

## ■ 科技成果

# 绿色能源小车： 太阳能与风能驱动的实验模型

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**摘 要：**本研究设计并制作了一种绿色能源小车实验模型，采用太阳能和风能进行驱动。该小车模型结构简单，利用太阳能电池板和风力发电装置进行能量转换，实现了绿色能源的有效利用。实验结果表明，小车能够在充足的阳光和适度的风力下顺利运行，且具有较好的稳定性和运行效率。同时，根据实验数据对小车进行优化设计，提高了太阳能和风能的利用效率，进一步改善了小车的性能指标。总体而言，本研究为绿色能源驱动系统在实际应用中提供了有效的参考和借鉴，对于促进可持续能源的发展具有一定的指导意义。

**关键词：**绿色能源；太阳能；风能；小车实验模型；可持续发展

## Green Energy Vehicle: An Experimental Model Powered by Solar and Wind Energy

**Abstract:** A green energy trolley experimental model, using solar energy and wind energy. The car model structure is simple, using solar panels and wind power generation device for energy conversion, to realize the effective use of green energy. The experimental results show that the car can run smoothly under sufficient sunlight and moderate wind power, and has good stability and operation efficiency. At the same time, according to the experimental data, the optimized design of the car improves the utilization efficiency of solar energy and wind energy, and further improves the performance index of the car. In general, this study provides an effective reference for the practical application of green energy-driven system, and has a certain guiding significance for promoting the development of sustainable energy.

**Keywords:** Green energy; Solar energy; Wind energy; Trolley experimental model; Sustainable development