

Lattice-Boltzmann Method for Patterns and Deformation of Viscous Material Complex with Various Wetting

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In the dynamics of complex system consisting of many parts having different physical properties like partially molten material, it is difficult to understand all of the intrinsic nonlinear phenomena without considering the microstructure having deformable feature over the macro scale. Besides, connection of fluid in the system depends strongly on wetting between materials. We use a numerical method, Lattice-Boltzmann method, in order to reproduce various complicated structures of viscous material complex and to investigate the wetting effect for the segregation process of a fluid from the complex.