

Supporting Information

Interfacial growth behavior of SnO₂ nanorods on {11-20} and {10-10} facets of α -Fe₂O₃

Yi-Qun Zhang, Ling-Dong Sun*, Wei Feng, Hao-Shuai Wu, Chun-Hua Yan*

Beijing National Laboratory for Molecular Sciences, State Key Lab of Rare Earth Materials Chemistry and Applications, PKU-HKU Joint Lab in Rare Earth Materials and Bioinorganic Chemistry, Peking University, Beijing, 100871, China.

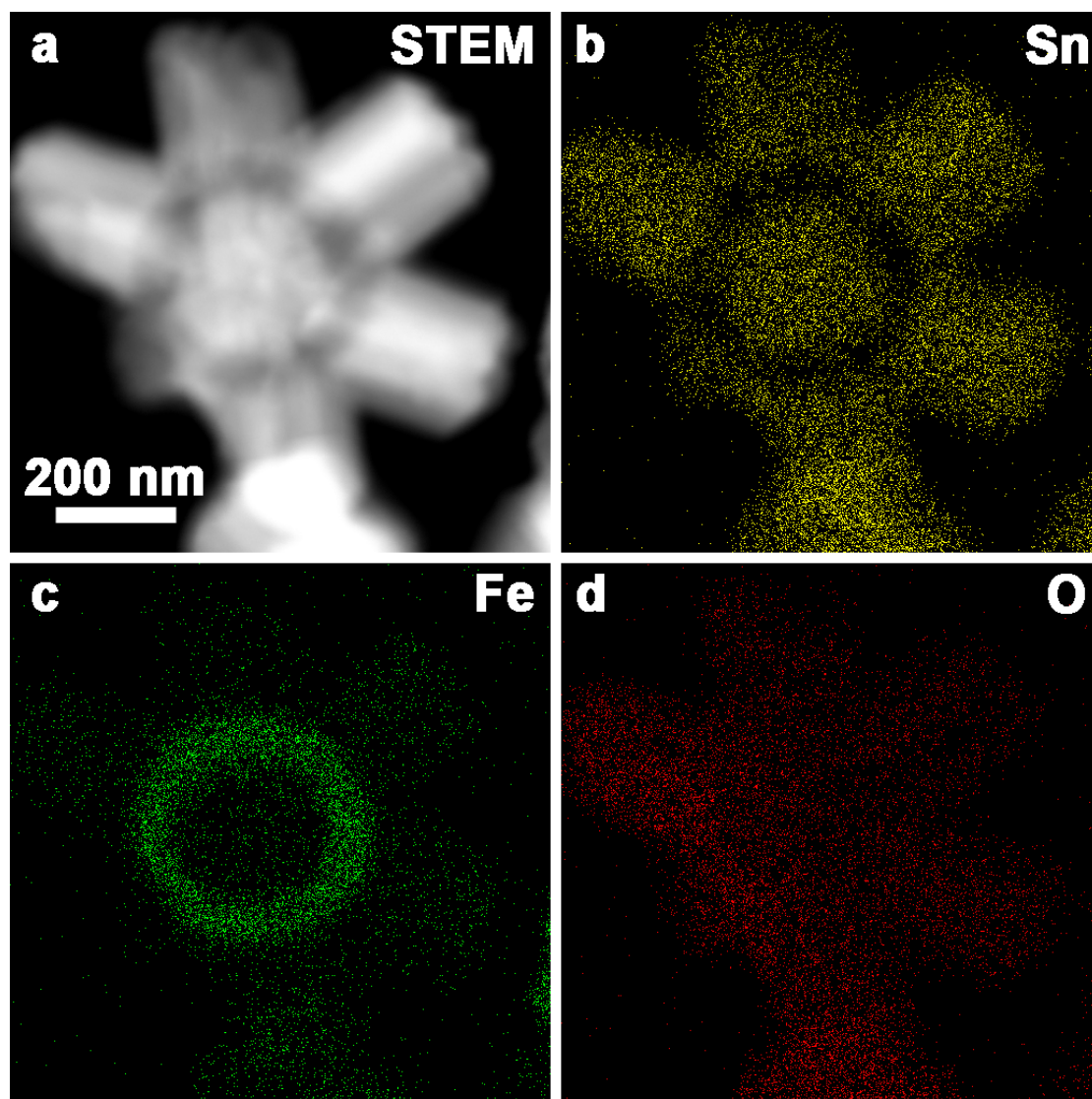


Figure S1. (a) STEM image of the α -Fe₂O₃/SnO₂ composite; (b, c, d) element mapping results of the α -Fe₂O₃/SnO₂ composite.

