

ATTACHMENT XVI

Estimated Production Cost for Ethylene from Ethane by Thermal
Cracking in Tube Stills by the Hauber Method.

(I. G. Leuna report)
June 11, 1941

This estimate is based on a crude ethane having the following composition:

C_2H_6 = 90.0 vol. %
 C_2H_4 = 3.4 vol. %

CH_4 = 1.5 vol. %
 C_3H_8 = 2.5 vol. %
 C_3H_6 = 2.5 vol. %

An ethylene yield of 81.3% (wt.) was assumed from the crude ethane (on the basis of analyses of crude gas and cracked gas) and a yield of 90.7% (wt.) from the recycled 97-98% ethane (estimated). Based on report No. 69 of Dr. Hauber and Dr. Hirschbeck of May 29, 1941 on the cracking of recycled 97.6% ethane, the yield of pure ethylene from recycled 100% ethane, without loss, would be 83.8% (wt.) and, including a 5% loss (as ethane) 79.8% (wt.). A table and two graphs give details of the estimate.