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	Pt/Pd	Pt (wt %)	Pd (wt %)	g Pt	moles Pt	g Pt solution	moles Pd	g Pd solution	moles Pd+Pt
	ratio								
6a	1:0	0.80	0	0.16	0.00082	0.319	0	0	0.000820
6b	0:1	0	0.4365	0	0.00000	0.000	0.00082	1.027	0.000820
6c	1:1	0.40	0.2183	0.08	0.00041	0.160	0.00041	0.514	0.000820
6d	3:1	0.601	0.1085	0.1202	0.00062	0.240	0.00020	0.255	0.000820
6e	5:1	0.667	0.073	0.1334	0.00068	0.266	0.00014	0.172	0.000821
6f	1:3	0.199	0.328	0.0398	0.00020	0.079	0.00062	0.772	0.000820
6g	1:5	0.127	0.368	0.0254	0.00013	0.051	0.00069	0.866	0.000822
6h	2:1	0.53	0.145	0.1068	0.00055	0.213	0.00027	0.341	0.000820
6i	1:2	0.27	0.29	0.054	0.00028	0.108	0.00055	0.682	0.000822

FIG. 1

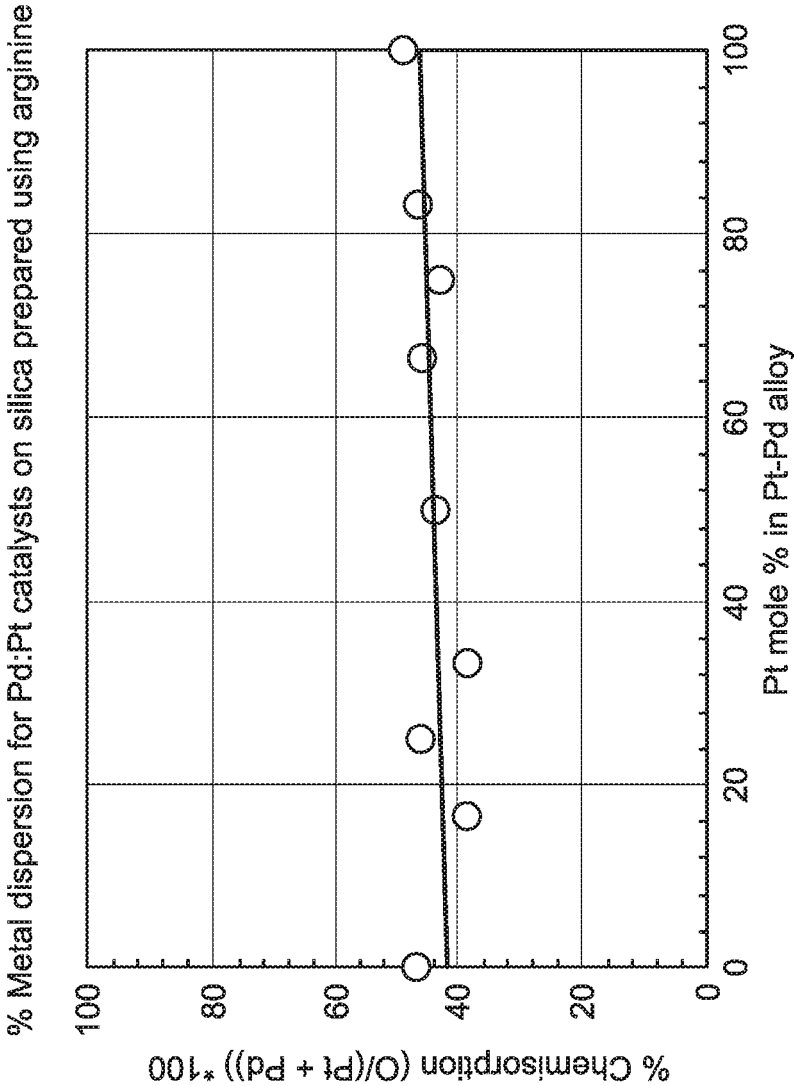


FIG. 2

Particle size (D_{sv} in Angstroms) of Pt-Pd crystallites estimated from chemisorption measurements

