

THE LOCALIZATION OF A SPHERICAL  
FERROMAGNETIC MICROPARTICLE  
IN AN OSCILLATING MAGNETIC  
FIELD IN A LIQUID STREAM

*O.Yu. Gorobets, M.M. Potyemkin*

National Technical University of Ukraine  
“Kiev Polytechnic Institute”  
(37, Peremogy av., Kyiv 0356, Ukraine;  
e-mail: [mike\\_potyemkin@mail.ru](mailto:mike_potyemkin@mail.ru))

S u m m a r y

The model of magnetic tweezers in a rapidly oscillating alternating magnetic field, which allows one to estimate the movement of a ferromagnetic magnetically soft microparticle in a magnetic trap and to localize it in a liquid, is offered. The estimations of the strength and the frequency of an oscillating alternating magnetic field and the size of a spherical microparticle are carried out. The movement trajectory of a spherical microparticle is calculated as well.