

Supporting Information

Light-Enhanced Oxidative Adsorption Desulfurization of Diesel Fuel over TiO₂-ZrO₂ Mixed Oxides

Sukanya Thepwattee^{1,2}, and Chunshan Song^{*1,3}

1 Clean Fuels and Catalysis Program, EMS Energy Institute, and John and Willie Leone Family Department of Energy and Mineral Engineering, The Pennsylvania State University, 209 Academic Projects Building, University Park, State College, PA 16802, USA

2 Department of Industrial Chemistry, Faculty of Applied Science, King Mongkut's University of Technology North Bangkok, Bangkok 10800, Thailand

3 Department of Chemistry, Faculty of Science, the Chinese University of Hong Kong, Shatin, Hong Kong SAR, China

* Corresponding author. *E-mail address*: ChunshanSong@cuhk.edu.hk (C. Song).

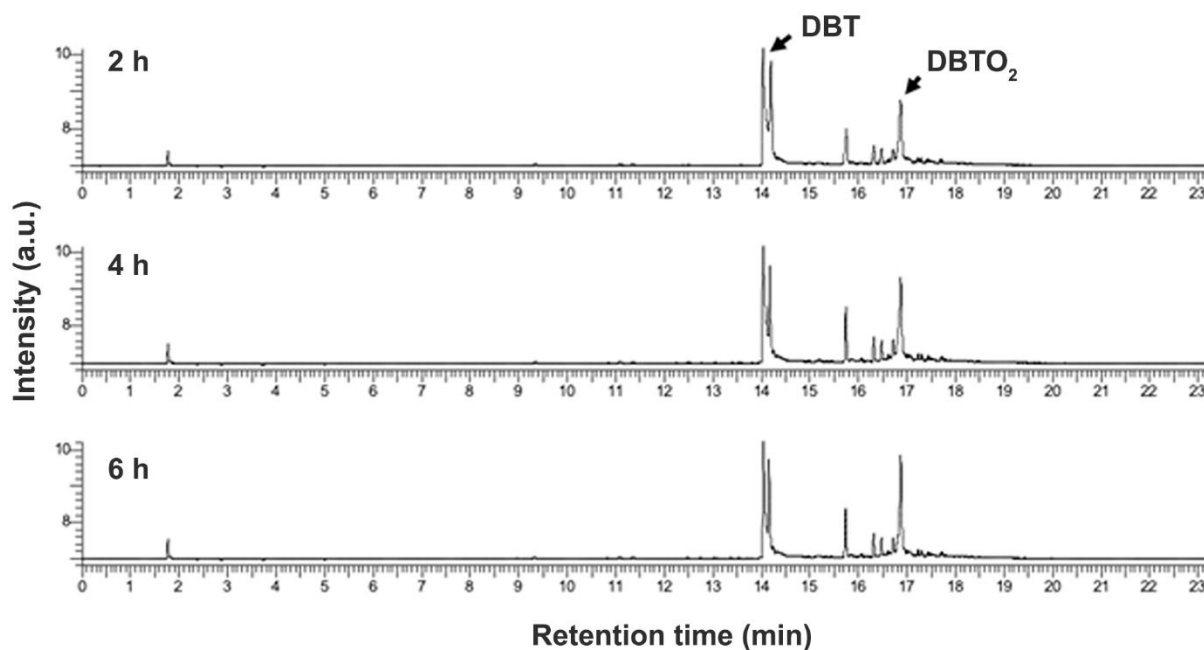


Figure S1. GC-PFPD chromatograms of 400 ppmw DBT/diesel after 2 h, 4 h and 6 h of light irradiation using 15 W Xe-lamp at 30 °C.

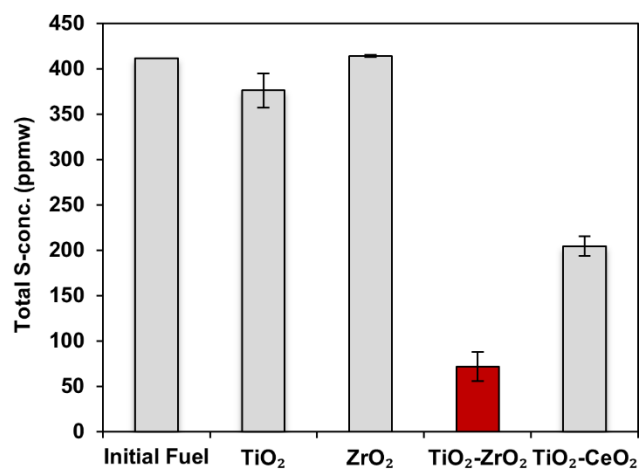


Figure S2. Desulfurization performance of TiO₂, ZrO₂, TiO₂-ZrO₂ (Ti_{0.8}Zr_{0.2}O₂) and TiO₂-CeO₂ (Ti_{0.9}Ce_{0.1}O₂) under 2-step DeS: 5 h of light irradiation at 80 °C followed by 2 h of adsorption at 30 °C.