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Multiphysics modeling of two-phase film boiling within porous corrosion deposits

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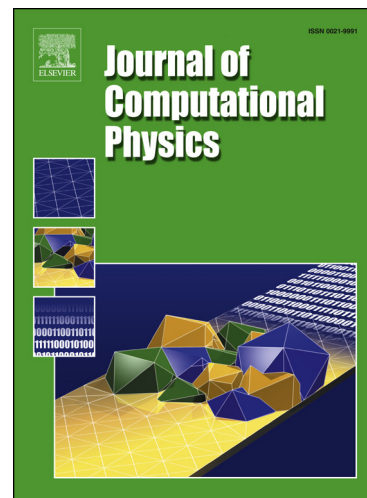
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Highlights

- A two-phase model of CRUD's effects on fuel cladding is developed and improved.
- This model eliminates the formerly erroneous assumption of wick boiling.
- Higher fuel cladding temperatures are predicted when accounting for two-phase flow.
- Double-peaks in thermal conductivity vs. heat flux in experiments are explained.
- A "double dryout" mechanism in CRUD is proposed based on the model and experiments.

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