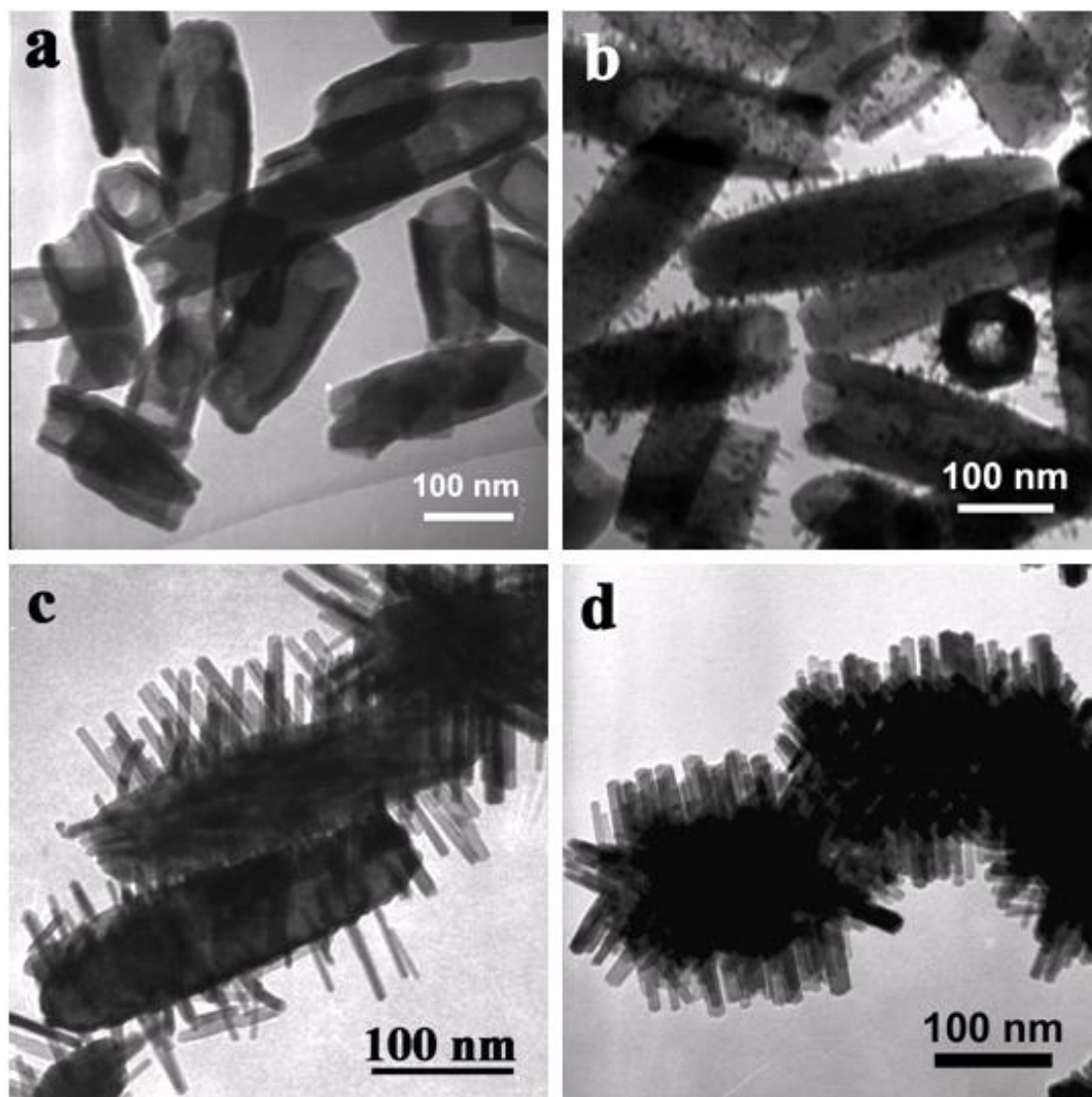


Figure S2. TEM images of $\alpha\text{-Fe}_2\text{O}_3/\text{SnO}_2$ composite obtained after (a) 2 h, (b) 4 h, (c) 6 h, and (d) 9 h.

