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Theoretical and Experimental Modeling of Thermal-Hydraulic Conditions in Reactor Downcomer Applied to Stratification and Mixing Tasks

The paper overviews the physical phenomena, theoretical explanation and modeling approaches for thermal-hydraulic conditions in the nuclear reactor downcomer as applied to stratification and mixing tasks.

Keywords: reactor pressure vessel, computer model, pressurized thermal shock (PTS), downcomer mixing, flow stratification, validation