



Title	Microporous Acidic Cesium Salt of 12-Tungstosilicic Acid Cs ₃ HSiW ₁₂ O ₄₀ as a Size-selective Solid Acid Catalyst
Author(s)	Kamiya, Yuichi; Sano, Shogo; Miura, Yu-ki et al.
Citation	Chemistry Letters, 39(8), 881-883 https://doi.org/10.1246/cl.2010.881
Issue Date	2010-08
Doc URL	https://hdl.handle.net/2115/48310
Type	journal article
File Information	Supporting_Information.pdf, Supporting Information



Supporting Information for

**Microporous Acidic Cesium Salt of 12-Tungstosilicic Acid $\text{Cs}_3\text{HSiW}_{12}\text{O}_{40}$
as a Size-selective Solid Acid Catalyst**

Yuichi Kamiya,^{*1} Shogo Sano,² Yu-ki Miura,² Yohei Uchida,² Yuki Ogawa,² Yukari Iwase,² Toshio Okuhara¹

¹Research Faculty of Environmental Earth Science, Hokkaido University, Sapporo 060-0810

²Graduate School of Environmental Science, Hokkaido University, Sapporo 060-0810

Figure

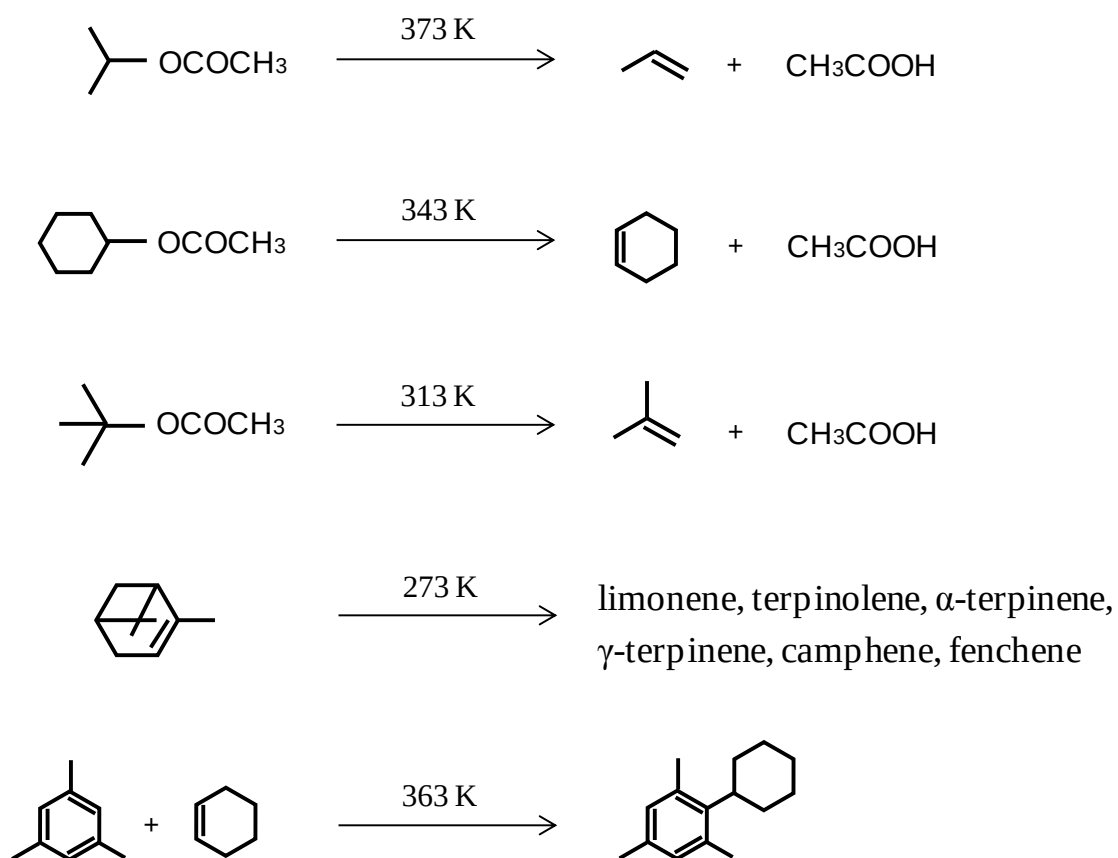


Figure S1. Catalytic reactions in a liquid-solid reaction system conducted in the present study.