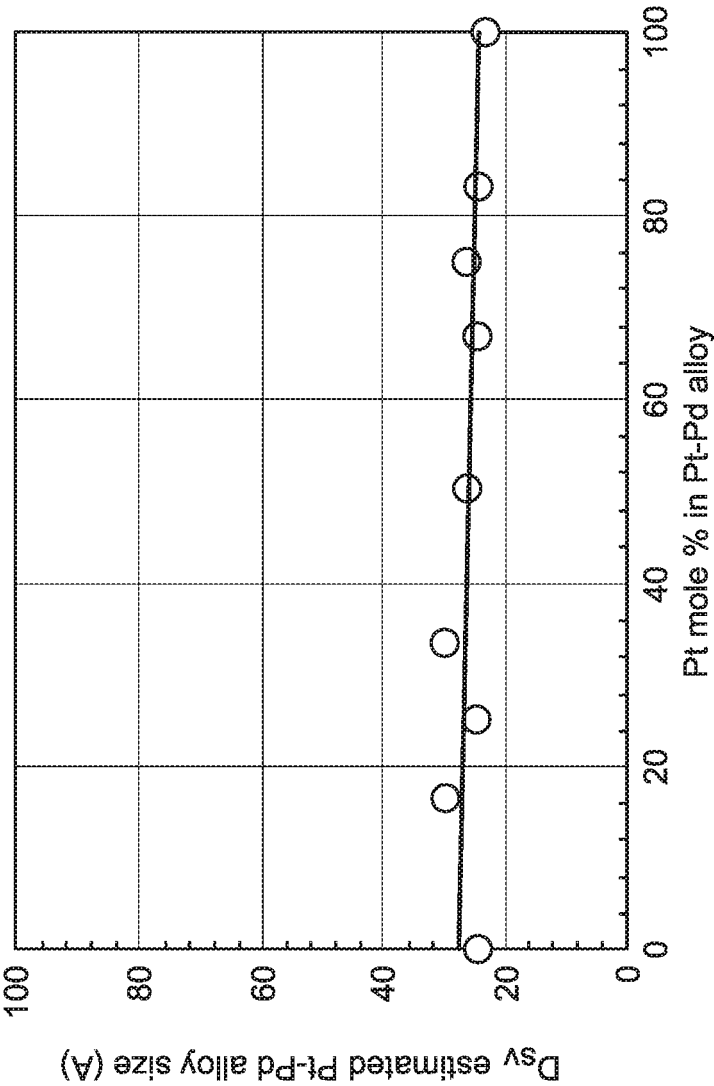
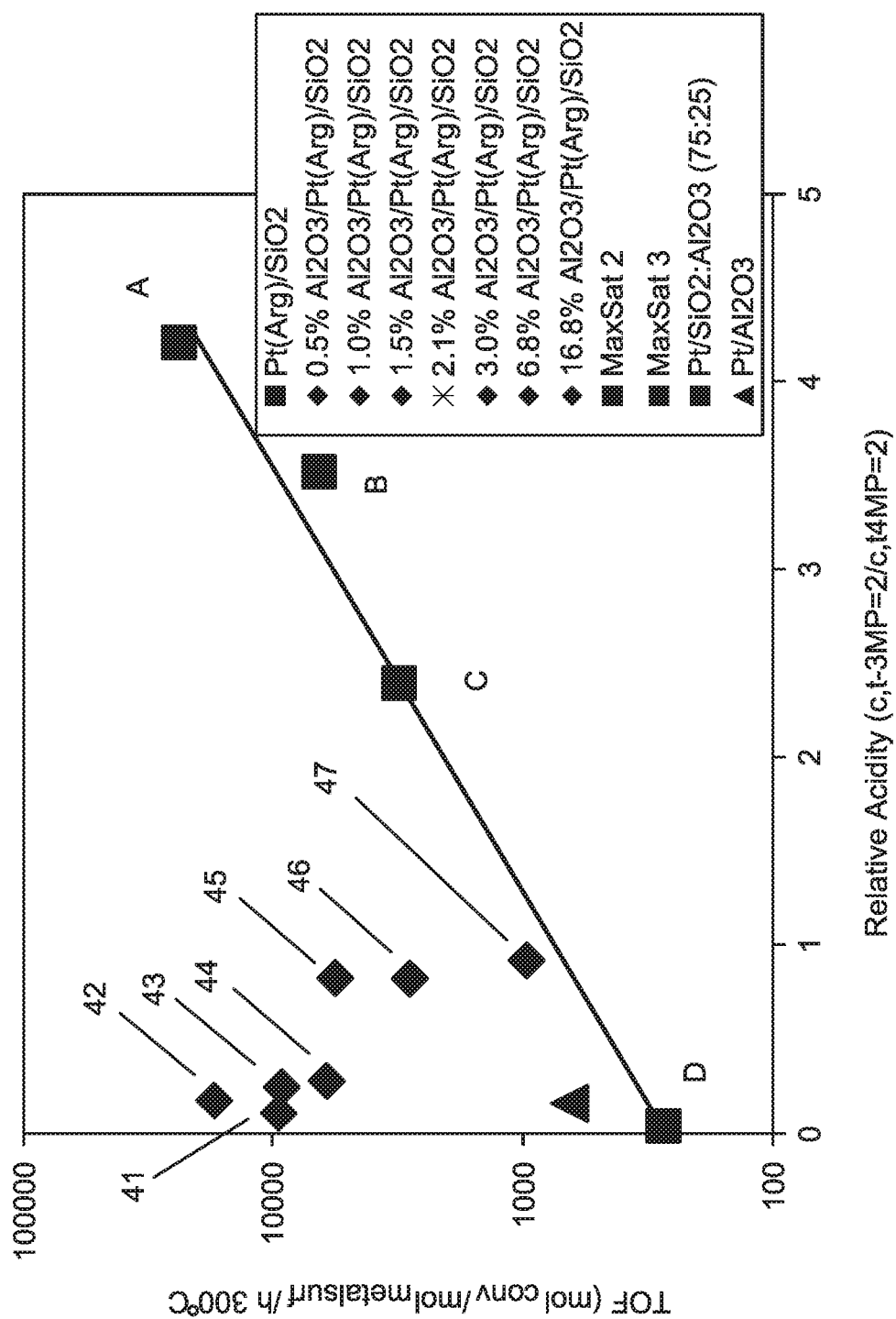


