Supporting Information

Zeolite-catalyzed one-pot sucrose-to-HMF transformation: Ge outperforms Sn, Zr, and Al sites

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[#]Equal contribution

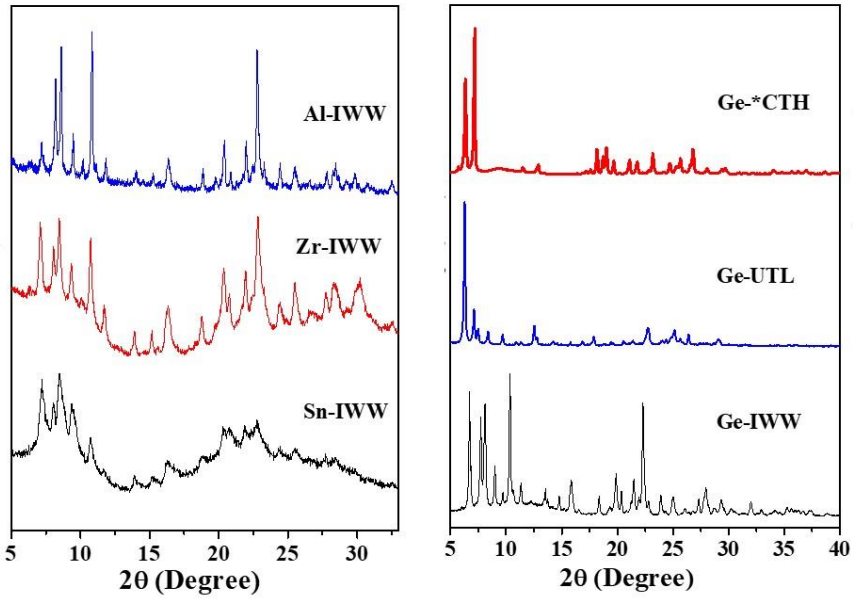

Figure S1: XRD patterns of zeolite catalysts under study

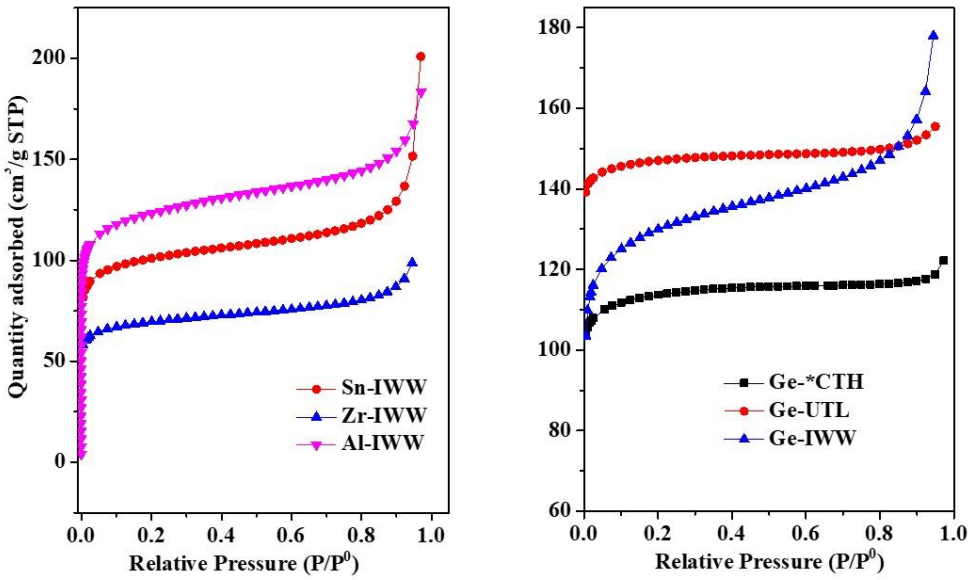

Figure S2: N_2 adsorption isotherms of zeolite catalysts under study

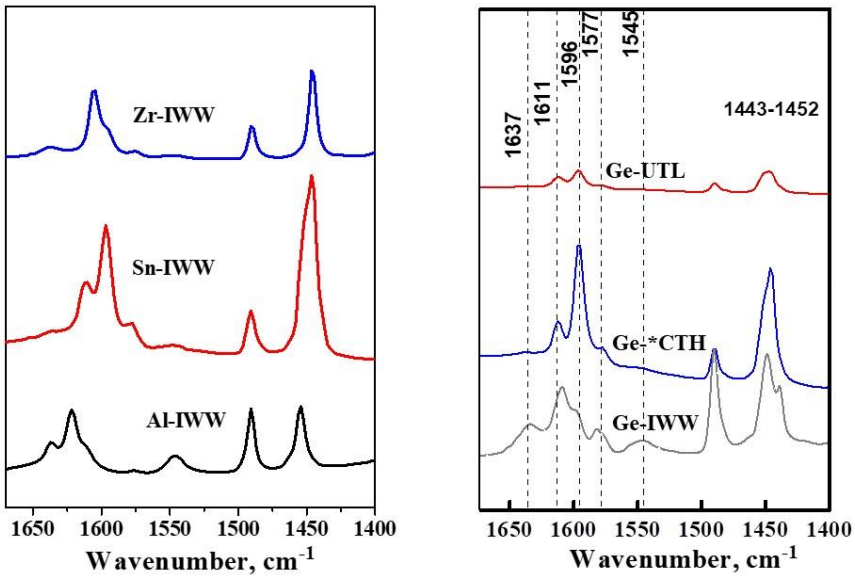

Figure S3: FTIR spectra of zeolite catalysts after pyridine adsorption

