HYDRODYNAMIC VORTICES IN OPEN SYSTEMS WITH A MATTER SINK

E.A. Pashitskii, V.N. Malnev¹, R.A. Naryshkin¹

Institute of Physics, Nat. Acad. Sci. of Ukraine
(46, Nauky Prosp., Kyiv 03028, Ukraine;
e-mail: pashitsk@iop.kiev.ua),
¹Taras Shevchenko Kyiv National University,
Faculty of Physics
(6, Academician Glushkov Prosp., Kyiv 03022, Ukraine;
e-mail: naryshkin@univ.kiev.ua)

Summary

The evolution of hydrodynamic vortices (acceleration, stationary behavior, and diffusion) in multicomponent multiphase open systems with a matter sink in some region is considered. The mechanism of vortex development and dissipation influence on its stabilization are analyzed.