

Supplementary Materials
for

**Dehydration of Bioethanol to Ethylene over H-ZSM-5 Catalysts: A Scale-Up
Study**

Sanggil Moon ¹, Ho-Jeong Chae ^{1,2,*} and Min Bum Park ^{3,*}

¹ CO₂ Energy Vector Research Group, Carbon Resources Institute, Korea Research Institute of Chemical Technology, Daejeon 34114, Korea

² Department of Green Chemistry and Biotechnology, University of Science and Technology, Daejeon 34113, Korea

³ Innovation Center for Chemical Engineering, Department of Energy and Chemical Engineering, Incheon National University, Incheon 22012, Korea

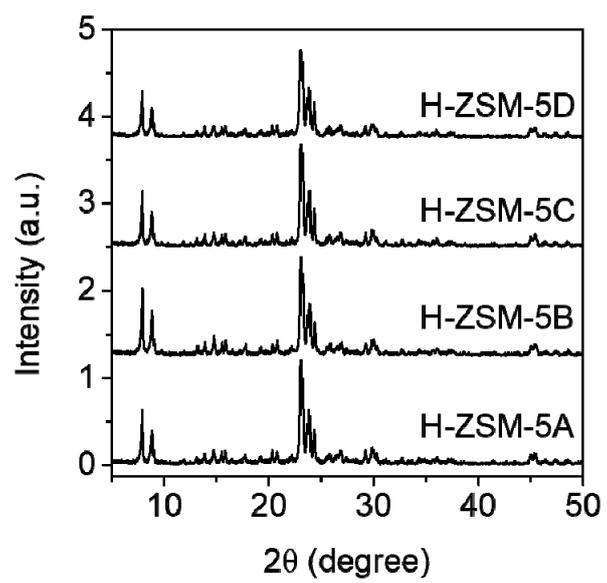


Figure S1. Powder XRD patterns of H-ZSM-5A, H-ZSM-5B, H-ZSM-5C, and H-ZSM-5D.

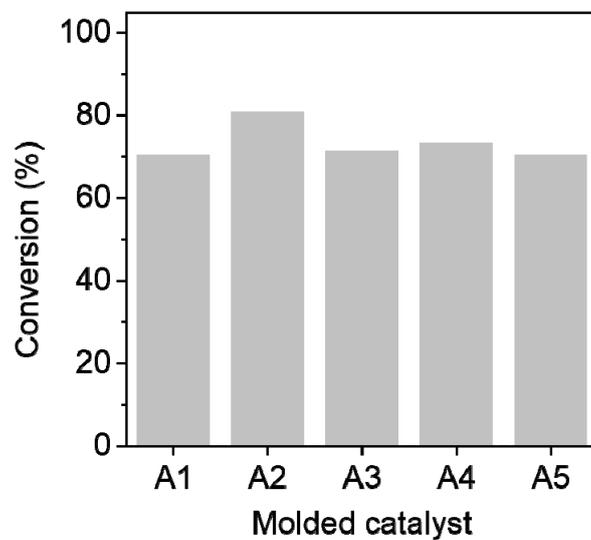


Figure S2. Ethanol conversion obtained after 3 h on steam in dehydration of bioethanol over 2 g of molded H-ZSM-5A1, H-ZSM-5A2, H-ZSM-5A3, H-ZSM-5A4, and H-ZSM-5A5 catalysts at 250 °C and 5 h⁻¹ WHSV.