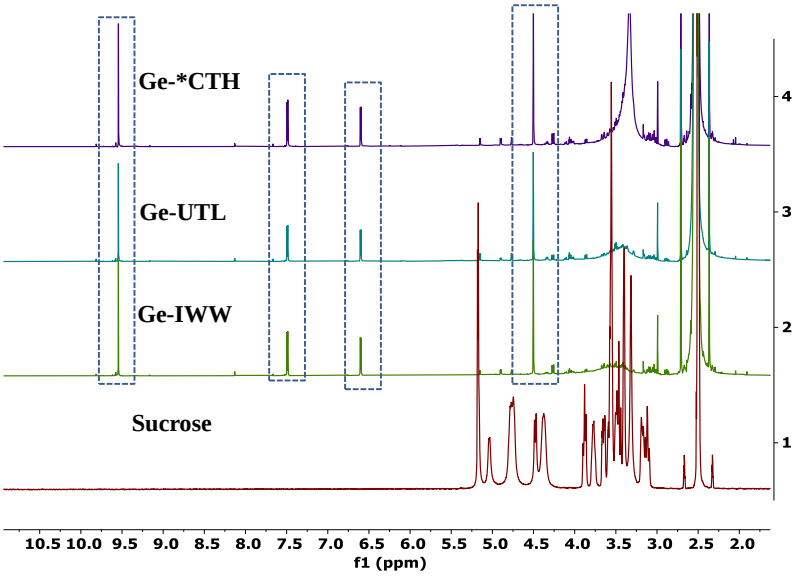

Figure S4. ^{1}H NMR spectra recorded during sucrose-to-HMF transformation over zeolite catalysts under study (dotted lines show the characteristic peaks of HMF).

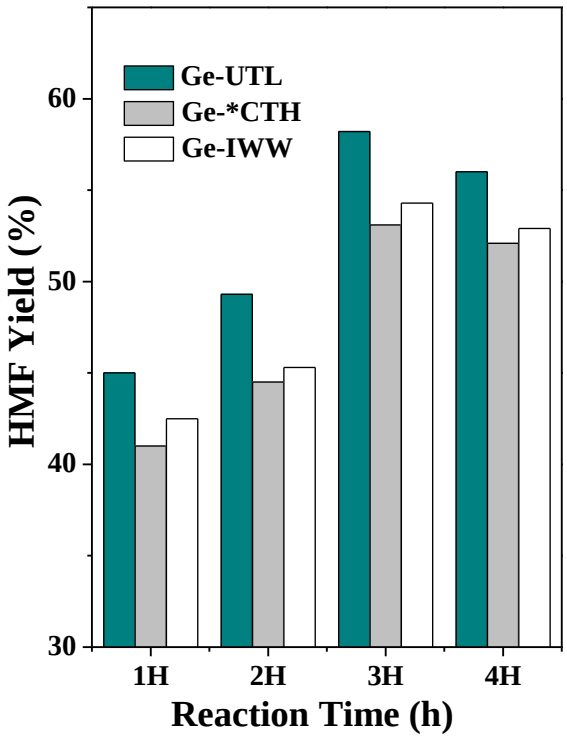

Figure S5: HMF yield at different time interval over zeolite catalysts under study. Reaction conditions: 1 mmol sucrose (10 wt % aqueous solution), 5 ml DMSO, 50 mg catalyst, 120 °C

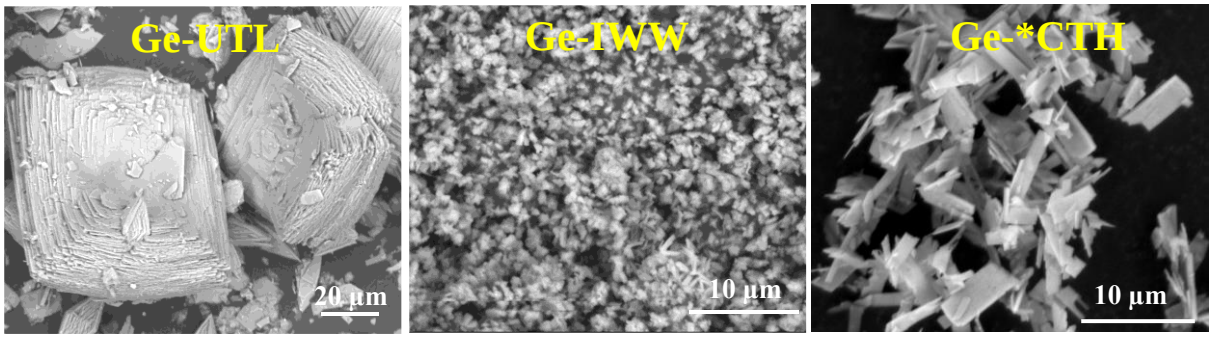

Figure S6: SEM images of germanosilicate zeolite catalysts under study.

