

Supporting Information

Low-Temperature Propylene Epoxidation Activity of CuO-CeO₂ Catalyst with CO + O₂: Role of Metal-Support Interaction on the Reducibility and Catalytic Property of CuO_x Species

Tinku Baidya^{a,*}, Tanmoy Mazumder^a, Konstantin Yu. Koltunov^{b,c}, Pravin R. Likhari^{a,*}, Adam H. Clark^d, Khushubo Tiwari^e, Vladimir I. Sobolev^b, Soumitra Payra^f, Toru Murayama^g, Mingyue Ling^g, Parthasarathi Bera^{h,*}, Sounak Roy^f, Krishnan Biswas^e, Olga Safonova^d, Bolla Srinivasa Rao^a, Masatake Haruta^g

^aCatalysis & Fine Chemicals Division, CSIR–Indian Institute of Chemical Technology, Hyderabad 500007, India

^bBoreskov Institute of Catalysis, Pr. Ak. Lavrentieva 5, Novosibirsk 630090, Russia

^cNovosibirsk State University, Pirogova, 2, Novosibirsk, 630090, Russia

^dPaul Scherrer Institute, 5253 Villigen, Switzerland

^eDepartment of Materials Science and Engineering, Indian Institute of Technology Kanpur, Kanpur 208016, India

^fBirla Institute of Technology and Science Pilani, Hyderabad Campus, Hyderabad 500078, India

^gDepartment of Applied Chemistry, Graduate School of Urban Environmental Sciences, Tokyo Metropolitan University, 1-1 Minami-Osawa, Hachioji, Tokyo 192-0397, Japan

^hSurface Engineering Division, CSIR–National Aerospace Laboratories, Bengaluru 560017, India

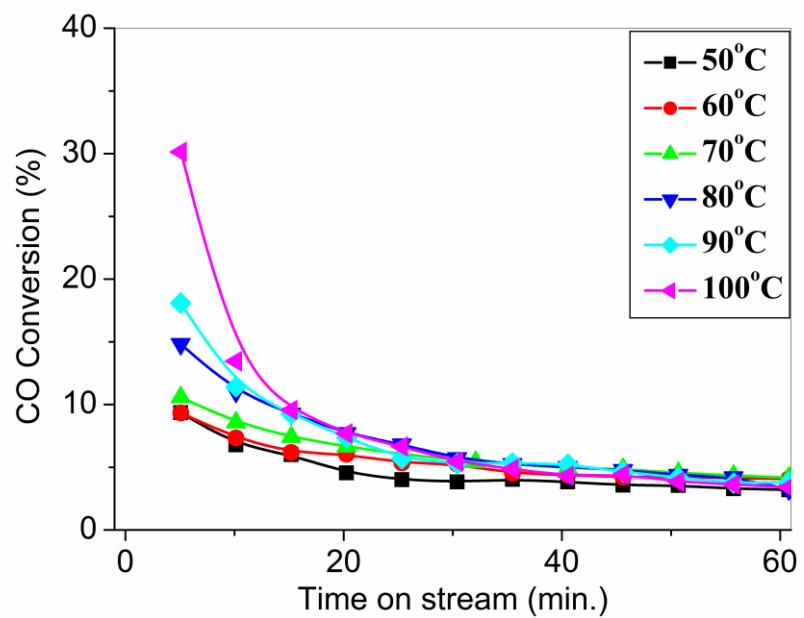


Fig. S1. CO conversion in time on stream for propylene epoxidation with CO/O₂ mixture at different temperatures.

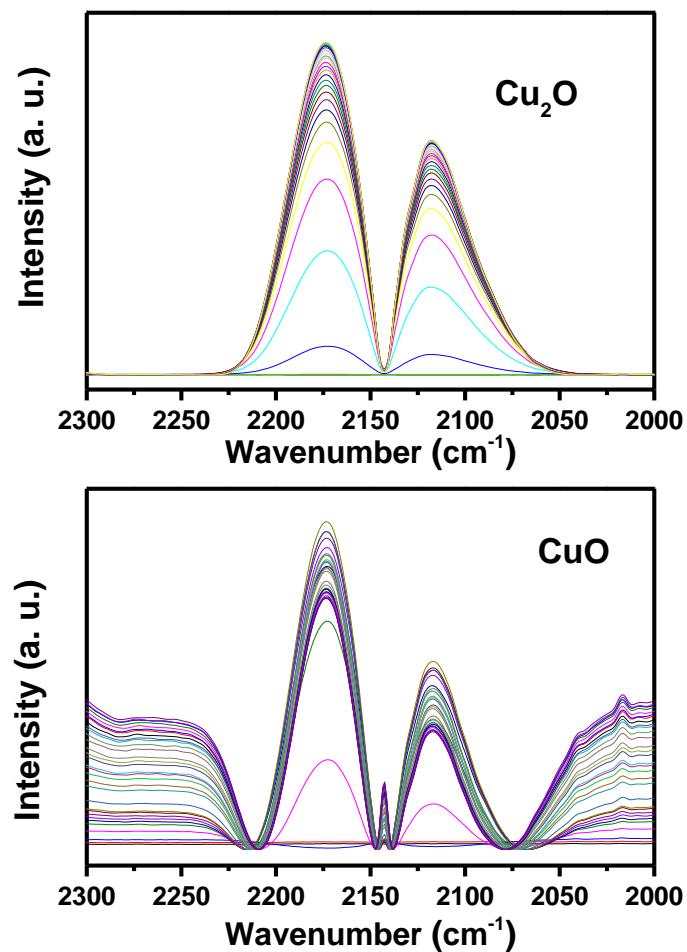


Fig. S2. DRIFTS studies of CO adsorption over CuO and Cu₂O at 25 °C.