Benzene Pyrolysis Runs

Job # 3659

Columns: 2 (1 meter 25% Apiezon grease L on Chromsorb W 1-#117 2-#118

Components listed in order of elution

	ØØ	O	m	p	A	B	C_1	C	D	D_1
65A	87.7	1.5	6.3	3.3	.2	.2	.05	.3	.3	.04
65B	89.1	.8	6.1	3.2	.3	.2	.02	.3	.1	.02
66A	82.5	1.2	10.1	5.2	.2	.2	.03	.2	.2	.03
66B	80.9	1.2	10.2	6.7	.2	.1	.04	.3	.3	.03
70B	88.1	1.5	6.1	3.1	.3	.3	.1	.3	.3	.05

terphenyls

11-28-60
HY

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Bz Pyrolysis

3.10.60

Concentration (Wt. %)

Sample	Biphenyl	o-terphenyl	m-terphenyl	p-terphenyl	High Boilers A	High Boilers B
Run 10 in Bz	96.8	0.6	1.6	1.0	—	—
Run 11 in Bz	96.6	0.6	1.8	1.0	—	—
Run 12 in Bz	90.7	1.3	4.6	3.2	0.11	0.1
Run 13 in Bz	90.1	1.4	5.0	3.2	0.15	0.16
Run 14 in Bz	90.5	1.4	5.1	2.7	0.17	0.10
Run 15 in Bz	91.6	1.1	4.5	2.5	0.10	0.16
Run 16 in Bz	89.7	1.6	5.2	3.2	0.18	0.09
Run 17 in Bz	91.0	1.3	4.5	3.0	0.07	0.10
Run 19 in Bz	91.5	1.3	4.3	2.7	0.13	0.10
Run 20 in Bz	94.5	0.8	2.8	1.8	0.08	—
Run 21 in Bz	94.4	0.9	2.9	1.8	—	0.02
Run 22 in Bz	95.0	0.8	2.6	1.6	0.05	—
Run 23 in Bz	94.0	1.0	2.9	2.0	0.11	—
Run 24 in Bz	96.5	0.6	1.9	1.0	—	—
Run 25 in Bz	95.3	0.9	2.4	1.4	0.05	—
Run 26 in Bz	96.5	0.5	2.0	1.0	—	—
Run 27 in Bz	96.4	0.5	1.9	1.2	—	—
Run 28 in Bz	87.2	1.7	6.7	4.0	0.23	0.11
Run 28 in Bz	86.3	1.8	7.5	4.0	0.22	0.22
Run 29 in Bz	92.7	1.1	3.7	2.4	0.07	—

0067867

TOWOLDMON0056703

Bz Pyrolysis

3.10.60

Concentration (Wt. %)

Sample	Ø-Ø	o-terphenyl	m-terphenyl	p-terphenyl	A High Boiler	B High Boiler
Run 26 in Bz	96.5	0.5	2.0	1.0	—	—
Run 24 in Bz	96.5	0.6	1.9	1.0	—	—
Run 11 in Bz	96.6	0.6	1.8	1.0	—	—
Run 15 in Bz	91.6	1.1	4.5	2.5	0.10	0.16
Run 20 in Bz	94.5	0.8	2.8	1.8	0.08	—
Run 22 in Bz	95.0	0.8	2.6	1.6	0.05	—
Run 28 in Bz	86.3	1.8	7.5	4.0	0.22	0.22
Run 16 in Bz	89.7	1.6	3.2	3.2	0.18	0.09
Run 14 in Bz	90.5	1.4	5.1	2.7	0.17	0.10
Run 21 in Bz	94.4	0.9	2.9	1.8	—	0.02
Run 13 in Bz	90.1	1.4	5.0	3.2	0.15	0.16
Run 23 in Bz	94.0	1.0	2.9	2.0	0.11	—
Run 27 in Bz	96.4	0.5	1.9	1.2	—	—
Run 19 in Bz	91.5	1.3	4.3	2.7	0.13	0.10
Run 17 in Bz	91.0	1.3	4.5	3.0	0.07	0.10
Run 10 in Bz	96.8	0.6	1.6	1.0	—	—
Run 28 in Bz	87.2	1.7	6.7	4.0	0.23	0.18
Run 29 in Bz	92.7	1.1	3.7	2.4	0.07	—
Run 12 in Bz	90.7	1.3	4.6	3.2	0.11	0.1
Run 25 in Bz	95.3	0.9	2.4	1.4	0.05	—