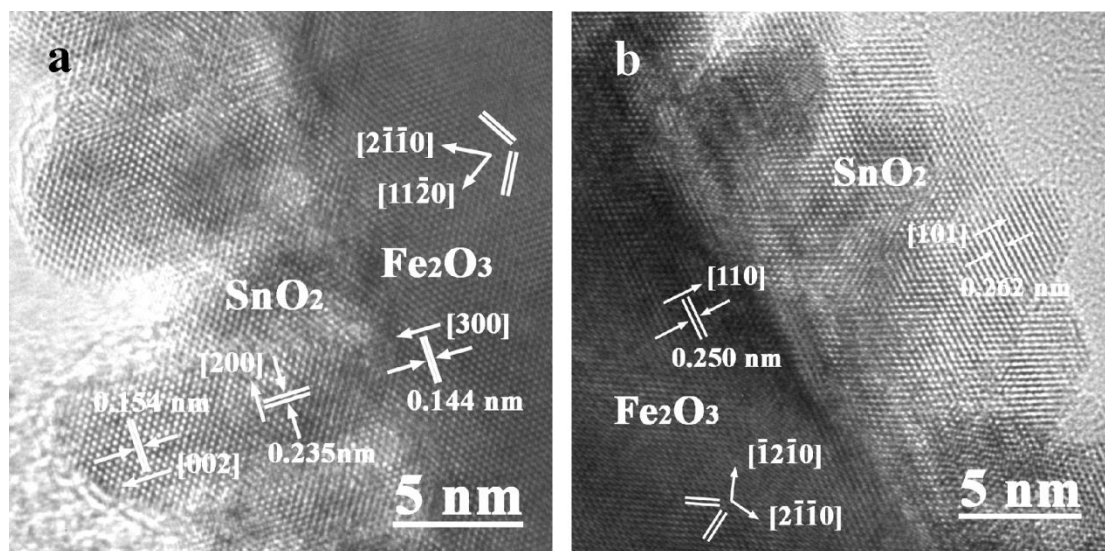


Figure S3. SnO₂ nanorods with (a) [001] and (b) [101] direction at the side surfaces of α -Fe₂O₃ nanorings.

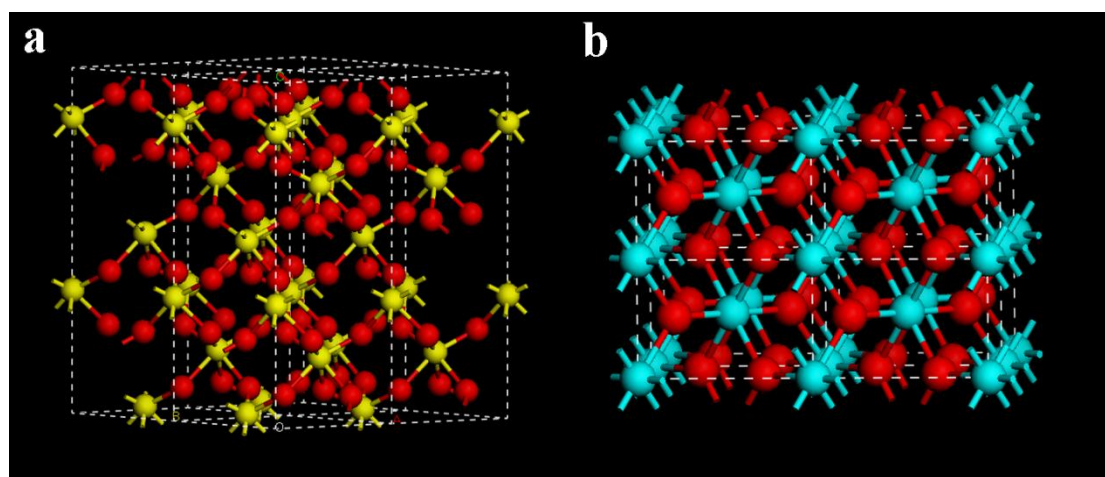


Figure S4. Crystal structure of (a) α -Fe₂O₃ and (b) SnO₂.

