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Advancement in Self-Charging Technology

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Abstract: *The transportation sector is one of the largest contributors to greenhouse gas emissions, and the increasing demand for personal mobility is exacerbating this problem. Electric vehicles (EVs) have emerged as a promising solution to reduce emissions, but their limited range and long charging times remain a major barrier to widespread adoption. Self-charging electric vehicles (SCEVs) have the potential to overcome these limitations by generating electricity on the go, thereby extending their range and reducing the need for external charging infrastructure. This research paper explores the concept of SCEVs, their working principles, and their potential benefits for sustainable transportation. The paper also provides an overview of various self-charging technologies, such as solar panels, regenerative braking, and thermoelectric generators, and analyzes their feasibility and limitations. Additionally, the paper examines the potential environmental and economic impacts of SCEVs and presents case studies of successful SCEV models. The findings of this research paper suggest that SCEVs have the potential to revolutionize the EV market and significantly contribute towards sustainable transportation*

Keywords: Electric vehicles, self-charging electric vehicles, solar panels, regenerative braking, thermoelectric generators, kinetic energy harvesting, sustainable transportation, emissions reduction, range anxiety, charging infrastructure