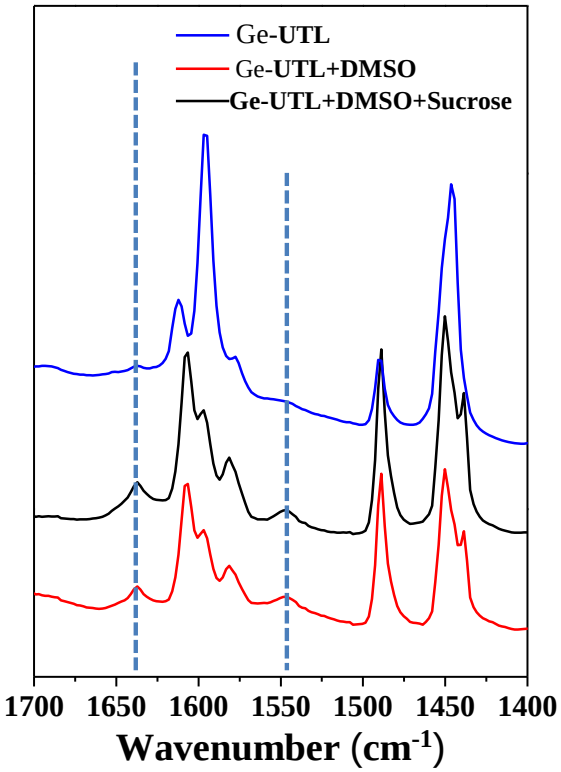

Figure S7: FTIR spectra of the Ge-UTL treated with DMSO and DMSO and sucrose after pyridine adsorption.

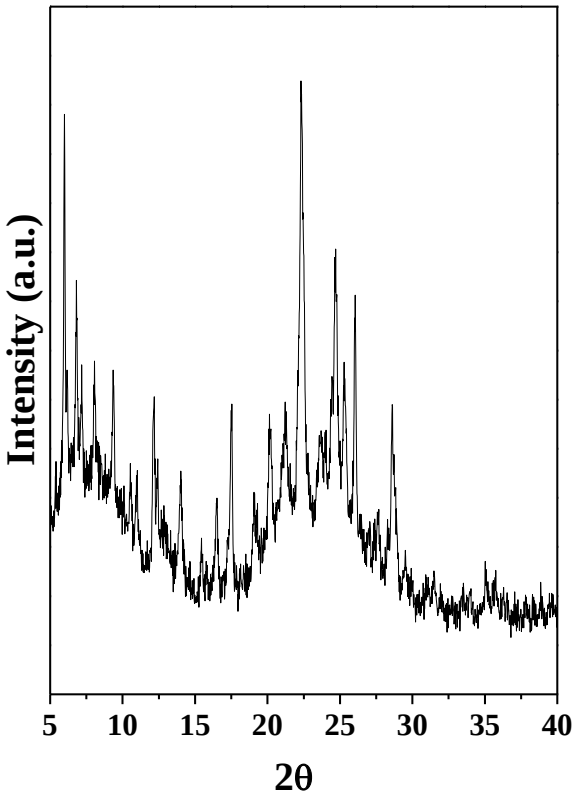

Figure S8: XRD pattern of Ge-UTL catalyst after the 3rd catalytic run.

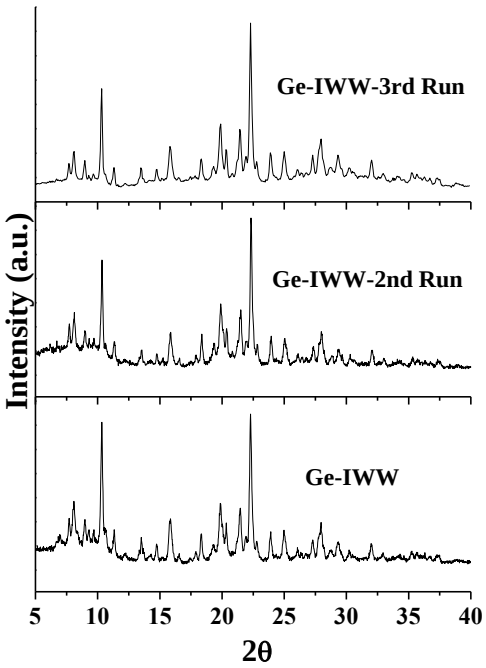

Figure S9: XRD pattern of Ge-IWW catalyst after 1 – 3 catalytic runs.