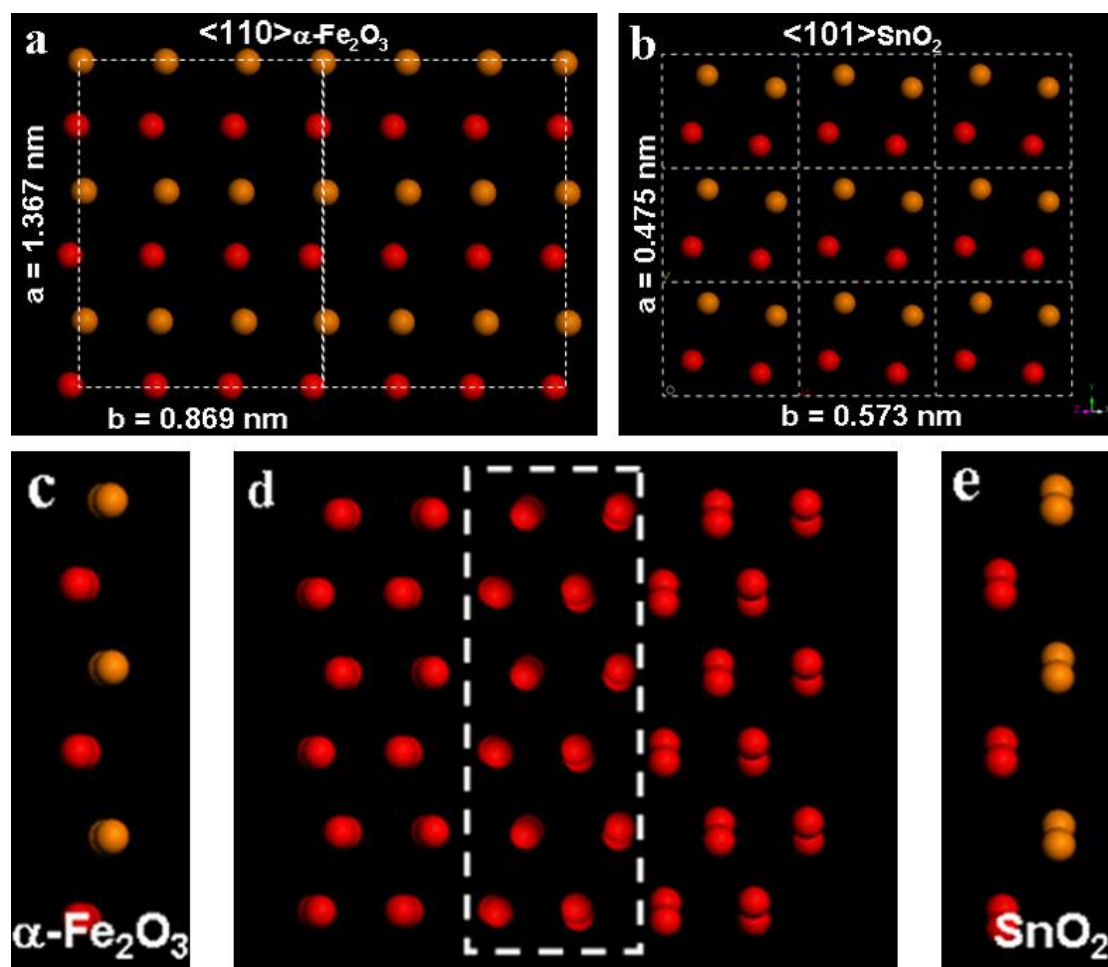


Figure S5. Oxygen diagram of (a) of $\alpha\text{-Fe}_2\text{O}_3$ (11-20) plane and (b) SnO_2 (101) plane, (c) side view of (a), (e) side view of (b), (d) oxygen diagram at the interface (white dotted frame) of $\alpha\text{-Fe}_2\text{O}_3$ (left) and SnO_2 (right).

