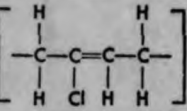
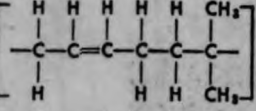
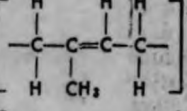
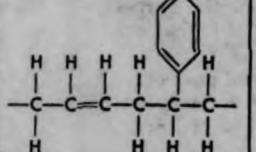


Analysis of a RUBBER MIXTURE

V. A. CIRILLO, The Atlantic Refining Co., Philadelphia, Pa.

Component			Range %	Accuracy %	λ or ν B.L. Pts.	Slit (mm) $\Delta\lambda$ or $\Delta\nu$	Concn. g/ml Length mm
No.	Name	Formula					
1	Neoprene		0-25	± 2.0	8.92	0.79 0.096 μ	Film
2	Butyl		0-25	± 3.0	8.15	0.75 0.097 μ	Film
3	Natural		0-50	± 3.0	11.96	0.90 0.091 μ	Film
4	GR-S		0-50	± 3.0	14.33	1.10 0.110 μ	Film

Instrument: Beckman IR-2, NaCl prism
Sample Phase: Solid rubber

Cell Windows: NaCl plate (film, solvent pumped off)
Absorbance Measurement: Base line X Point

Calculation: Inverse matrix Successive approx.
Graphical

Relative Absorbances^b-Analytical Matrix:

Component/ λ	8.92	8.15	11.96	14.33
1	1.00	0.28	0.39	0.00
2	0.00	1.37	0.00	0.00
3	0.00	0.08	1.40	0.00
4	0.00	0.00	0.00	2.00

Material Purity: 99% pure

Comments: Sample preparation: 1 gram/100 ml. and reflux for 12 hours
Solvent: Xylenes

^a All based on neoprene being selected as unity.

^b Relative absorbances are given as the slope of the Beer's law concentration curves used expressed in terms of absorbance per 100% of constituent.

Determination of C₉-C₁₀ Alkylbenzenes

J. H. HASTINGS and D. E. NICHOLSON
Humble Oil & Refining Co., Baytown, Tex.

CS-120

Component			Range %	Accu- racy %	λ or ν B.L. Pts.	Slit (mm) $\Delta\lambda$ or $\Delta\nu$	Concn. g/liter Length mm
No.	Name	Formula					
1	Indane	C ₉ H ₁₀	0-100	± 0.5	23.96 μ	0.578	1 0.100
2	o-Cymene	C ₁₀ H ₁₄	0-100	± 0.5	29.51 μ	1.089	1 0.100
3	1,3-Diethyl- benzene	C ₁₀ H ₁₄	0-100	± 0.5	22.21 μ	0.484	1 0.100
4	n-Butyl- benzene	C ₁₀ H ₁₄	0-100	± 0.5	19.10 μ	0.314	1 0.100

Instrument: Perkin-Elmer Model 112, CsBr prism
Sample Phase: Solution in carbon tetrachloride

Cell Windows: CsBr
Absorbance Measurement: Base line Point X

Calculation: Inverse matrix Successive approx. X
Graphical

Relative Absorbances-Analytical Matrix:

Component/ λ	23.96 μ	29.51 μ	22.21 μ	19.10 μ
1	2.910	0.029	0.056	0.097
2	0.041	0.256	1.076	0.100
3	0.103	0.030	0.882	0.048
4	0.054	0.041	0.110	0.767

Material Purity: 99.5%

These data represent standard publication and submission is open to anyone in accordance with regulations of ANALYTICAL CHEMISTRY. The Colson Society is acting only as an aid to the journal.

To standardize procedure, ANALYTICAL CHEMISTRY requests that materials be sent in quintuplicate to the chairman of the review committee: D. E. Nicholson, Research and Development Division, Humble Oil & Refining Co., P. O. Box 3950, Baytown, Tex.