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Multiphase reactive flow in the capillary fringe

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We present a model for multiphase reactive flow in the capillary fringe including hysteretical effects and phase transfer. The numerical approach is based on a pressure-pressure formulation and cell-centered finite volumes. Operator splitting into three substeps is used to handle the coupled system: i) transport of the two phases ii) transport of the dissolved components and iii) reaction and phase exchange.