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Flow instabilities in open buoyant-thermocapillary pools ULRICH
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The flow structure in open buoyant-thermocapillary pools heated or cooled from
above is investigated numerically. For pools of cylindrical shape and axisymmetric
heat loads with a parabolic profile we carry out a systematic variation of the gov-
erning parameters such as the heating rate, Bond number, and the aspect ratio of
the pool. The flow instability with respect to three-dimensional perturbations is
studied by a detailed analysis of the neutral modes.

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