

## Supporting Information

### **One-dimensional CeO<sub>2</sub> nanostructures from Ce-BTC MOFs as fluorescent probes for hexavalent chromium**

Samrudhi S. Gawade<sup>1</sup>, Sneha V. Koparde<sup>2</sup>, Sonali S. Sadavar<sup>2</sup>, Dhanshri A. Naik<sup>2</sup>, Onkar S. Nille<sup>2</sup>, Samadhan P. Pawar<sup>3</sup>, Govind B. Kolekar<sup>2</sup>, Tukaram D. Dongale<sup>1,4</sup>, Sagar D. Delekar<sup>2</sup>, Pramod A. Koyale<sup>1,\*</sup>

<sup>1</sup>School of Nanoscience and Technology, Shivaji University, Kolhapur 416 004 MS, India

<sup>2</sup>Department of Chemistry, Shivaji University, Kolhapur 416 004 MS, India

<sup>3</sup>Rajarshi Chhatrapati Shahu College, Kolhapur 416003 MS, India

<sup>4</sup>School of Electrical Engineering, Korea University, Anam-ro 145, Seongbuk-gu, Seoul 02841, Republic of Korea

**\*E-mail: pramodkoyale96@gmail.com (Pramod A. Koyale)**

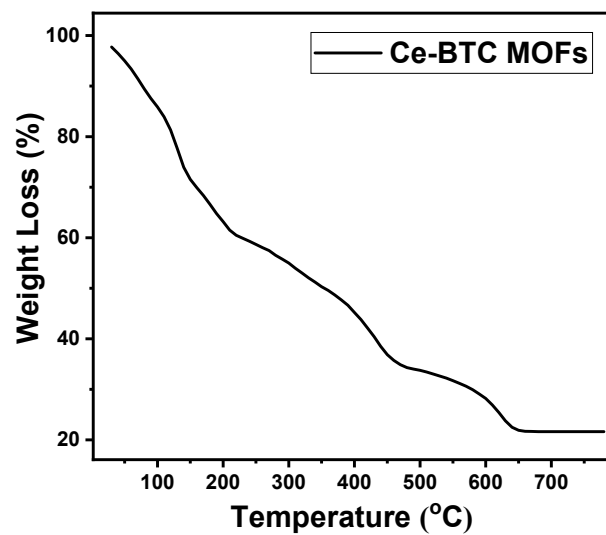


Figure S1. TGA curve of bare Ce-BTC MOF.

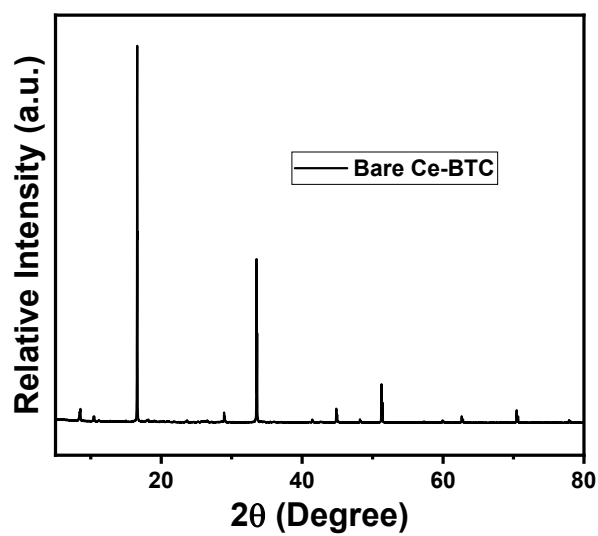
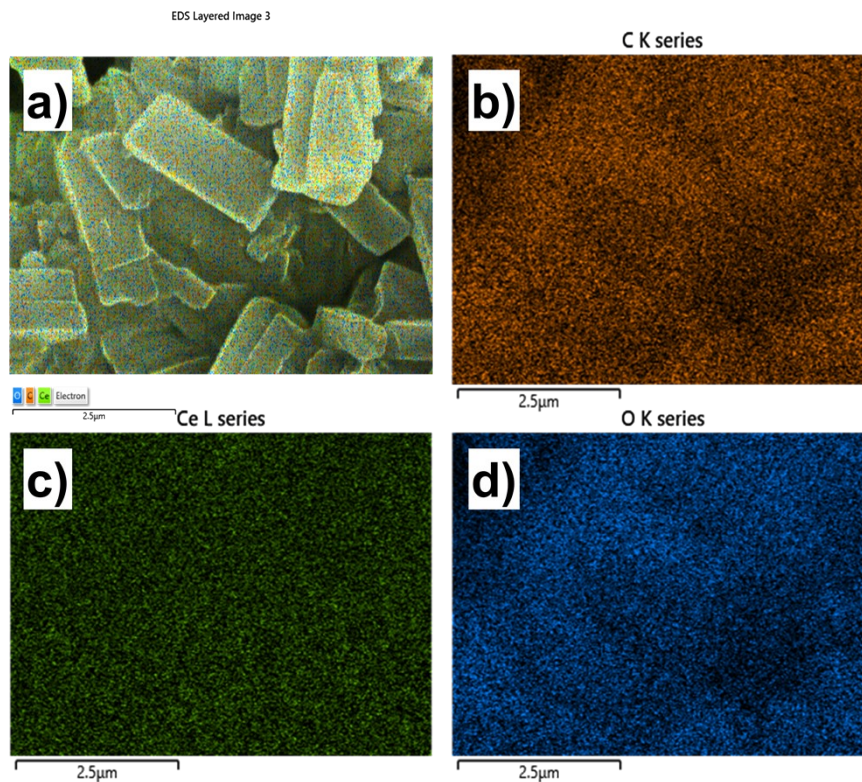
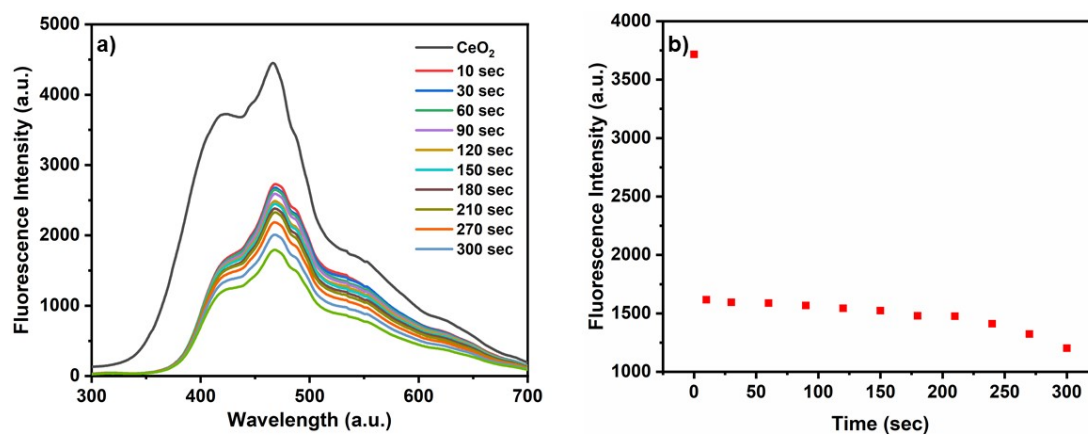


Figure S2. XRD pattern of bare Ce-BTC MOF.



**Figure S3.** Images of elemental mapping for Ce-BTC MOF consisting of Ce, C, and O.



**Figure S4.** Fluorescence quenching of CeO<sub>2</sub> after addition of Cr<sup>6+</sup> (10 μg/mL) from 0-300 seconds.