

Semantic Scholar extracted view of "Rare earth doped bismuth molybdate nanoplatelets for boosting electrochemical performance: Facile synthesis and device fabrication" by A. Shameem et al. ... Enhanced energy storage performance of iron molybdate by Ni doping. Yan Li Mingyu Ma +9 authors Zhenxing Zhang. Materials Science, Engineering.

According to energy storage mechanism, ... we have demonstrated a simple electrodeposition-heat-method for the synthesis of hierarchical bismuth molybdate nanowires. Electrochemical measurements indicated that the hierarchical bismuth molybdate nanowires exhibited a maximum specific capacitance of  $1075 \text{ F g}^{-1}$  at the current density of  $0.1 \text{ A ...}$

A remarkable electrochemical performance of  $\text{Bi}_2\text{Mo}_3\text{O}_{12}$  with an exceptional power density of  $750 \text{ W kg}^{-1}$  was observed for the prepared asymmetric device. Bismuth molybdate's notable performance indicates that it can be an active material for energy storage applications.

Novel bismuth oxide/sodium bismuth molybdate nanocomposites (NCs),  $\text{Bi}_2\text{O}_3 @ \text{NaBi}(\text{MoO}_4)_2$ , were developed successfully via simple methods. Advanced analyses revealed that the NCs were composed of  $\text{Bi}_2\text{O}_3$  and  $\text{NaBi}(\text{MoO}_4)_2$  particles at the nanoscale, below  $10 \text{ nm}$ , in a combination of amorphous and crystalline forms. In this work, these NCs ...

Bismuth molybdate (BMO), a visible light driven photocatalyst, has engrossed considerable attention in the last few years in virtue of its non-toxicity, efficiency, and visible light response [54]. ... as well as photocatalysis-assisted piezocatalysis and electrochemical energy storage are introduced in the respective type. Finally, concluding ...

The principles and energy storage mechanism of the bismuth ferrites and mixed bismuth ferrites have successfully reported attempted. With increasing annealing temperature, the contact angle decreases due to relatively hydrophilic surface formation of BFO electrode material. Hydrophilic surface of the ferrite electrode facilitates several redox ...

Sustainable energy sources require an efficient energy storage system possessing excellent electrochemical properties. The better understanding of possible crystal configurations and the development of a new ternary metal oxide in molybdate composite as an electrode for hybrid capacitors can lead to an efficient energy storage system.

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**Bismuth molybdate  
energy storage**

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