FIG. 3

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**FIG. 4**

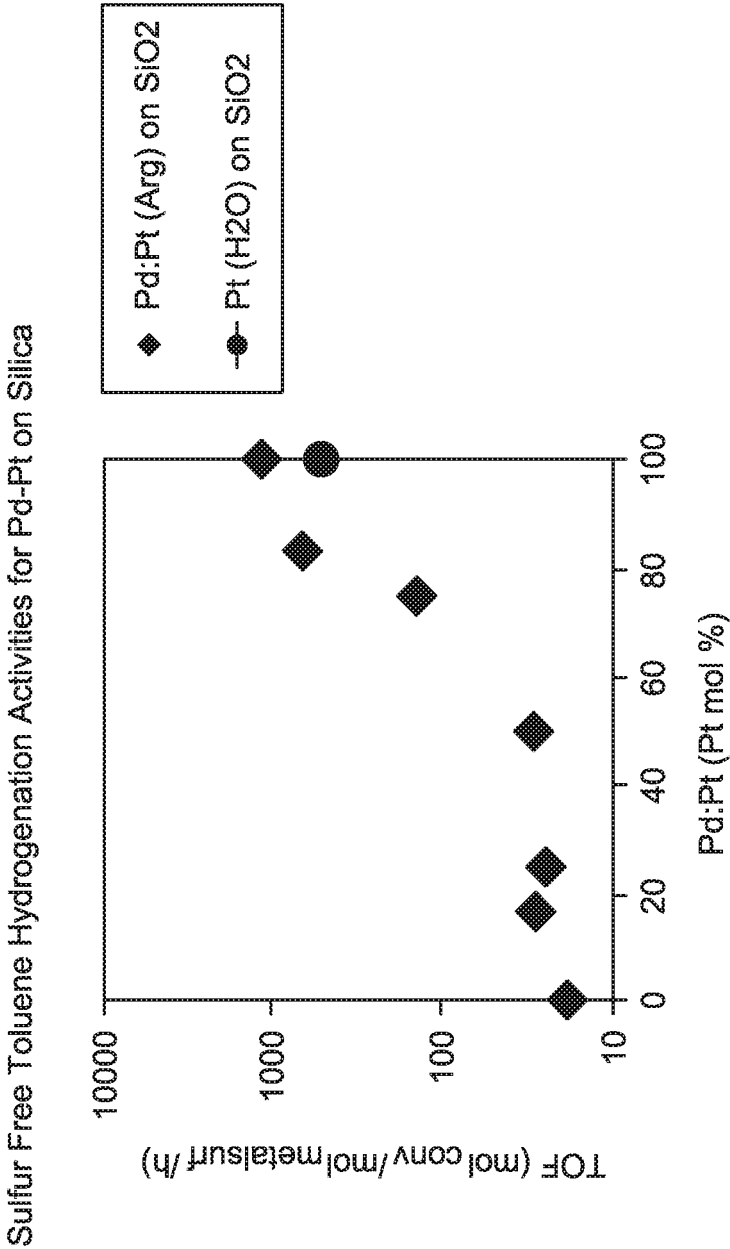


FIG. 5

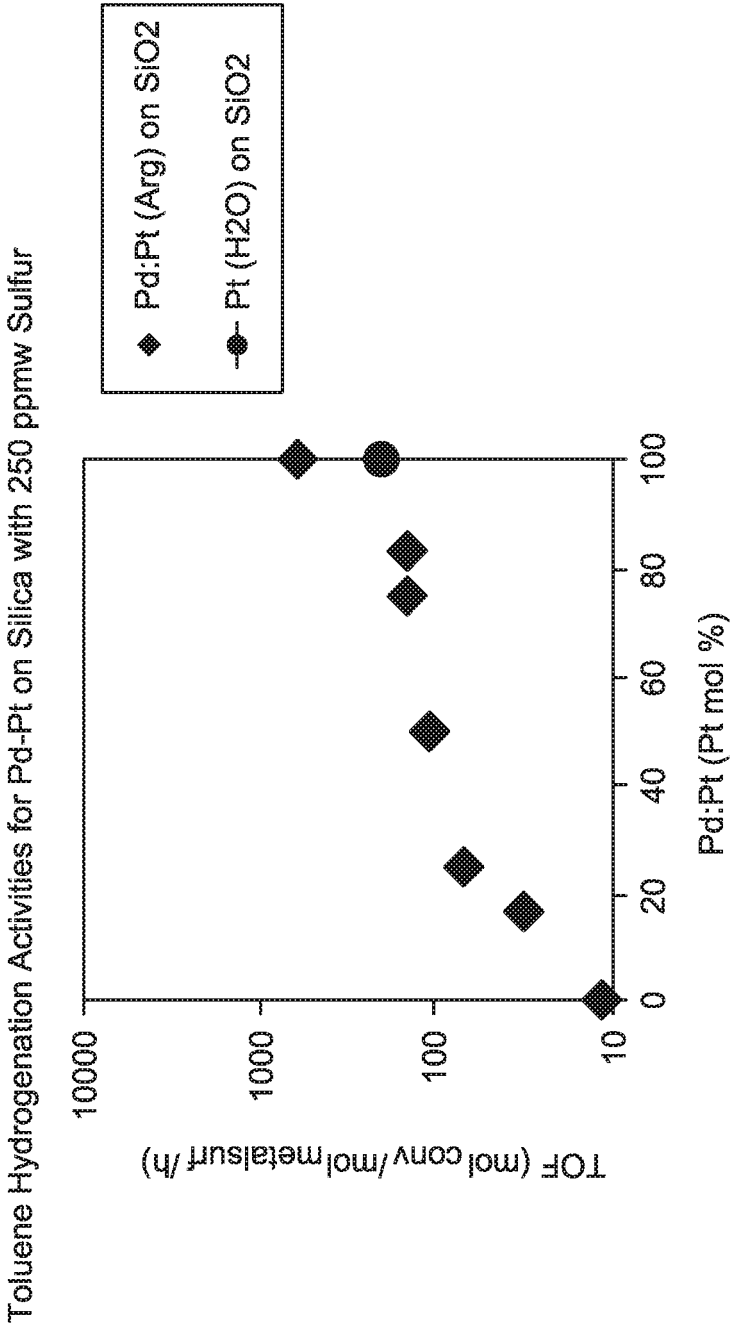


FIG. 6

Activity per Pt site for Toluene Hydrogenation with a Sulfur-free feed

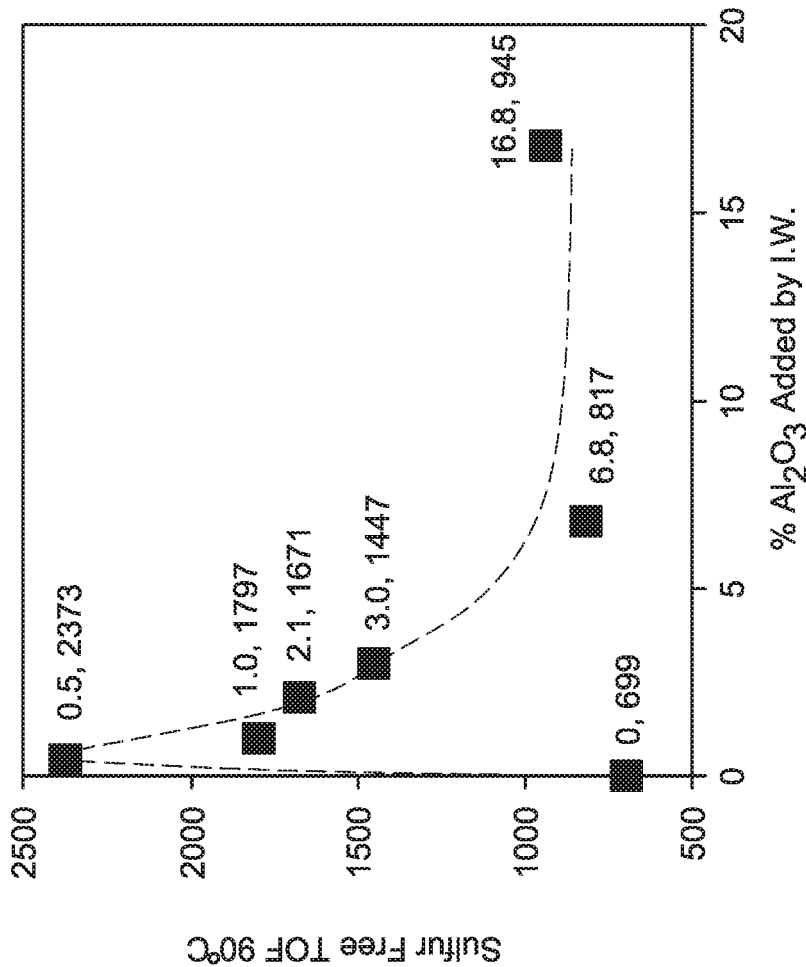
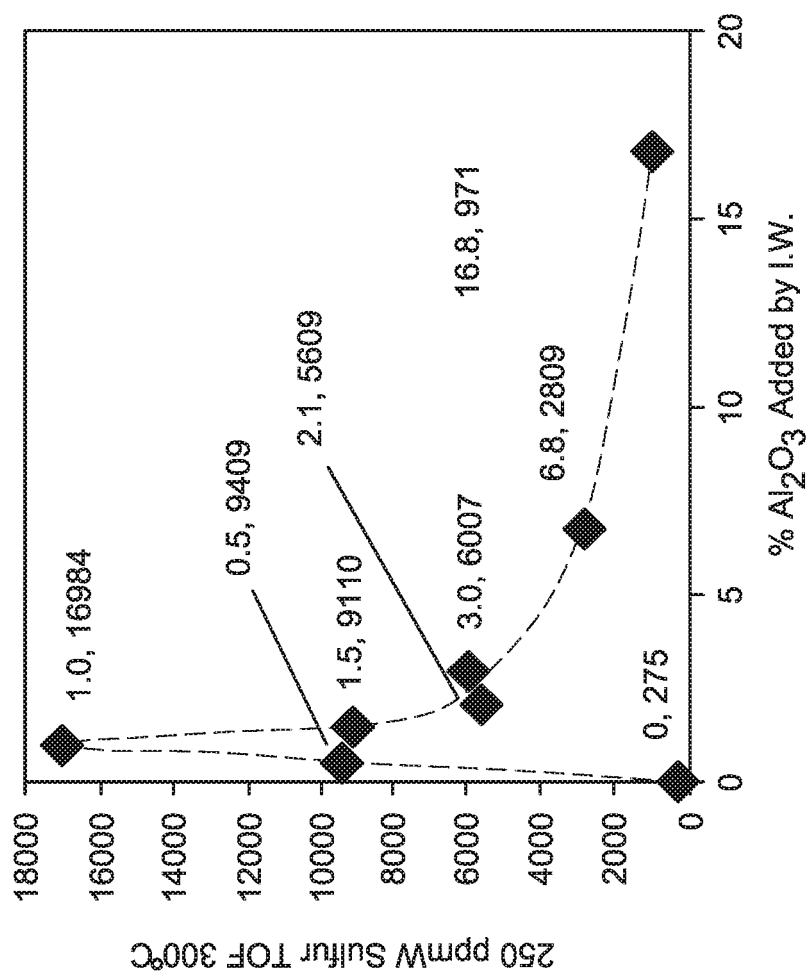


FIG. 7

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Activity per Pt site for Toluene Hydrogenation with a Sulfur-containing feed

**FIG. 8**

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Example #	Catalyst Description	Temp (°C)	Rate	TOF
			mol/mol cat /h	mol/mol cat surf/h
2	Pt(Arg)/SiO ₂ Arginine prep.	300	306	585
3a	1.0% Al ₂ O ₃ IW/Pt(Arg) (Al added to Pt/Si)	300	6895	16984
3b	2.1% Al ₂ O ₃ IW/Pt(Arg) (Al added to Pt/Si)	300	2429	5609
3b-R	Pt(Arg)/2.1% Al ₂ O ₃ IW/Pt(Arg) (Pt added to Al/Si)	300	5568	16140
5f	Pt(Arg)/1% Al ₂ O ₃ IW/Pt(Arg) (Pt added to Al/Si)	300	5621	16729
7	(1% Al ₂ O ₃ + Pt(Arg)(8:1 to mols Pt)) on SiO ₂ coimpregnation	300	3544	12479

