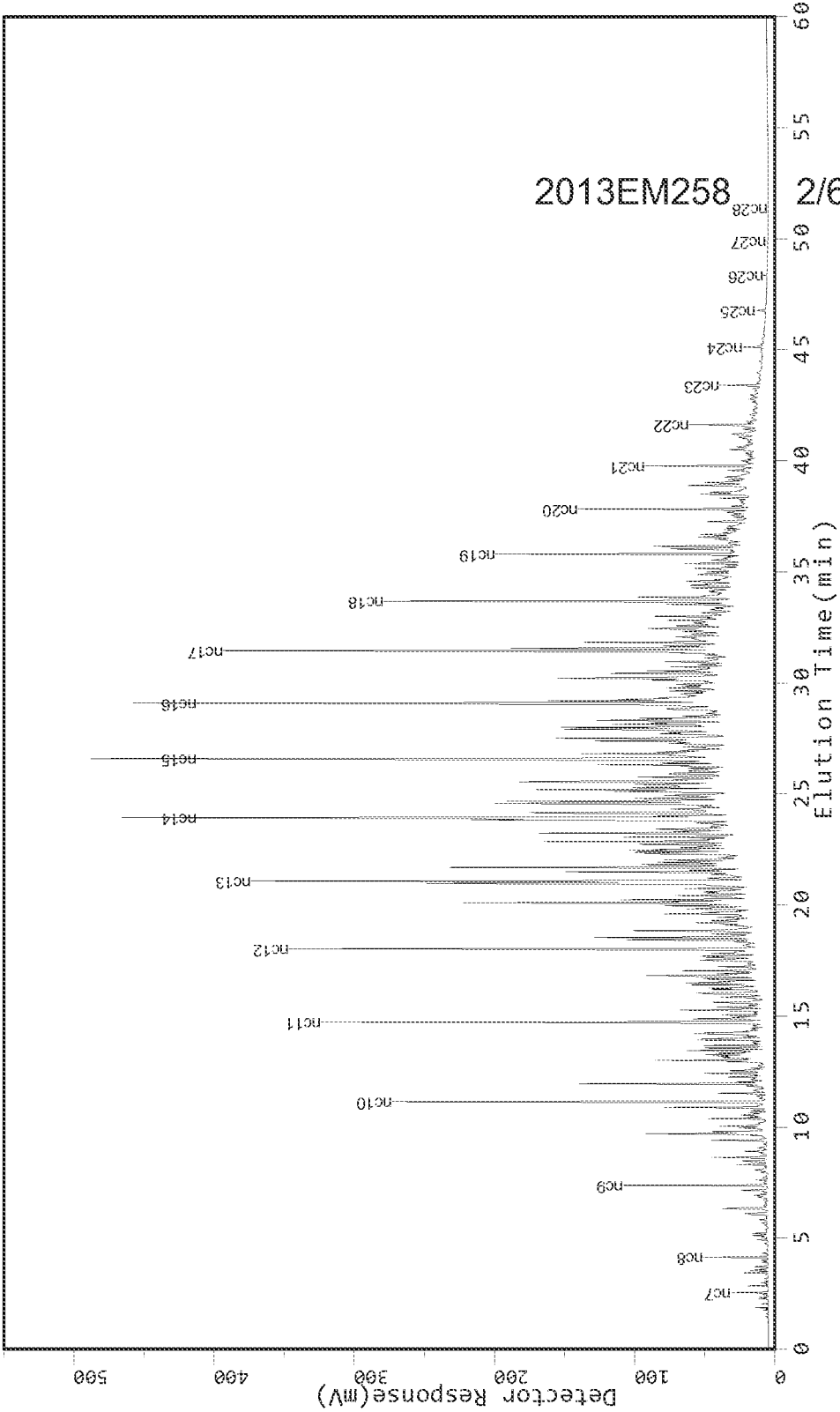


FIG. 2

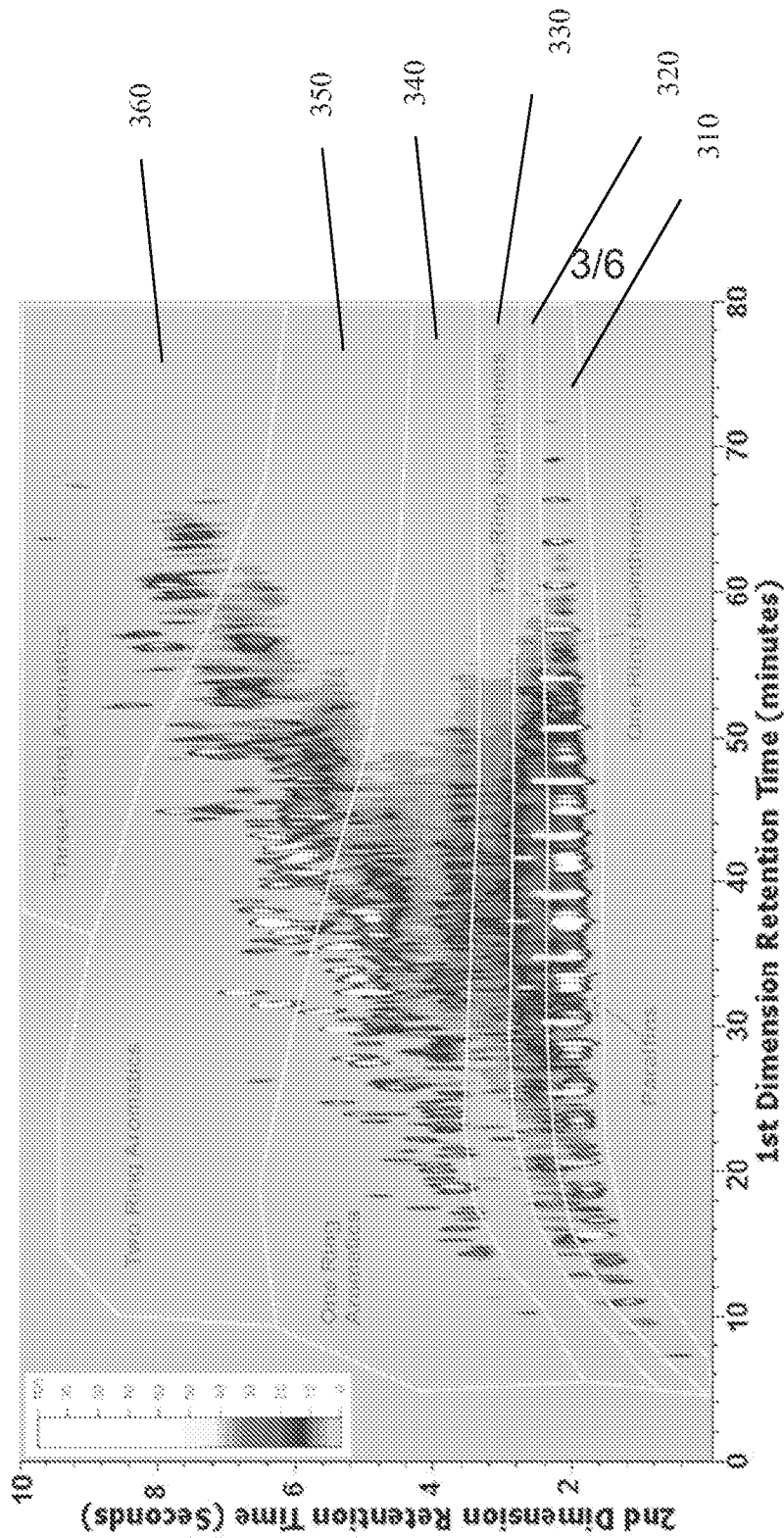


FIG. 3

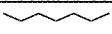
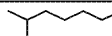
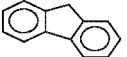
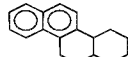
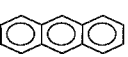
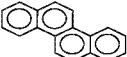
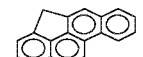
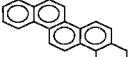
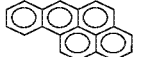
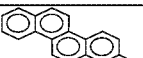
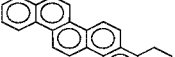
Z	Compound Types	Possible Core Structure(s) and Core Mass		Compound Classes
2	Normal Paraffins			Paraffins
2	Iso Paraffins			
0	1-Ring Naphthenes	 84		Naphthenes
-2	2-Ring Naphthenes	 138		
-4	3-Ring Naphthenes	 192		
-6	Benzenes	 78		1-Ring Aromatics
-8	Indanes/Naphtheno Benzenes	 118	 132	
-10	Dinaphtheno Benzenes	 186		
-12	Naphthalenes	 128		2-Ring Aromatics
-14	Biphenyls/Acenaphthalenes	 154	 154	
-16	Fluorenes/Dinaphtheno naphthalenes	 166	 236	
