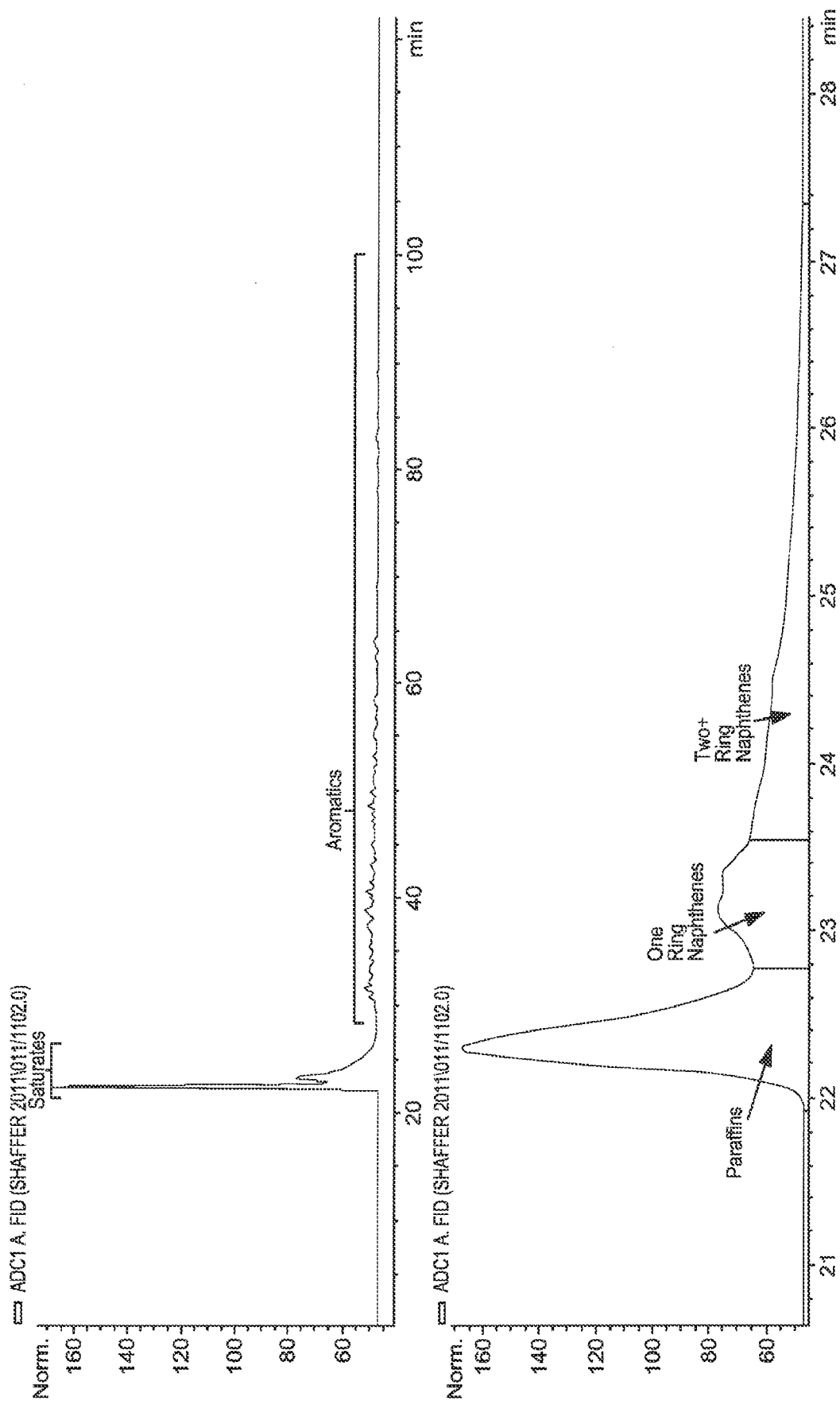


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**FIG. 1**

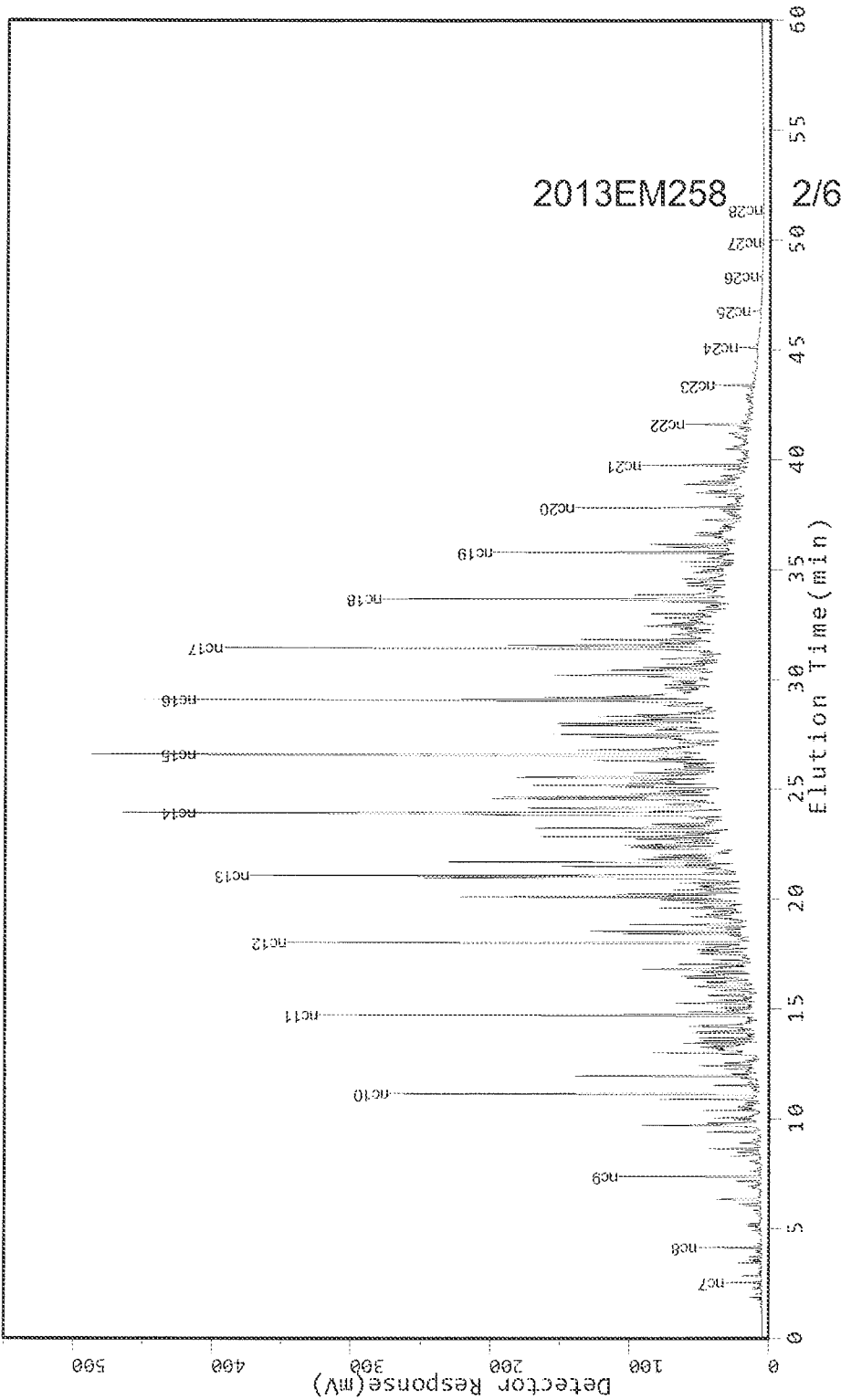


FIG. 2

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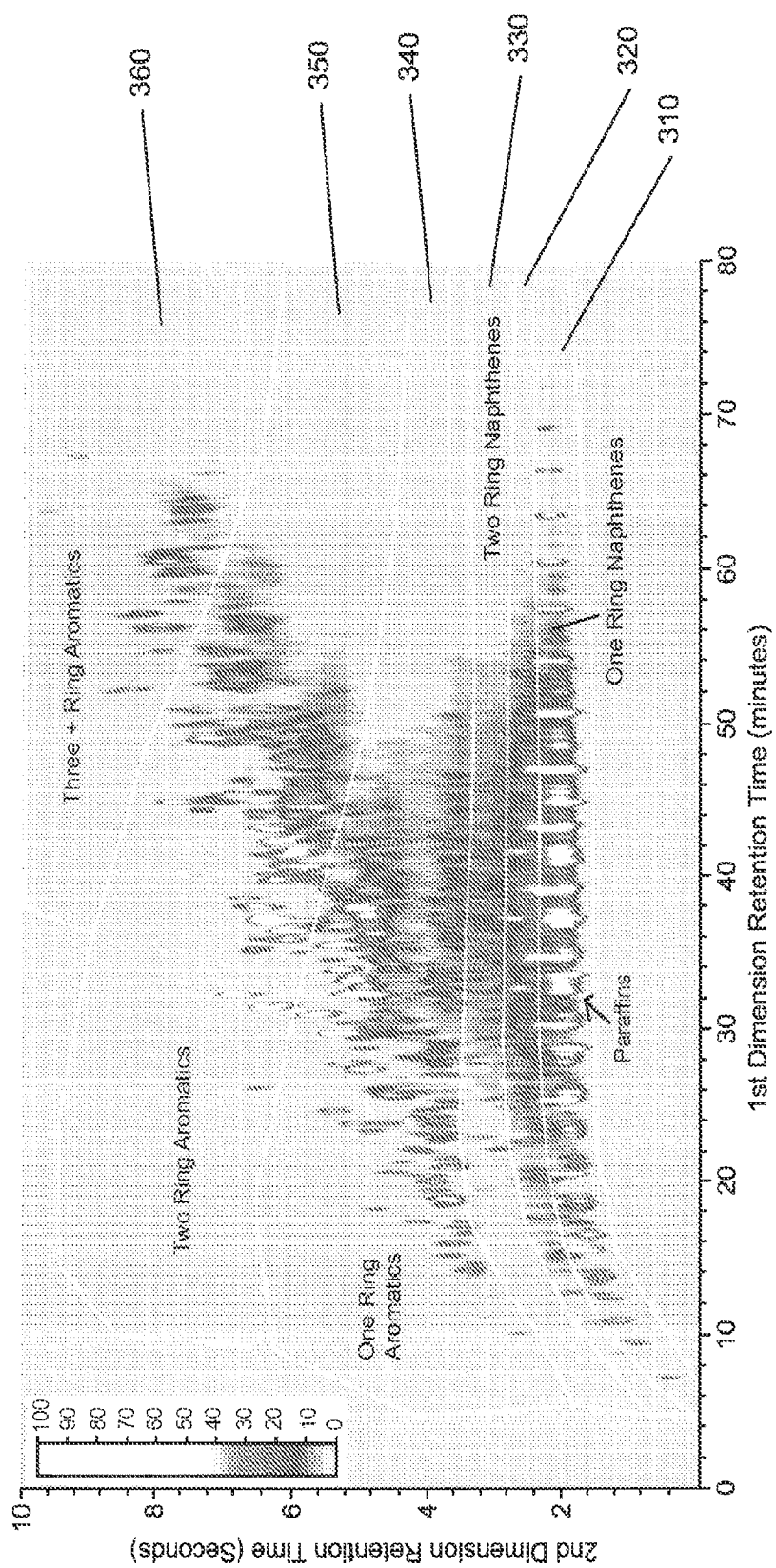


FIG. 3

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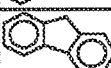
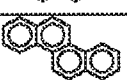
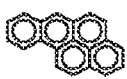
z	Compound Types	Possible Core Structure(s) and Core Mass		Compound Classes
2	Normal Paraffins			Paraffins
2	Iso Paraffins			
0	1-Ring Naphthenes		84	Naphthenes
-2	2-Ring Naphthenes		138	