FIG. 9

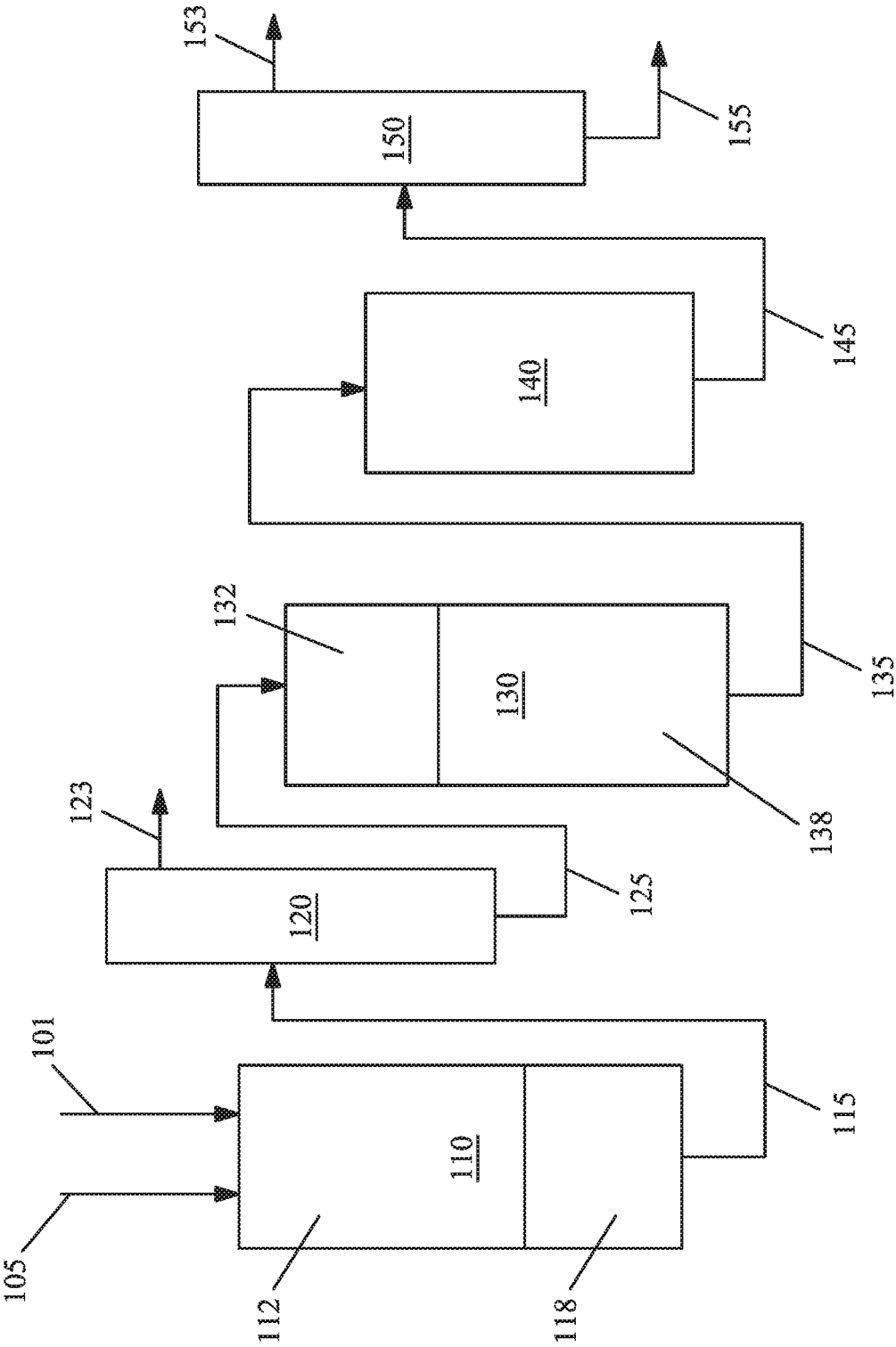
