

EMPIRICAL MODEL FOR PREDICTION OF VISBREAKING PRODUCT YIELDS

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Prediction of visbreaking conversion and product yields may be carried out using various kinetic models. The kinetic models can be very accurate but they require high amount of input parameters. In fact, the overall amount and diversity of the input parameters can limit the model precision. Therefore, empirical models can become a more suitable tool in many cases. In our study we present our empirical model for prediction of visbreaking product yields from the feedstock input vector at three fixed severity levels. At any process conditions, the yields of all visbreaking fractions are determined by a linear interpolation using the yields, calculated for the fixed severity levels. Verification of the model showed that it could be applied instead of the kinetic models, providing an advantageous combination of simplicity and sufficient prediction accuracy.