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Sodiation vs. Lithiation of FePO_4 : A comparative kinetic study

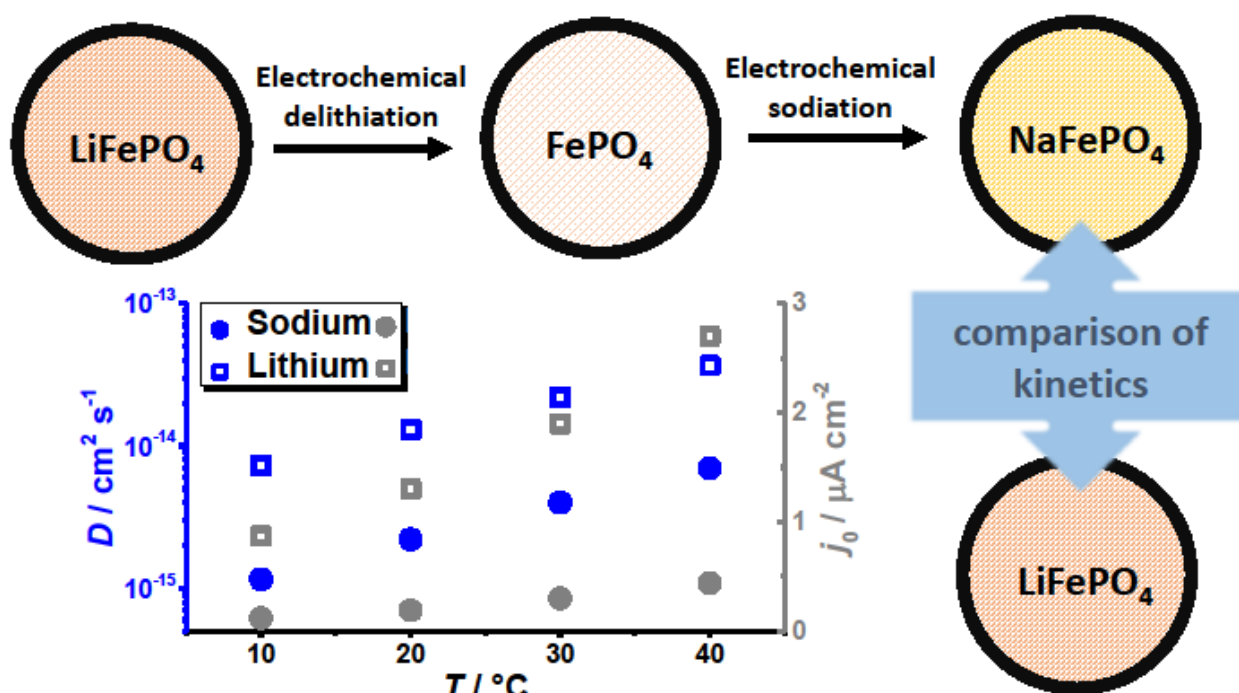
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Graphical abstract



Highlights:

- Comparison of intercalation kinetics: sodiation vs. lithiation of FePO_4
- Rate constant of sodiation is significantly lower compared to lithiation
- Solid state diffusion of sodium in FePO_4 is slower compared to lithium
- Larger activation energies of sodiation compared to lithiation of FePO_4

Abstract

A comparative study of sodiation and lithiation of FePO_4 host material for secondary sodium- and lithium-ion batteries is performed. To ensure the best possible comparability, NaFePO_4 based electrodes are prepared by an electrochemical

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