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TOWOLDMON0056704

Biphenyls

8-26-60

Corrected peak area % ≃ Wt. %

N.D. = Not Determined

Sample	Components (listed in order of elution). L.B.①	L.B.②	L.B.③	ΦΦ	L.B.④	L.B.⑤	L.B.⑥	L.B.⑦	L.B.⑧	Terphenyls o	m	p	H.B.①	H.B.②	H.B.③	H.B.④
70-A	N.D.	N.D.	N.D.	88.1	—	—	—	—	—	1.8	6.2	3.8	—	—	0.1	—
69	"	"	"	86.8	—	—	—	—	—	1.9	6.5	4.2	0.4	0.2	—	—
68	"	"	"	87.7	—	—	—	—	—	1.7	6.7	2.9	—	—	—	—
67-B	"	"	"	86.9	10.0	0.1	0.5	0.1	—	0.6	1.5	0.3	—	—	—	—
67-A	"	"	"	88.7	9.3	0.1	0.3	0.06	—	0.3	0.9	0.3	—	—	—	—
66-B	"	"	"	89.0	N.D.	N.D.	N.D.	N.D.	—	1.6	6.0	3.0	0.2	0.2	—	—
66-A	"	"	"	85.8	0.08	—	0.06	—	—	2.0	7.6	3.9	0.3	0.3	—	—
65-B	"	"	"	91.7	—	—	—	—	—	1.4	5.6	2.3	—	—	—	—
65-A	"	"	"	85.5	0.06	—	—	—	—	1.8	7.8	4.1	0.3	0.3	0.1	0.05
64	"	"	"	83.6	—	—	—	—	—	2.0	8.9	4.5	0.5	0.5	—	—
"	—	—	—	84.3	—	—	—	—	—	1.8	8.2	4.2	0.3	0.2	0.5	0.5
63-B	0.05	—	0.1	87.0	—	—	—	—	—	1.8	6.8	3.6	0.2	0.1	0.2	0.2
63-A	0.07	0.02	0.08	94.2	—	—	—	—	—	0.8	3.1	1.7	—	—	—	—
62-B	0.07	0.02	0.07	88.6	—	—	—	—	—	[illegible]			0.3	0.2	0.2	0.3
62-A	0.08	0.03	[illegible]										—	—	—	—
61-B	0.09	0.02	[illegible]										0.1	0.1	0.3	0.09
61-A	0.06	0.02	[illegible]										0.1	0.1	[illegible]	
60-B	N.D.	N.D.	N.D.	91.5	—	—	—	—	—	[illegible]			0.2	0.2	0.1	0.1
60-A	0.2	"	"	[illegible]						[illegible]			—	—	—	0.1
63-B	N.D.	N.D.	N.D.	[illegible]						1.9	6.9	3.9	0.2	0.3	0.2	0.2

Pure

Pure

Pure

J. E. Stan

Repeat 65 A + B

70 B

66 A + B

Correct 10% of by-product in 67-B or 67 A

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TOWOLDMON0056705

Job No 3659
Barrostorff

Components listed in order of elution

Sample	ØØ	terphenyls o	m	p	A_1	① A	② B	B_1	C_1	③ C	④ D	D_1	E	F
F-1	87.0	1.7	6.6	3.2		.3	.2		.1	.4	.3	.1		
F-2	92.6	.9	4.0	2.0		.1	.1		.02	.1	.1	.03		
F-3	87.8	1.4	6.4	3.2		.2	.2		.03	.4	.3	.03		
F-4	85.8	1.7	7.4	3.6		.3	.2		.1	.5	.4	.1		
F-5	84.7	1.9	7.8	3.4		.4	.3		.1	.6	.6	.1		
F-6														
F-7	89.0	1.4	5.7	2.8		.2	.4		.03	.3	.2	.02		
F-8	94.2	0.8	3.2	1.6		.1	.1		—	—	—	—		
F-9	91.9	1.1	4.5	2.3		.1	.1		—	—	—	—		
F-10	89.9	1.3	5.3	2.6	.1	.2	.2	.03	.02	.2	.2	.03		
F-11	70.9	2.9	14.2	7.4		.9	.7		.2	1.1	1.3	.2		
F-12	78.8	2.1	10.0	5.2		.6	.4		.1	1.0	1.1	.3	.1	.1
F-13	79.2	2.2	9.7	5.2		.8	.5		.1	.9	.9	0.1	.2	.3
~~F-14~~ 1-V	88.1	1.5	6.1	3.2		.3	.2		.1	.3	.2	.03		
F-15	92.8	0.9	3.9	2.0		.1	.1		.03	.2	.1	—	—	—
F-16	87.8	1.5	6.3	3.2		.4	.2		.04	.3	.3	.03		
F-18	86.2	1.6	6.9	3.6		.5	.3		.04	.5	.4	.04		
F-20	93.9	0.4	3.6	1.8		.2	.2		—	—	—	—		
F-21	93.6	0.8	3.6	1.9		.02	.03		—	.02	—	—		
F-22	91.6	1.2	4.5	2.4		.13	.20		—	.01	.01	—		
F-23	93.8	0.8	3.7	1.6		.03	0.1		—	—	—	—		
F-24	95.6	0.4	2.6	1.3		0.1	.04		—	.02	.01	—		
F-25	90.1	1.3	5.4	2.7		0.2	0.2		.1	.1	.1	—		
F-26	93.1	1.0	3.8	2.0		1.0	0.4		—	.3	.2	—		
F-27	99.2	0.3	0.4	0.2										

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