

TABLE 2
Cracking of n-hexane ($\tau = 3$ hours)

No. Exp.	Quantity of n-hexane, g	Temp. °C	P, atm.	Yield of liquid products	Including			Gas and liquid products with b.pt < 48°C (by difference)	n_D^{20} res.	$\frac{> C_6}{< C_6}$
					fr. 48-66°	fr. 66-69°	residue			
in % on feed *										
a) Thermal (under n-hexane pressure)										
52	25.2	430	280-500	40.0	1.7	11.3				
53	30.6	430	420-700	54.3	2.4	20.0	26.3	51.3	1.4680	0.51
51	32.0	430	400-750	55.2	3.7	17.3	28.7	50.3	1.4608	0.57
45	40.0	430	750-980	71.8	2.5	32.4	29.4	35.7	1.4300	0.82
54	44.8	430	1520-1850	80.0	1.6	39.4	31.8	27.2	1.4335	1.17
35	24.0	420	140-180	78.5	3.2	52.9	16.9	27.0	1.4280	0.63
61	40.05	420	800-920	89.7	2.2	68.5	15.8	13.5	1.4150	1.17
b) Under hydrogen pressure										
57	40.0	420	380	89.7	0.9	71.7	6.7	20.7	1.3865	
58	40.0	420	560	89.8	1.5	71.9	6.1	20.5	1.3839	
56	40.0	420	900	85.3	1.6	68.2	6.3	23.9	1.3809	
55	40.0	420	1230	83.3	1.4	68.0	6.0	24.6	1.3795	
c) Catalytic, under hydrogen pressure **										
67	40.0	415	200	74.7	10.3	42.0	8.0	39.7	1.4000	
64	40.0	415	380	76.5	13.1	41.9	7.7	37.3	1.3887	
66	40.0	415	890	59.8	13.6	24.9	6.6	54.9	1.3850	
65	40.0	415	1380	48.2	10.3	21.8	6.4	61.5	1.3802	

* Allowing for a loss of 2 g when filling the reactors.

** In the presence of 30% wt of aluminosilicate catalyst.

*** > C₆ fraction with b.pt above 69°C; < C₆ products with b.pt lower than 48°C.

These results allow of the following conclusions.