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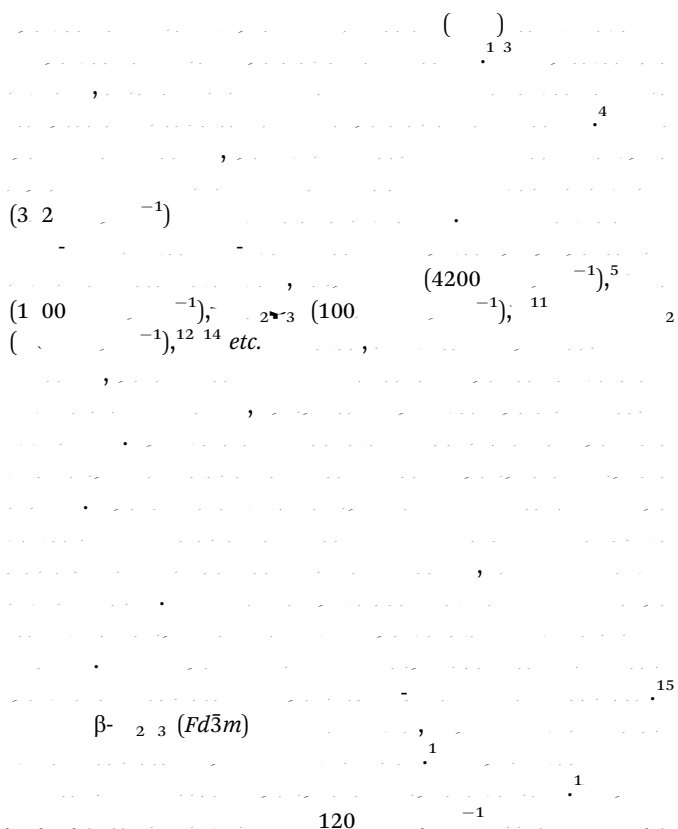
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Mesoporous and carbon hybrid structures from layered molecular precursors for Li-ion battery application: the case of β - In_2S_3 [†]

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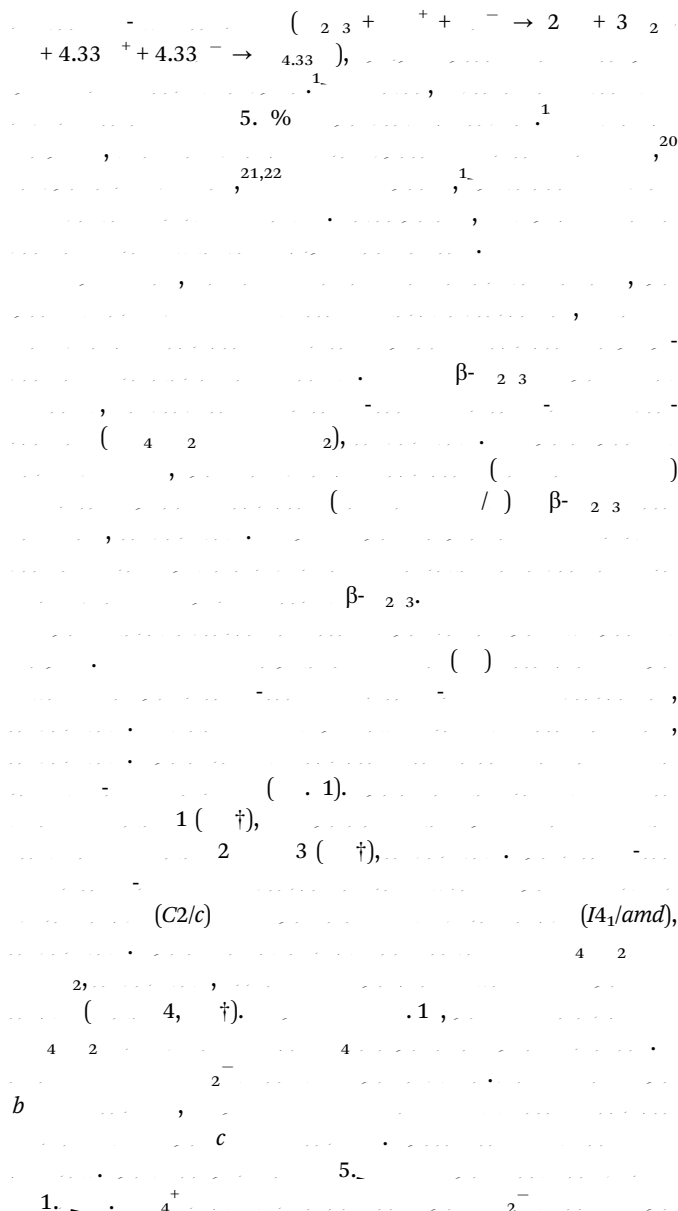
A new method was demonstrated to construct mesoporous and carbon hybrid structures of β - In_2S_3 from the thermal decomposition of layered molecular precursors. When applied to LIBs, they all exhibit good cycling stability and excellent rate performance due to the great uniformity of mesopores and pyrolysis carbon distributed in the materials.



