

Abstract Submitted
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Force analysis of a permanent magnet and a superconducting hollow cylinder MOHAMMED ALQADI — The interaction between a cylindrical magnet and a superconducting hollow cylinder in the Meissner state was analyzed using dipole-dipole model. Analytical expression of the levitation force was derived as a function of the magnetic moment, radius of the magnet, radius and thickness of the superconductor sample. The obtained results show that there is strong dependent of the levitation force on the magnetic dipole orientation at a small magnet-superconductor distance.

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