Review

Metal Organic Frameworks Derived Nano Materials for Energy Storage Application

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Metal organic frameworks (MOFs) and derived Nano-materials have attracted much attention due to their various controllable nanostructures with large surface area and high porosity. MOFs are usually used as precursors or template to prepare various derived Nano-materials. This paper reviews the development of typical MOFs derived material design and synthesis progresses when they are used as electrodes material for energy storage such as lithium-ion batteries (LIBs), sodium-ion batteries (SIBs) and super-capacitor (SCs). Porous carbon, metal oxide, carbon matrix hybrid, mixed metal and two dimensional MOFs derived material (Zn, Co, Cu) are mainly presented. Besides, the major challenges and perspectives are mentioned in the end of review.

Keywords: MOFs, Lithium-ion batteries, Super-capacitors, Sodium-ion batteries

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