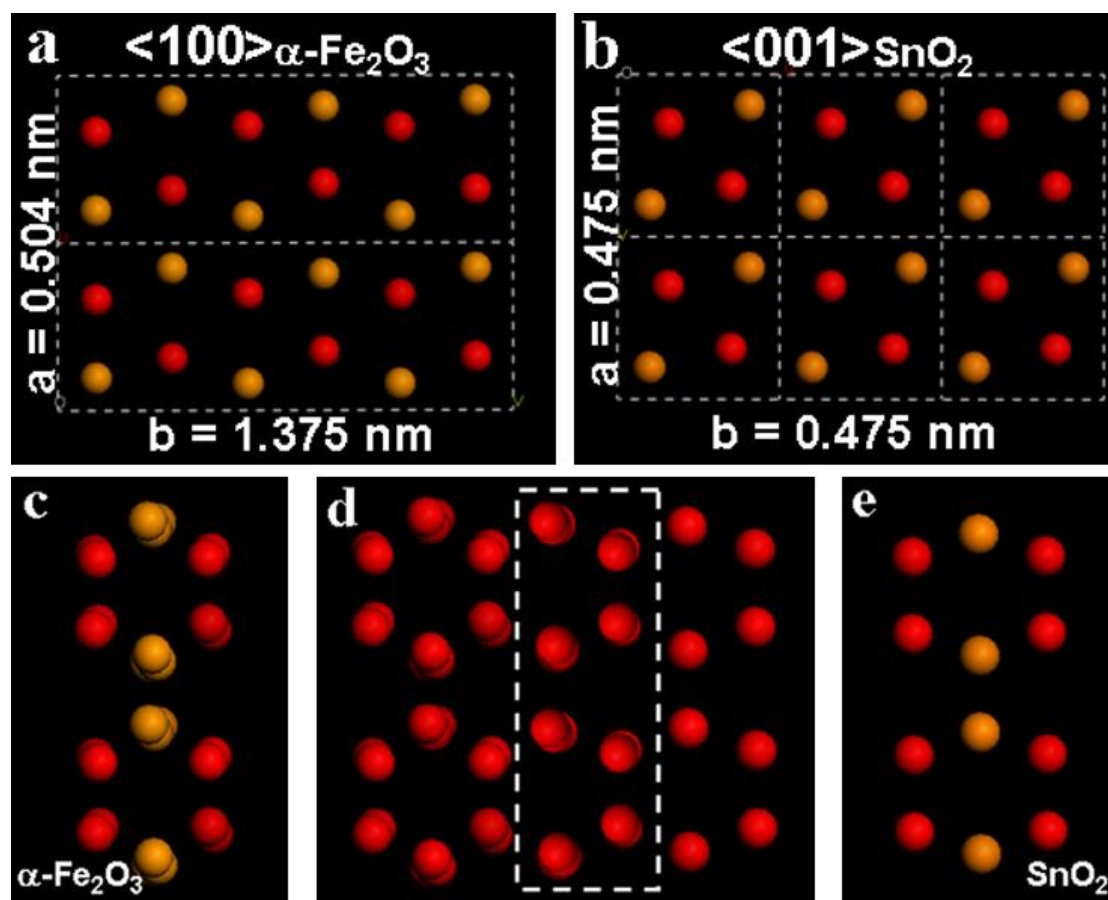


Figure S6. Oxygen diagram of (a) of $\alpha\text{-Fe}_2\text{O}_3$ (10-10) plane and (b) SnO_2 (001) plane, (c) side view of (a), (e) side view of (b), (d) oxygen diagram at the interface (white dotted frame) of $\alpha\text{-Fe}_2\text{O}_3$ (left) and SnO_2 (right).