POTENTIAL OF FURTHER CONVERSION OF SHORT CONTACT TIME SOLVENT REFINED COALS BASED ON CHEMICAL STRUCTURE. M. Farcasiu. Mobil Research and Development Corporation, Central Research Division, P. O. Box 1025, Princeton, New Jersey 08540.

Chemical structures present in short contact time solvent refined coals are different from the corresponding long contact time liquefaction products. The differences will be presented in a comparative way for both bituminous and subbituminous coals. The short contact time products contain comparatively more hydroaromatic structures and phenolic groups, but are similar in molecular size to the long contact time products. The implication of these structural features on further upgrading of the products and on possible regressive reactions should be considered in connection with choosing the right parameters: temperature, pressure, solvent and catalyst for further processing. A discussion of the thermodynamic constraints due to the chemical structures present in short contact time liquefaction products will be also presented.