

In this paper, the piezoelectric-based road energy harvesting systems were comparatively evaluated against other common renewable and non-renewable energy sources with respect to their social and environmental merits.

Watt-level road-vibration energy acquisition technology has wide application prospects because it can supply power to wireless low-power traffic-infrastructure sensors and ...

This paper presents a road piezoelectric micro-energy collection-storage system, which overcomes the problem of limited application due to the existing technology being ...

The main objective of this study is to present an energy harvesting approach to scavenge electrical energy from mechanically vibrated piezoelectric materials. A mechanical ...

The seventh section is a brief overview of energy harvesting using piezoelectric films. The eighth section describes some examples of the application of PEHs for wireless devices and self ...

For road engineering, the mechanical vibration energy generated by automobile driving is widespread, and the mechanical stress is generally large and the frequency is low, ...

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For many decades now, the rate of consumption and demand for energy has far outstripped supply. Rising oil prices and dwindling reserves have led to global concerns about an impending energy crisis. On the other hand, there is ...

Road pavements are spread over large areas and convey various possibilities for energy sources such as high thermal gradients due to their materials and colors, wind corridors, large flat areas for solar harvesting, ...

This paper presents a road piezoelectric micro-energy collection-storage system, which overcomes the problem of limited application due to the existing technology being unsuitable ...

Application of piezoelectric transducer in energy harvesting in the pavement, Xiaochen Xu, Dongwei Cao, 2017. This paper states that utilizing piezoelectric technology in road energy harvesting is feasible and has a bright future. It ...

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