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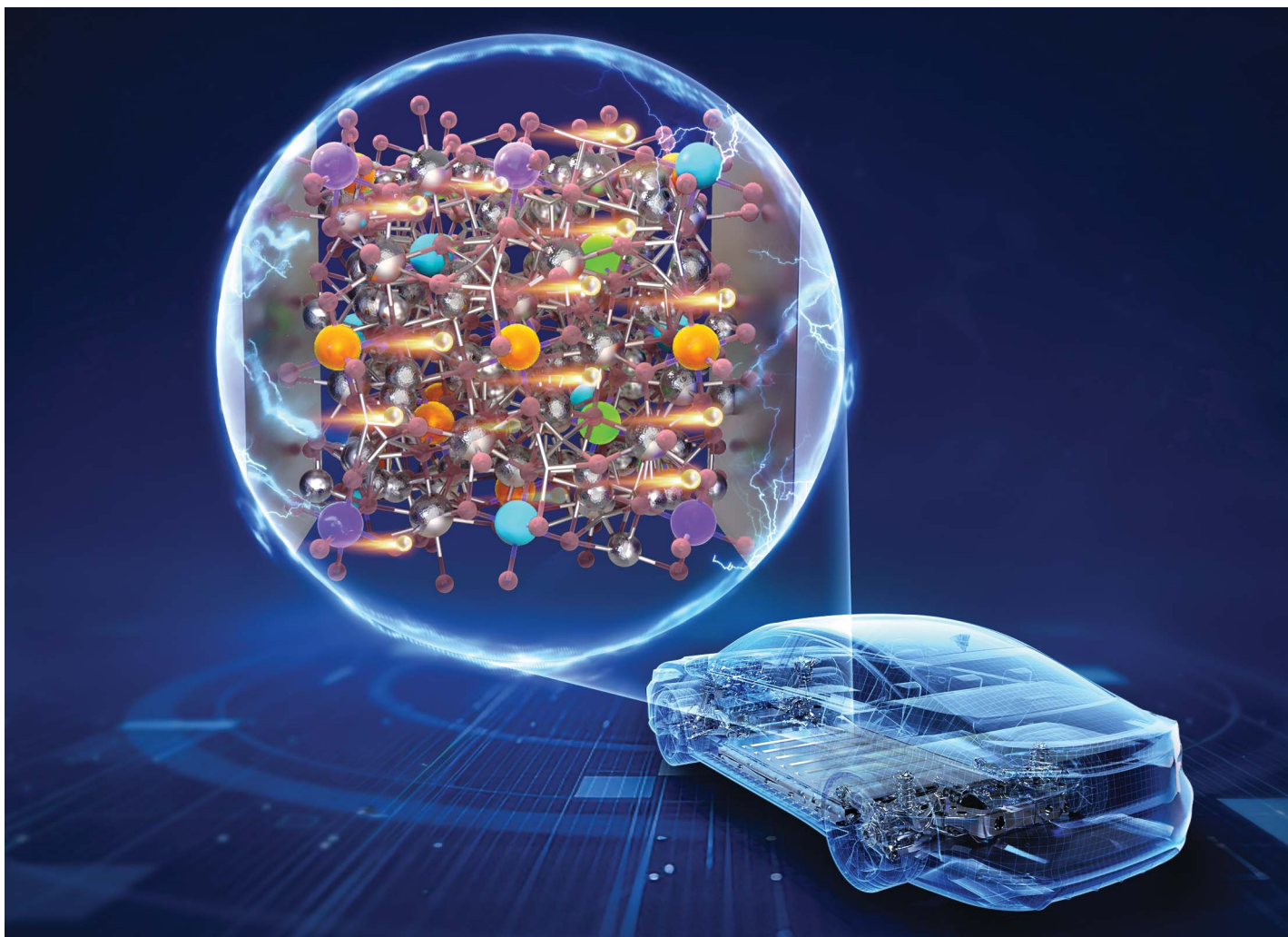
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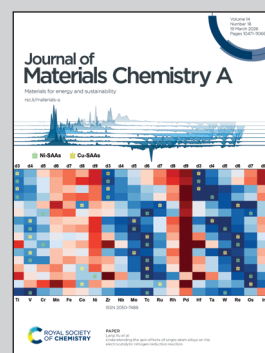
Showcasing research from Professor Zhezhen Fu's laboratory, School of Science, Engineering and Technology, Mechanical Engineering, Pennsylvania State University-Harrisburg, USA.

Influence of Li-site dopants on phase stabilization, lithium distribution, and ionic conductivity in high-entropy Li-garnet solid electrolytes

Li-site doping in high-entropy garnet electrolytes ( $\text{Li}_{6-x}\text{A}_x\text{La}_3\text{Zr}_{0.5}\text{Nb}_{0.5}\text{Ta}_{0.5}\text{Hf}_{0.5}\text{O}_{12}$ ,  $\text{A}=\text{Al}^{3+}$ ,  $\text{Fe}^{3+}$ ,  $\text{Ga}^{3+}$ , and  $\text{Zn}^{2+}$ ) regulates active vacancy networks and Li-ion transport pathways, revealing the critical role of cation disorder in governing ionic conductivity.

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As featured in:



See Zhezhen Fu *et al.*, *J. Mater. Chem. A*, 2026, **14**, 10609.