Forms of Energy for the Levitation of a Magnetic Vehicle

Morales, Felix

It’s important to offer alternatives to solve of environmental contamination caused by CO2 and other car emissions. The problem is: What is the effect of using different forms of energy in the formation of an electromagnetic field for a car track? The hypothesis is that the combination of chemical and photovoltaic energy will increase electromagnetic induction allowing the levitation of a light vehicle. A highway similar to the Maglev train system was designed. Ceramic magnets for the prototype of the car were used, two electromagnets were made for the creation of the track using: multiple batteries, a photovoltaic panel, and a track prototype with specific measures. On the first test a capacitor was connected to the electromagnetic coils, a generator and finally a photovoltaic panel. On this first test, the electromagnetic field was very weak and there wasn’t levitation. On the second test, 9 batteries were connected to the circuit, each one was connected to the electromagnets. The test achieved a better electromagnetic field and no levitation. In the last test the capacitor was connected to the generator, photovoltaic panel and 9 batteries per electromagnet. The combination of energy forms produced a stronger electromagnetic field and the car levitated to an average height of 5-6mm. The results demonstrated that the photovoltaic energy can be beneficial in the production of energy in electromagnetic induction track systems. The hypothesis was accepted. In future investigation different forms of energy and the expansion and creation of the prototype car track will be made.

Awards Won:

Arconic Foundation: Third Award of $3000