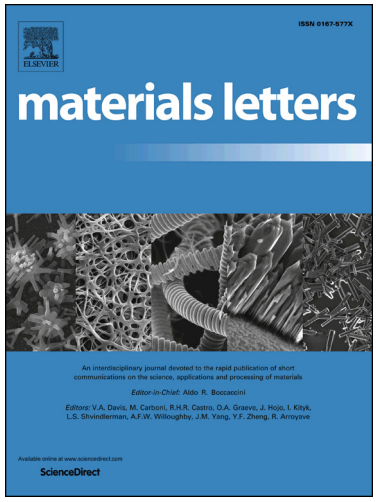

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Core–Shell MoO_2/C Nanospheres Embedded in Bubble Sheet-like Carbon Film as Lithium Ion Battery Anodes

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Abstract:

The core-shell MoO_2/C hollow spheres encapsulated by interwoven carbon networks were synthesized by a simple solvothermal process followed by an anneal procedure. This core–shell MoO_2/C nanospheres embedded in bubble sheet-like carbon film (MCB) electrodes exhibit outstanding electrochemical performance as anodes for LIBs. It can deliver a stable specific capacity of ~500 mA h g^{-1} at 1C for 300 cycles, and an excellent rate capability: retaining of 275.2 mA h g^{-1} at 3C, as well as backing to the same stage when the current density is reduced to 0.2C.

Keywords: MoO_2, nanosphere, core-shell structure, bubble paper.