

Predictions of slag formation, slag flow behaviour, and slag refractory interactions during pressurised entrained-flow gasification of woody biomass/peat mixtures using FactSage

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Pressurised entrained-flow gasification of woody biomass has the potential to produce high purity syngas for the sustainable synthesis of vital chemicals for industrial, transport, and agricultural purposes. Ash slag formation, flow behaviour and chemical interactions with reactor containment materials are aspects of ash behaviour that can have decisive impacts over the PEFG process. These aspects have been studied from a thermodynamic perspective facilitated by FactSage and Chemsheet. Comparisons with pilot-scale experiments are drawn and interpretations of the results are discussed.