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Estimation of specific energy capacity of flywheelhousing system in potential field

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Abstract

© 2014 D.V.Berezhnoi et al. The paper introduces basic methods of computational investigation for specific energy capacity of kinetic energy storages based on flywheel-housing scheme. In addition to the traditional estimation of energy capacity on the flywheel kinetic energy, we consider estimation of specific energy capacity of flywheel-housing system in potential field. We analyze the possibilities of the use of various structural materials in the manufacture of flywheel and its housing. Notice, that potential field in flywheel-housing system allows to increase the specific energy capacity of kinetic energy storage.

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Keywords

Flywheel-housing system, Kinetic energy, Specific energy capacity