Electronic Supplementary Material (ESI) for Materials Advances. This journal is © The Royal Society of Chemistry 2024

Electronic Supplementary Information (ESI)

Porous ceria materials for efficient direct conversion of carbon dioxide and methanol to dimethyl carbonate

Zhuxian Yang,^a Justin Tay Zheng,^b Xinhuan Lu,^c Monica Mengdie Lin,^b Dongming Cai,^d Yankun Wang,^a Wen-Yueh Yu,*^b Yanqiu Zhu^a and Yongde Xia*^a

^a Department of Engineering, Faculty of Environment, Science and Economy, University of Exeter, Exeter, EX4 4QF, United Kingdom. E-mail: <u>y.xia@exeter.ac.uk</u>

b Department of Chemical Engineering, National Taiwan University, No.1, Sec. 4 Roosevelt Rd. Taipei, Taiwan, 106335 Taiwan. E-mail: wenyueh@ntu.edu.tw

^c School of Chemical Engineering, Hubei University, 368 Youyi Dadao, Wuchang Qu, Wuhan, Hubei Province, 430062, P. R. China

^d Hubei Key Laboratory of Energy Storage and Power Battery, School of Mathematics, Physics and Optoelectronics Engineering, Hubei University of Automotive Technology Shiyan, 442002, P. R. China

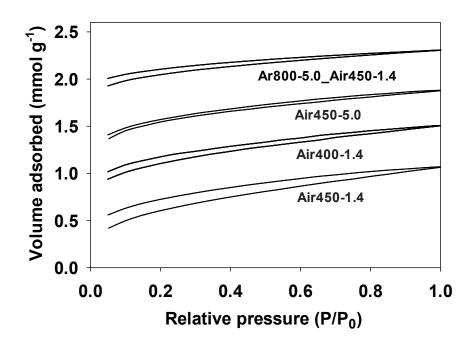


Fig. S1 CO₂ adsorption isotherms at 25 °C of CeO₂ samples prepared under various calcination conditions which are indicated in their names. The isotherms are offset by 0.55 for Air400-1.4, 1.0 for Air450-5.0 and 1.7 for Ar800-5.0_Air450-1.4.