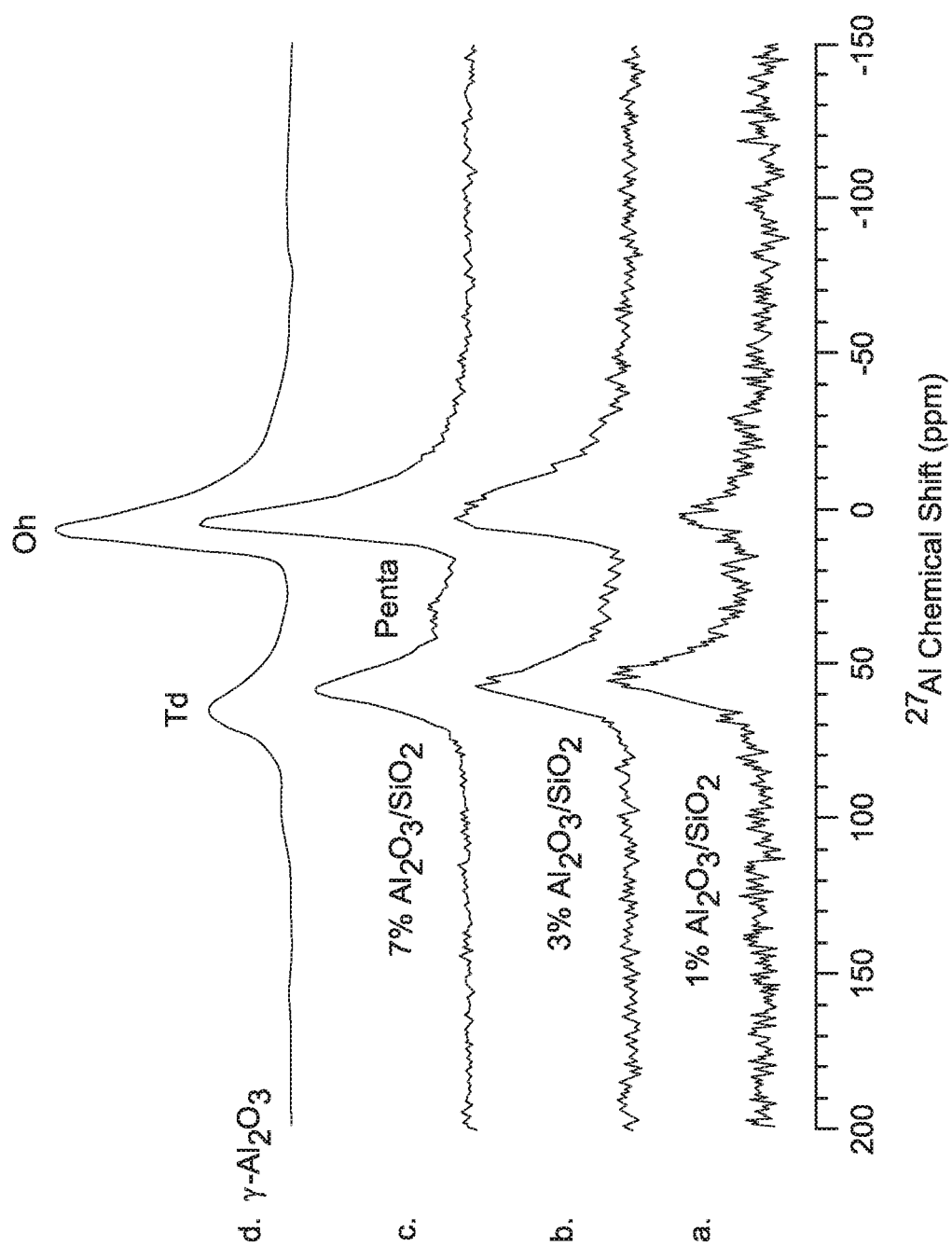


