

Supplementary Material (ESI) for *Crystengcomm*
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Supplementary information

Controllable Fabricating Perovskite SrZrO₃ Hollow Cuboidal Nanoshells

Tiannan Ye^a, Zhenghong Dong^a, Yongnan Zhao^{*a}, Jianguo Yu^a, Fengqin Wang,
Shukun Guo and Yongcun Zou^{*b}

^a *Institute of Nanostructured Materials & Tianjin Key Laboratory of Fiber Modification and Functional Fiber, School of Materials Science and Engineering, Tianjin Polytechnic University, Tianjin 300160, China. Fax: 86 22 24528055; Tel: 86 22 24528165; E-mail: zhaoy@263.net*

^b *The State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, Jilin University, Changchun 130023, China. Fax: 86 431 85168516; Tel: 86 431 85168624; E-mail: zouyc@jlu.edu.cn*

** Electronic mail: zhaoy@263.net (Prof. Yongnan Zhao);*

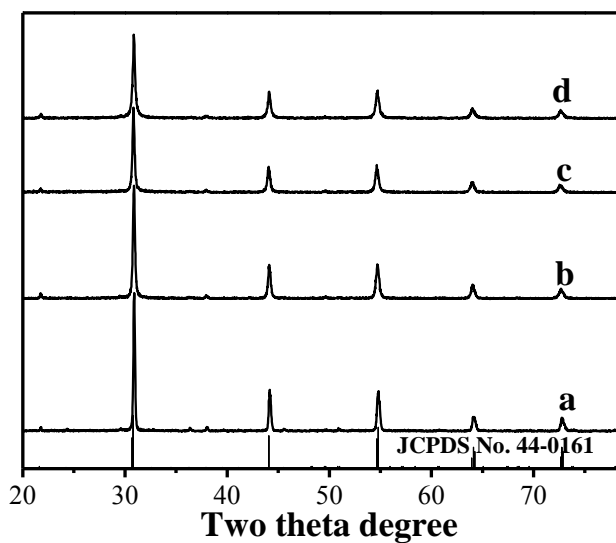


Fig. S1 XRD patterns of SrZrO₃ samples prepared at 200 °C for 24 hrs in the different concentration of the KOH solution: (a) 8 mol·L⁻¹, (b) 25 mol·L⁻¹, (c) 30 mol·L⁻¹, (d) 38 mol·L⁻¹.

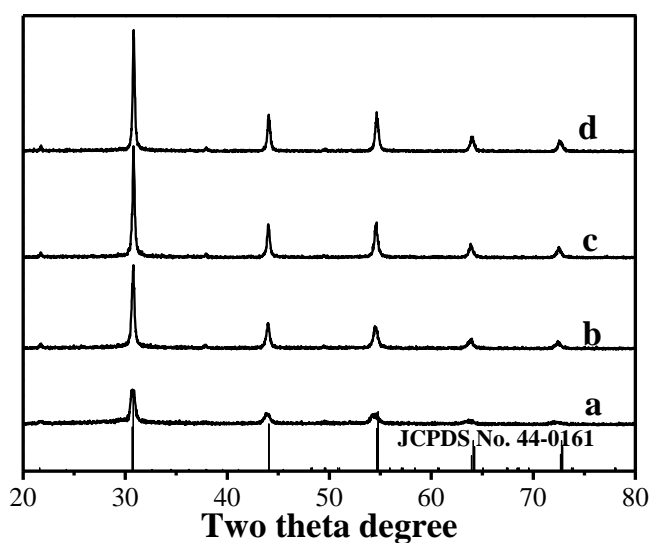


Fig. S2 XRD patterns of SrZrO₃ samples prepared in 30 mol·L⁻¹ KOH solution for 24 hrs at the different reaction temperature: (a) 120 °C, (b) 160 °C, (c) 180 °C, (d) 200 °C.

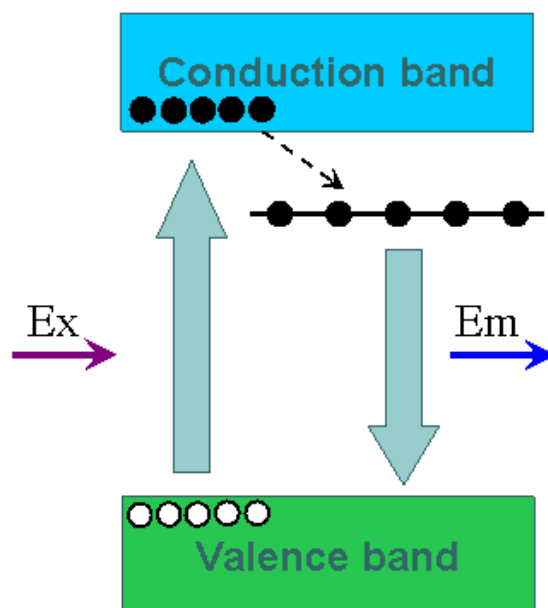


Fig. S3 The schematic models of possible mechanisms for the observed photoluminescence of SrZrO₃ hollow cuboidal nanoshells. In the schematic models, the upper (blue) and the lower (green) bands are Zr 4d conduction bands and the O 2p valence bands, respectively. The black bar below the conduction band corresponds to the defect level created by the oxygen deficiency. White and black circles stand for the excited holes and electrons, respectively.