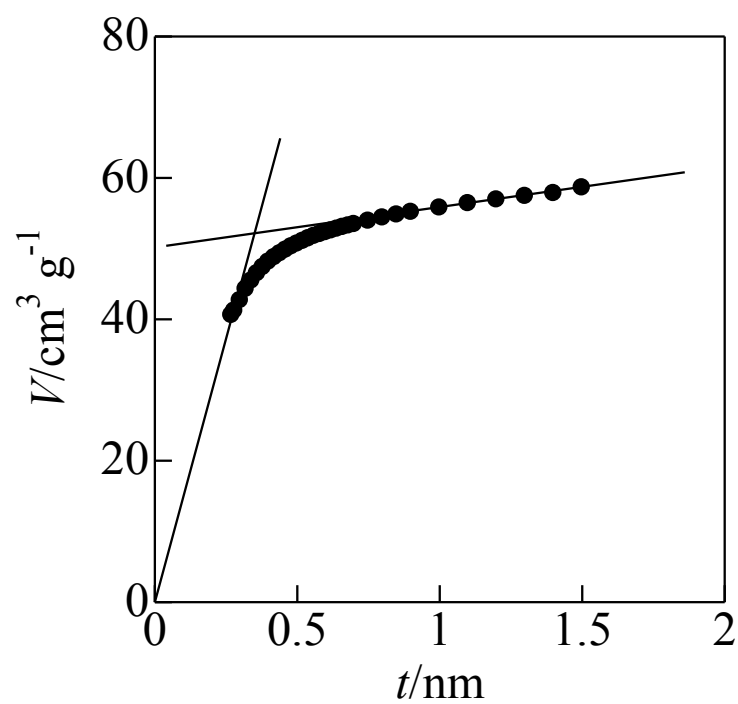


Figure S2. t -plot of an N_2 adsorption isotherm of $\text{Cs}_3\text{HSiW}_{12}\text{O}_{40}$.

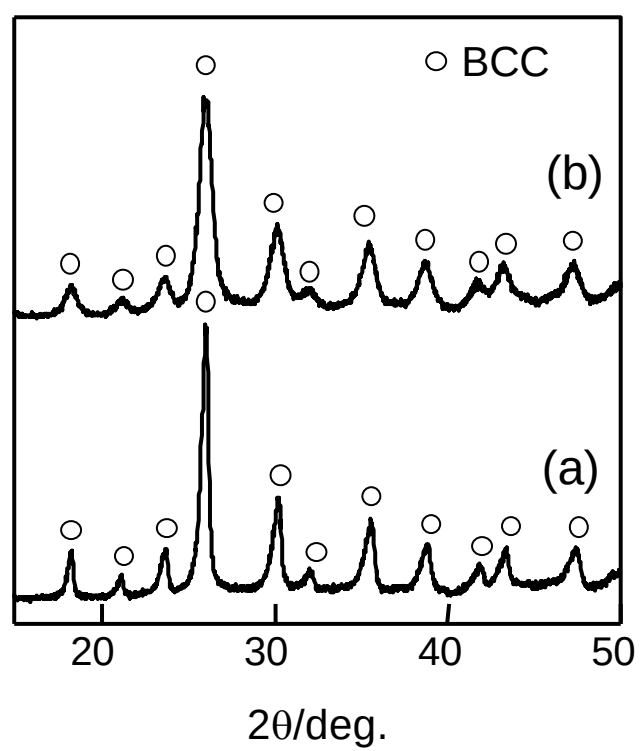


Figure S3. Powder XRD patterns of (a) $\text{Cs}_3\text{HSiW}_{12}\text{O}_{40}$ and (b) $\text{Cs}_{2.1}\text{PW}_{12}\text{O}_{40}$ (Cs2.1-P).