

## Synthesis of Polypyrrole Coated Ordered Mesoporous Carbons (OMCs) for Improving Supercapacitor Characteristics

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Ordered mesoporous carbons (OMCs) have attracted considerable attention in various field of study due to high surface area. In particular, OMCs containing heteroatom(O, N, S, P, B and so on.) as the next generation energy storage device used in electrode materials are involved not only electrical double layer capacitor by high surface area but also pseudo-capacitor by redox reactions of heteroatom. Thus, Polypyrrole was synthesized inside the pore system of host material OMCs containing heteroatom through a nano-replication method. The Py/hetero-OMCs material thus obtained could be utilized excellent electrode of supercapacitor, because it is exhibited simultaneously redox reaction and EDL reaction to obtain the greater capacitance.