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Review

Ruthenium based materials as electrode materials for supercapacitors

Qing Li, Shasha Zheng, Yuxia Xu, Huaiguo Xue, Huan Pang

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**Ruthenium based materials as electrode materials for supercapacitors**

*Qing Li, Shasha Zheng, Yuxia Xu, Huaiguo Xue and Huan Pang\**

Qing Li, Shasha Zheng, Yuxia Xu, Prof. Huaiguo Xue, Prof. Huan Pang  
Guangling College, School of Chemistry and Chemical Engineering, Yangzhou University  
Yangzhou, 225009, Jiangsu, P. R. China.

E-mail: [huanpangchem@hotmail.com](mailto:huanpangchem@hotmail.com); [panghuan@yzu.edu.cn](mailto:panghuan@yzu.edu.cn)

Homepage: <http://huanpangchem.wix.com/advanced-material>

Ruthenium based materials with rapid reversible redox process, a variety of valence options and flexible environmental adaptability have been aroused researchers's great interest in the development of supercapacitors. This review provides a comprehensive introduction to the application of ruthenium based materials and their composites in supercapacitors, focusing on their synthetic methods, the selection of raw materials, the control of conditions such as temperature, electrolyte, and pH, as well as their electrochemical performances.

Keywords: Ruthenium based materials, electrochemical performance, supercapacitors

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