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Zr Doping Effects on LiFePO<sub>4</sub> Cathode Materials for Lithium-Ion Batteries TRAVIS NEELEY, JACOB HILL, JULIO SANCHEZ-BERLANGA, GAN LIANG, HUI FANG — LiFePO<sub>4</sub> cathode materials doped with various percentages of Zr on the Fe site are synthesized using both the solution and ball milling methods. X-ray diffraction, cyclic voltammetry, and constant current charge/discharge measurements are employed to characterize the structural, electronic, and electrochemical properties of the samples. The effects caused by Zr doping on Fe site sintered at various temperatures will be discussed and presented.

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