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# EVALUATION OF LEVITATED MOTION OF VEHICLE OF ELECTRODYNAMIC TRANSPORT SYSTEM WITH NONSTANDARD DESIGN

Based on the solution of differential motion equations for the vehicle with developed nonstandard design of an electrodynamic transport system having two lines of superconducting magnets on the vehicle and one line of track contours on a plane track structure, the stability of its levitated motion on straight and curved tracks with constant and variable curvatures is evaluated. The work goal is to develop recommendations for creation of a new electrodynamic transport system. Novelty lies in the possibility of applying a plane track structure and one row of track contours for an electrodynamic transport system. The methods used are theoretical investigations. The results: a stable levitated motion of the vehicle on straight paths of the track structure in a wide range of speeds occurs with rational values of the basic parameters of the system: speeds on curves are limited by permissible factors on accelerations of the body in a transversal direction. We can conclude that the transport system developed is efficient.

*Keywords: stable motion, vibrations, plane track structure, electrodynamic transport system, curvature of track.*

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