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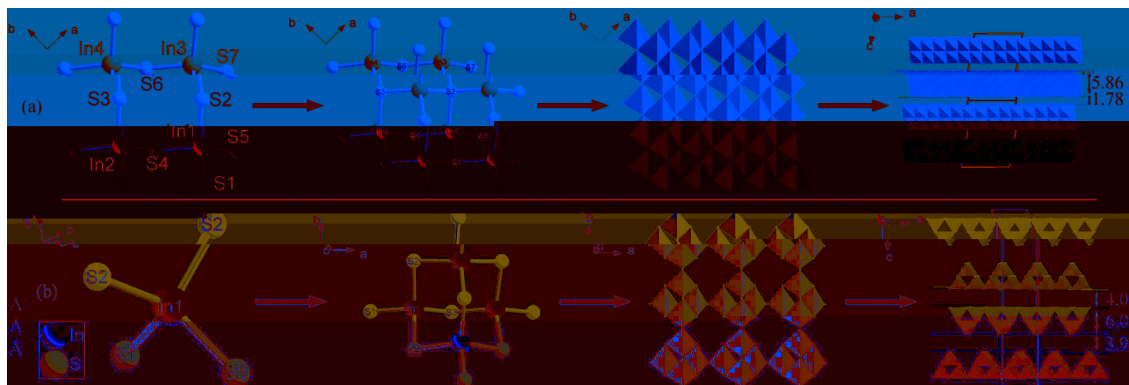


Fig. 1 The crystal structures of the layered carbon-free precursor NH_4InS_2 (a) and the layered carbon-containing precursor EnInS_2 (b). The brown tetrahedra mean InS_4 tetrahedra.

