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# (57) Abstract:

This invention presents a Liquid Rechargeable Lithium-ion Battery system optimized for Electric Vehicles (EVs) by incorporating liquid electrolytes and deep learning algorithms. Liquid electrolytes enhance heat dissipation during charging and discharging, improving safety. Deep learning algorithms continuously monitor and adapt battery performance to environmental and usage conditions, extending lifespan and enhancing efficiency. Moreover, these algorithms predict optimal charging times, considering grid demand and energy costs, reducing downtime. Beyond EVs, the system facilitates efficient energy storage for renewable energy integration, contributes to grid stability, fosters economic growth, and empowers consumers in energy decision-making. As a catalyst for global sustainable energy transition, this invention combines advanced technology with environmental responsibility, shaping a future marked by cleaner, smarter energy systems and transportation.

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