-18	Phenanthrenes/Anthracenes	 178	 178	3-Ring Aromatics
-20	Acephenanthrenes	 190		
-22	Pyrenes/Fluoranthenes	 202	 202	4-Ring Aromatics
-24	Chrysenes	 228		
-26	Acechrysenes/Naphtheno chrysenes	 240	 282	
-28	Benzopyrenes/Perylenes	 252	 252	5-Ring+ Aromatics
-30	Benzochrysenes	 278		
-32	Naphthenobenzochrysenes	 332		
-34	Dibenzopyrenes	 302		

FIG. 4

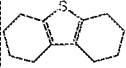
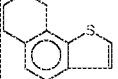
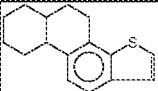
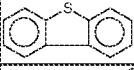
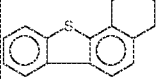
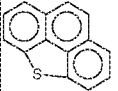
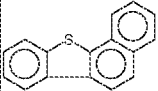
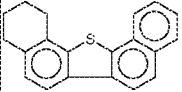
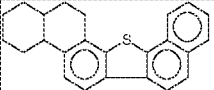
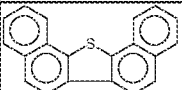
Z	Identification	Possible Core Structure(s) and Core Mass	Compound Classes
+2	sulfide / mercaptan		Aliphatic sulfides
0	cyclic sulfide	 102	Cyclic sulfides
-2	dicyclic sulfide	 156	
-4	thiophenes	 84	1-Ring Aromatic Sulfurs
-6	benzene thiols	 110	