FIG. 10

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**FIG. 11**

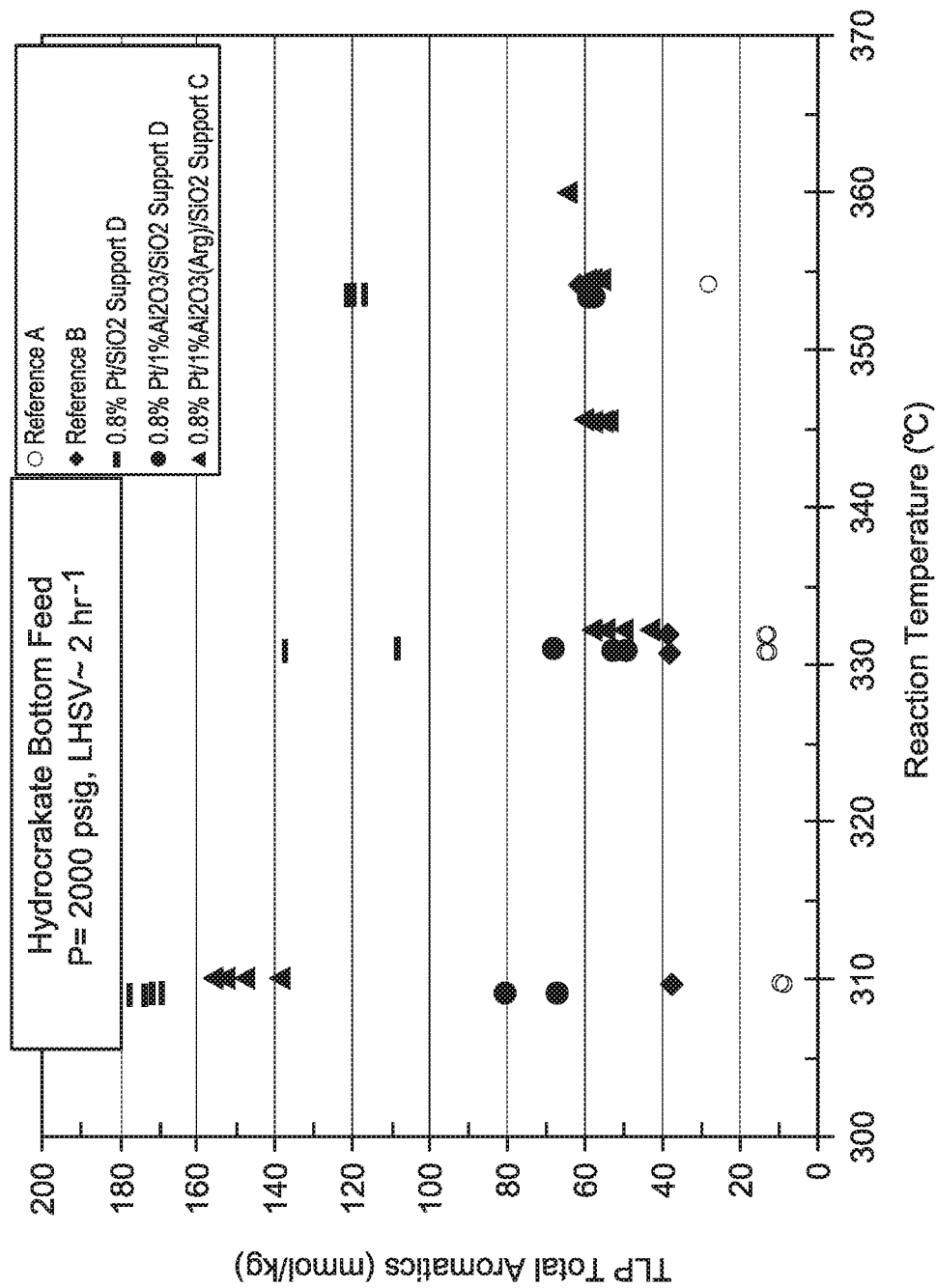


FIG. 12

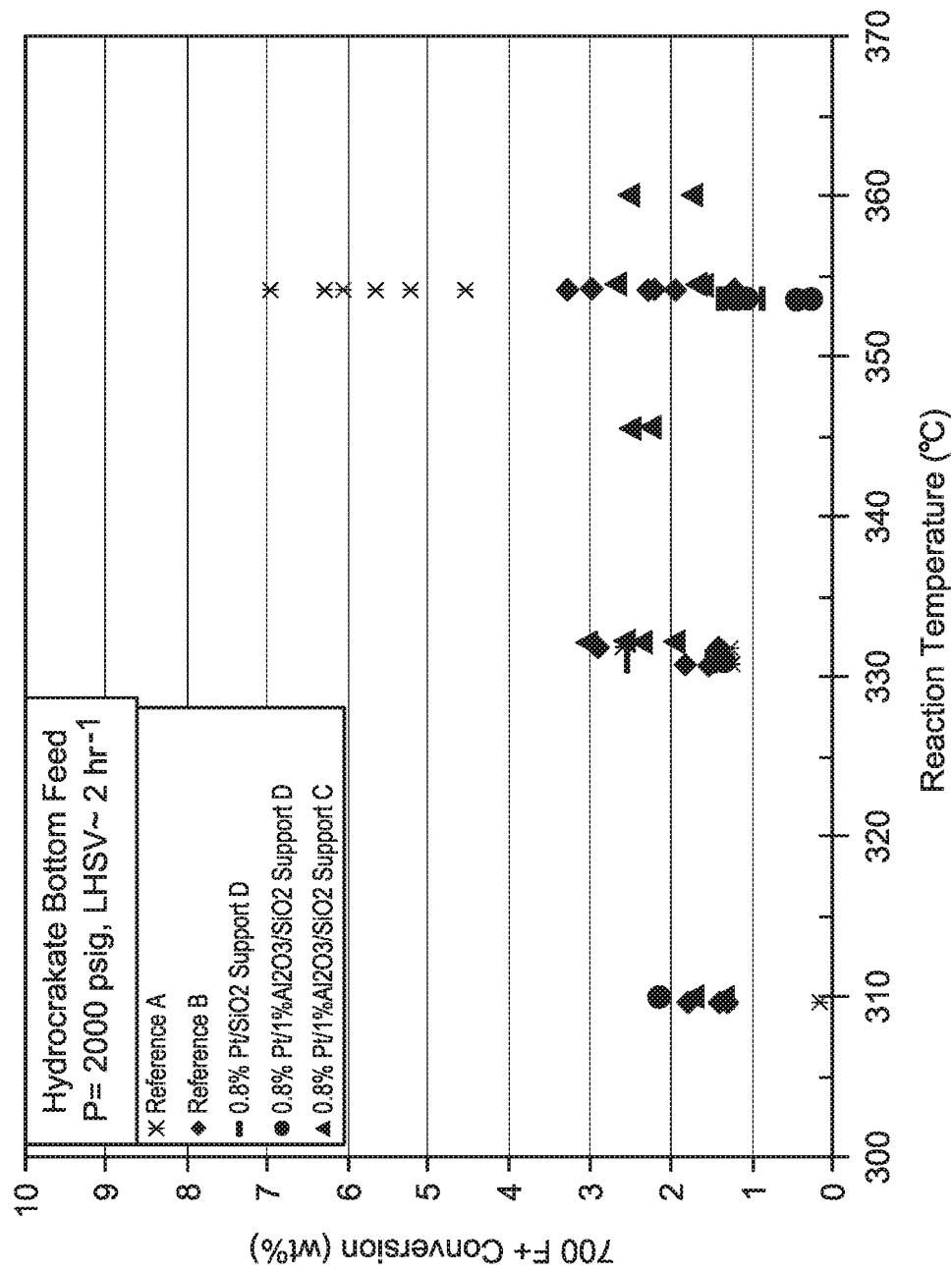


FIG. 13