

CATALYTIC LIQUEFACTION OF COAL AND REFINING OF PRODUCTS. Alex G. Oblad, 209 Mineral Sciences Building, University of Utah, Salt Lake City, Utah, 84112.

The catalytic conversion of coal to liquids and hydrocarbon gases is an old art. It was practiced on a large scale in Germany prior to and during World War II. During the preceding years, the technology was largely developed by German scientists and engineers. Development has been active in other nations as well, including the United Kingdom, France, Italy, Poland, and others. The United States' effort goes back to 1936. Modern versions of these older catalytic coal liquefaction processes are in various stages of development. Some improvements have been made in processing steps and catalysts. Catalytic coal liquefaction is difficult, primarily because of numerous restraints such as transport, thermodynamic, kinetic, reactor environment and separation limitations. The present state of the technology and catalyst development will be discussed. An attempt will be made to indicate new process and catalyst possibilities for coal liquefaction.