-8	dinaphthenothiophenes	 192	
-10	benzothiophenes (BTs)	 134	2-Ring Aromatic Sulfurs
-12	naphtheno BTs	 188	
-14	dinaphtheno BTs	 242	
-16	dibenzothiophenes (DBTs)	 184	3-Ring Aromatic Sulfurs
-18	naphtheno DBTs	 238	
-20	bay-S phenanthrenes	 208	
-22	benzo DBTs	 234	4-Ring Aromatic Sulfurs
-24	naphtheno benzo DBTs	 288	
-26	dinaphtheno benzo DBTs	 342	
-28	dibenzo DBT	 284	5-Ring+ Aromatic Sulfurs

FIG. 5

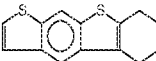
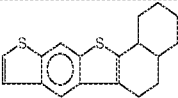
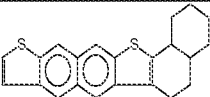
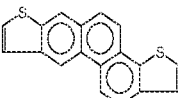
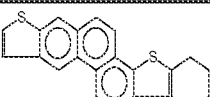
Z	Identifications	Possible Core Structures and Core Mass	Compound Class
-14	dithiophenobenzenes (DTBs)	 190	3-Ring aromatic disulfurs
-16	naphtheno DTBs	 244	
-18	dinaphtheno DTBs	 298	
-20	dithiophenonaphthalenes (DTNs)	 240	4-Ring aromatic disulfurs
-22	naphtheno DTNs	 294	
-24	dinaphtheno DTNs	 348	
-26	dithiophenophenanthrenes (DTPs)	 290	5-Ring+ aromatic disulfurs
-28	naphtheno DTPs	 344	

FIG. 6