

Supplementary Information

Synthesis of uranium oxide nanoparticles and their catalytic performance for benzyl alcohol conversion to benzaldehyde

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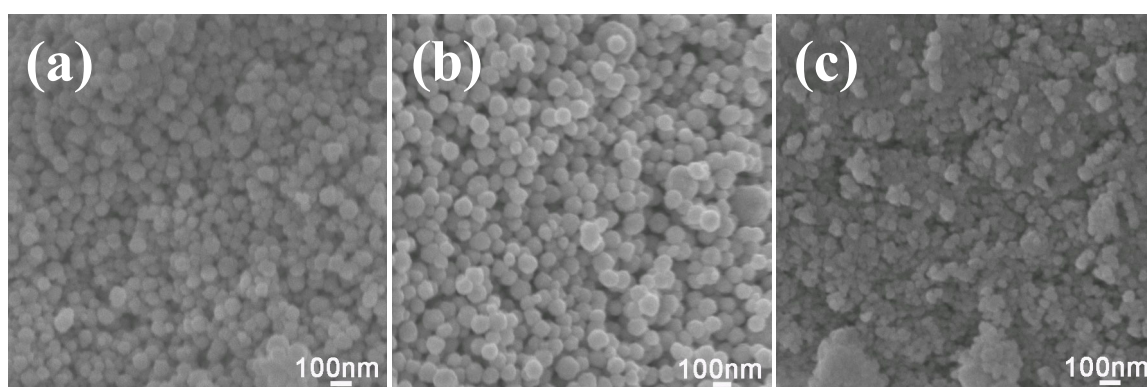


Fig. S1. Typical SEM images of the UO_2 sample obtained using $\text{H}_2\text{O}:\text{en}$ volume ratios of 2:1 (a), 1:1 (b) and without water (c).

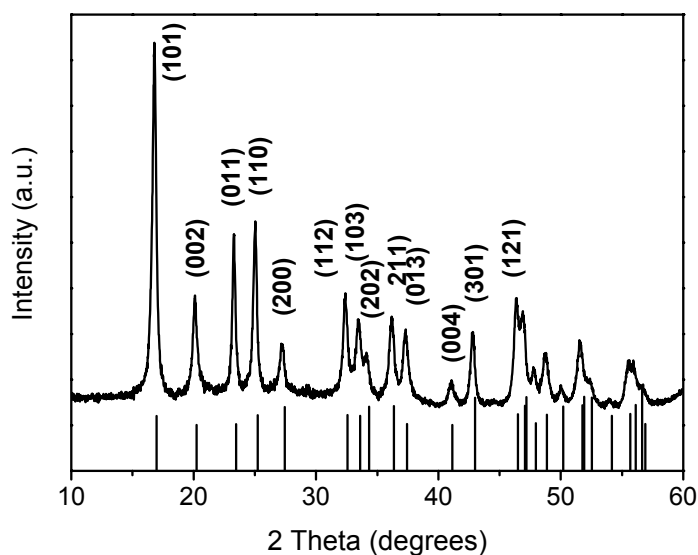


Fig. S2. Powder XRD pattern of the as-prepared metastudtite ($\text{UO}_4 \cdot 2\text{H}_2\text{O}$).

Table S1. Recycling behavior of uranium oxide samples as a catalyst for benzyl alcohol conversion to benzaldehyde^a

Sample	Conversion (%)			
	Fresh catalyst	1 st recycled	2 nd recycled	3 rd recycled
Bulk U ₃ O ₈	12.5	8.2	8.0	7.8
Porous U ₃ O ₈ aggregates	30.2	25.6	25.0	24.3
U ₃ O ₈ nanorods	19.6	15.5	14.8	14.0

^aAfter each experimental cycle, the catalyst was washed with ethanol several times and vacuum-dried at 100 °C for 24 h for re-use. The catalytic reaction for each cycle lasted for 8 h. Taking into account the catalyst loss during the recycling, the catalytic performance of the samples is quite stable, especially for the recycled samples. In other words, the catalysts are recyclable.