

Contents

Editorial	1
The mechanics of particle accumulation structures in thermocapillary flows <i>H.C. Kuhlmann and E. Hofmann</i>	3
Particles of different density in thermocapillary liquid bridges under the action of travelling and standing hydrothermal waves <i>D. Schwabe and A.I. Mizev</i>	13
Accumulation of particles in time-dependent thermocapillary flow in a liquid bridge. Modeling of experiments <i>D. Melnikov, D. Pushkin and V. Shevtsova</i>	29
Numerical modelling of three-dimensional thermo- and solutocapillary-induced flows in a floating zone during crystal growth <i>T.P. Lyubimova and R.V. Scuridyn</i>	41
Magnetic stabilization, transition and energy analysis in the Marangoni driven Full-Zone at low Prandtl numbers <i>Y. Huang and B.C. Houchens</i>	47
Liquid entrainment by gas flow along the interface of a liquid bridge <i>Y. Gaponenko, A. Miadlun and V. Shevtsova</i>	63
Bénard instabilities in a binary-liquid layer evaporating into an inert gas: Stability of quasi-stationary and time-dependent reference profiles <i>H. Machrafi, A. Rednikov, P. Colinet and P.C. Dauby</i>	71
Numerical study of convection induced by evaporation in cylindrical geometry <i>B. Trouette, E. Chénier, C. Delcarte and B. Guerrier</i>	83
Longwave Marangoni instability in a binary mixture under the action of vibration: Influence of the heat transfer on a free surface <i>I.S. Fayzrakhmanova, S. Shklyayev and A.A. Nepomnyashchy</i>	95
Convective instabilities in films of binary mixtures <i>S. Madruga and U. Thiele</i>	101
Observation of Marangoni flow in ordinary and self-wetting fluids using optical diagnostic systems <i>A. Cecere, R.D. Paola, R. Savino, Y. Abe, L. Carotenuto and S.V. Vaerenbergh</i>	109
Impact of electric fields on the speed of contact line in vertical deposition of diluted colloids <i>M. Giuliani, M. Pichumani and W. González-Viñas</i>	121

Stability of a thermal boundary layer in the presence of vibration in weightlessness environment <i>D. Lyubimov, T. Lyubimova, S. Amiroudine and D. Beysens</i>	129
Large-scale Marangoni convection in a liquid layer with insoluble surfactant of low concentration <i>A. Mikishev and A. Nepomnyashchy</i>	135
Interaction between buoyant and solutocapillary convections induced by a surface-active source placed under the free surface <i>A. Mizev and R. Birikh</i>	145
Marangoni instability of a heated liquid layer in the presence of a soluble surfactant <i>S. Shklyaeu and A.A. Nepomnyashchy</i>	155
Threshold onset of Marangoni convection in narrow channels <i>A. Mizev, M. Denisova, K. Kostarev, R. Birikh and A. Viviani</i>	163
Different types of nonlinear convective oscillations in a multilayer system under the joint action of buoyancy and thermocapillary effect <i>I.B. Simanovskii, A. Viviani, F. Dubois and J.-C. Legros</i>	175
Terrestrial simulation of drop saturation by a surfactant under microgravity conditions <i>M. Kim, K. Kostarev, N. Pisarevskaya and A. Viviani</i>	185
Receding contact lines: From sliding drops to immersion lithography <i>K.G. Winkels, I.R. Peters, F. Evangelista, M. Riepen, A. Daerr, L. Limat and J.H. Snoeijer</i>	195
Star-drops formed by periodic excitation and on an air cushion – A short review <i>P. Brunet and J.H. Snoeijer</i>	207