-4	3-Ring Naphthenes		192	
-6	Benzenes		78	1-Ring Aromatics
-8	Indanes/Naphtheno Benzenes		118	
-10	Dinaphtheno Benzenes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

FIG. 4

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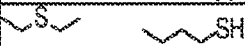
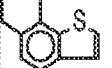
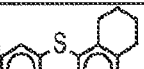
z	Identification	Possible Core Structure(s) and Core Mass	Compound Classes
+2	sulfide/mercaptan		Aliphatic sulfides
0	cyclic sulfide	 102	Cyclic sulfides
-2	dicyclic sulfide	 156	
-4	thiophenes	 84	1-Ring Aromatic Sulfurs
		 110	
-6	benzene thiols		
-8	dinaphthenothiophenes	 192	2-Ring Aromatic Sulfurs
-10	benzothiophenes (BTs)	 134	
-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

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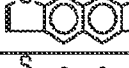
z	Identifications	Possible Core Structure(s) and Core Mass	Compound Classes
-14	dithiophenobenzenes (DTBs)	 190	3-Ring Aromatic Disulfurs
-16	naphtheno DTBs	 244	
-18	dinaphtheno DTBs	 298	
-20	dithiophenonaphthalenes (DTNs)	 240	4-Ring Aromatic Disulfurs
-22	naphtheno DTNs	 294	
-24	dinaphtheno DTNs	 348	
-26	dithiophenophenanthrenes (DTPs)	 290	5-Ring+ Aromatic Disulfurs
-28	naphtheno DTPs	 344	

FIG. 6