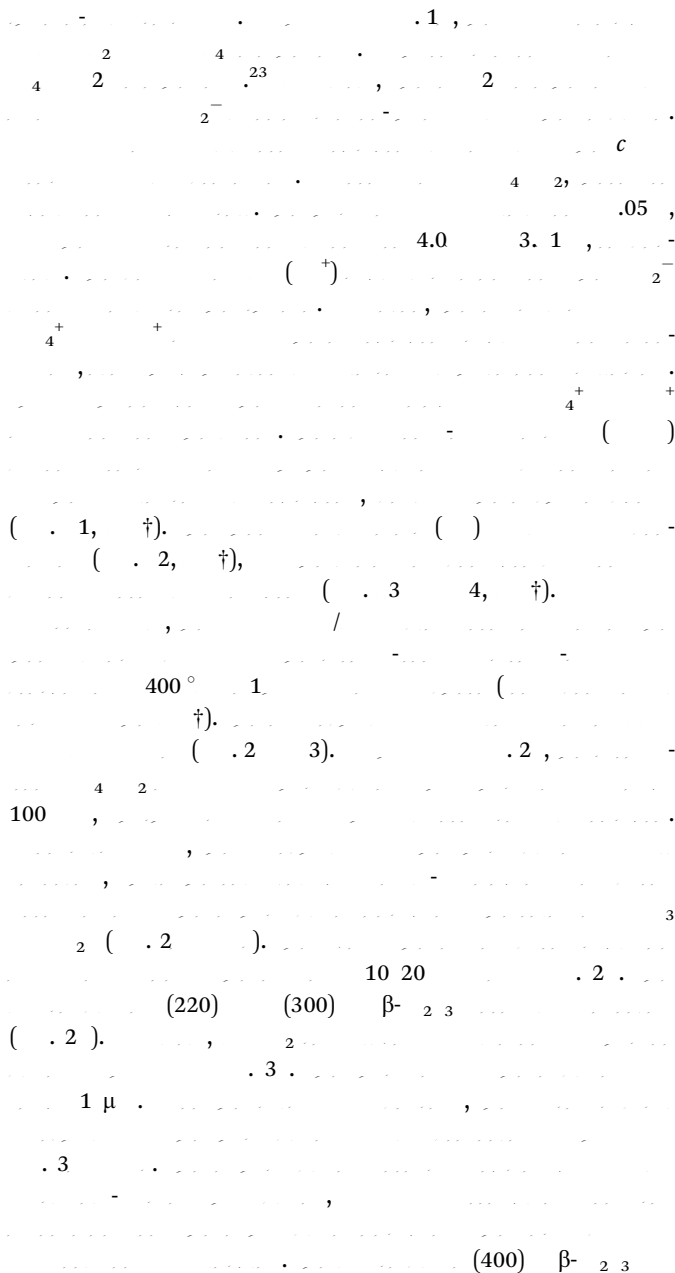


Fig. 2 SEM images of the carbon-free precursor NH_4InS_2 (a) and the MIS sample (b); TEM (c) and HRTEM (d) images of the MIS sample.

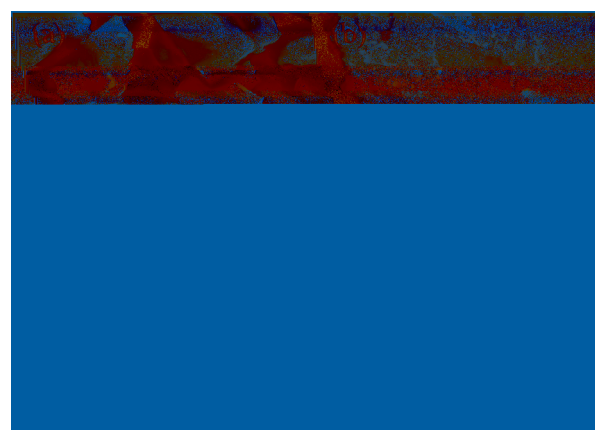
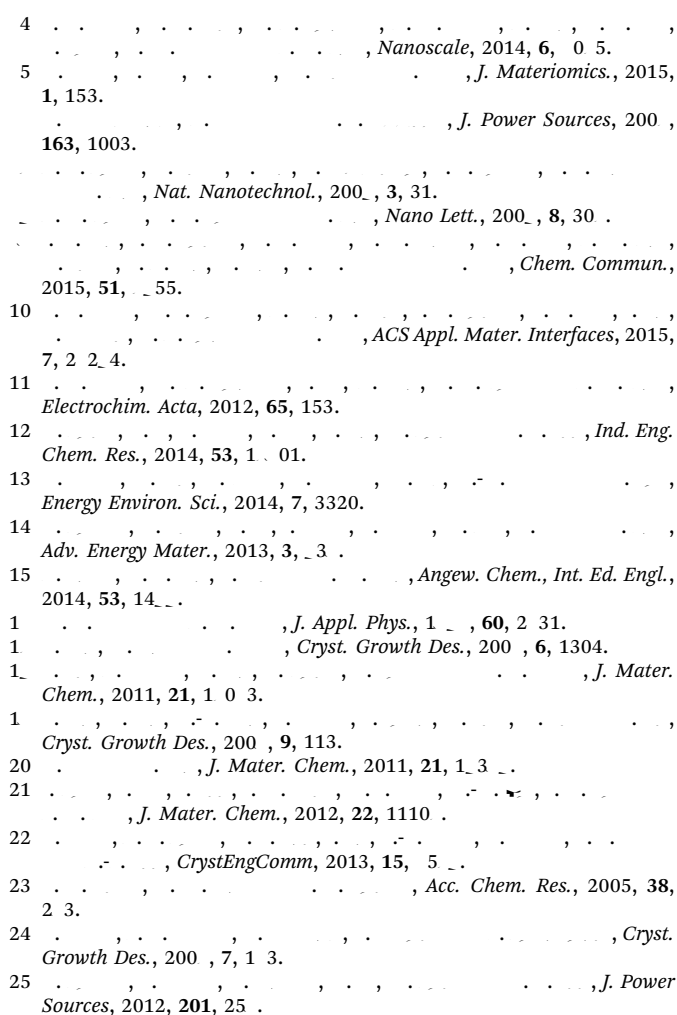


Fig. 3 SEM images of the carbon-containing precursor EnInS_2 (a) and the IS/C sample (b); TEM (c) and HRTEM (d) images of the IS/C sample.



1., *Nat. Chem.*, 2015, **7**, 1.
2., *Mater. Today*, 2015, **18**, 252.
3., *J. Electrochem. Soc.*, 2015, **162**, 252.