A Literature Review on Cold Cracking of Petroleum Crude Oil (Paperback)

By United States Department of Energy

Createspace Independent Publishing Platform, United States, 2016. Paperback. Book Condition: New. 279 x 216 mm. Language: English . Brand New Book ***** Print on Demand *****.It is obvious from the literature review and private discussions with experts that application of radiation cracking of larger molecules found in crude oils to make (refine) higher value lighter petroleum products is not new. Radiation in different forms (neutrons, electrons, X-rays, Gamma-rays, etc.) can be delivered to petroleum crude oil with energy that is many orders of magnitude in excess of that required to break large hydrocarbon molecules. Some specific observations from the literature include the following: Radiation research applied to petroleum has been pursued by major oil companies, academia and National Laboratories since the 1950 s. A wide variety of radiation sources have been explored as high energy sources: emitting neutrons, electrons, gammaray, beta particles and fission products. There are a few energy company U.S. patents that provide detailed results comparing yields from radiation processing of crude oil with conventional refined product yields. None of the patents proved commercial because the energy balance was uncertain. Interest in radiation processing of petroleum languished for about 30 years. Most energy companies and refiners disbanded their...

READ ONLINE
[8.33 MB]

DMCA Notice | Terms