Electronic Supplementary Material (ESI) for Catalysis Science & Technology.

Supporting Information

Suface Lewis acid-promoted copper-based nanocatalysts for highly efficient and chemoselective hydrogenation of citral to unsaturated allylic alcohols

Wei Li, Guoli Fan, Lan Yang, Feng Li*

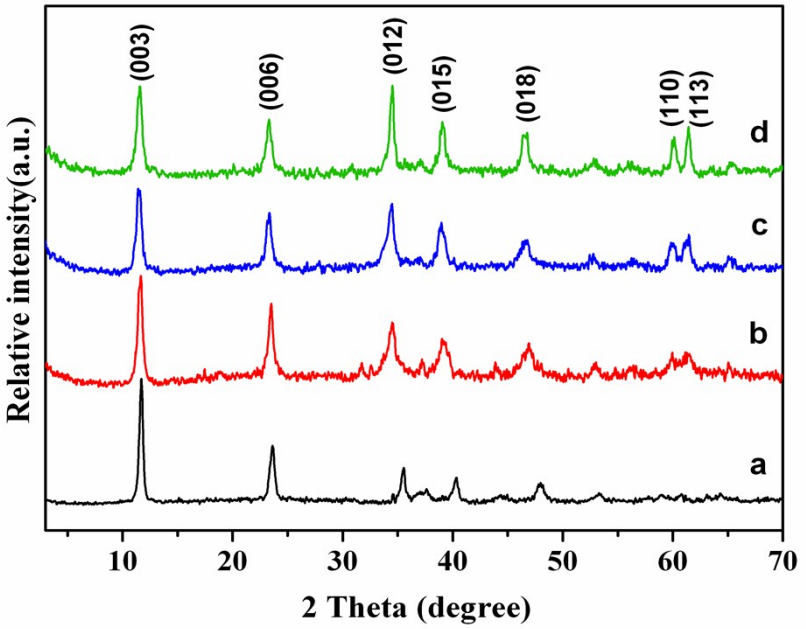

Fig. S1 XRD patterns of CuZnAl-LDH precursors with different Zn/Al molar ratio of *x*: (a) *x*=0, (b) *x*=0.5, (c) *x*=1.0 and (d) *x*=1.5.

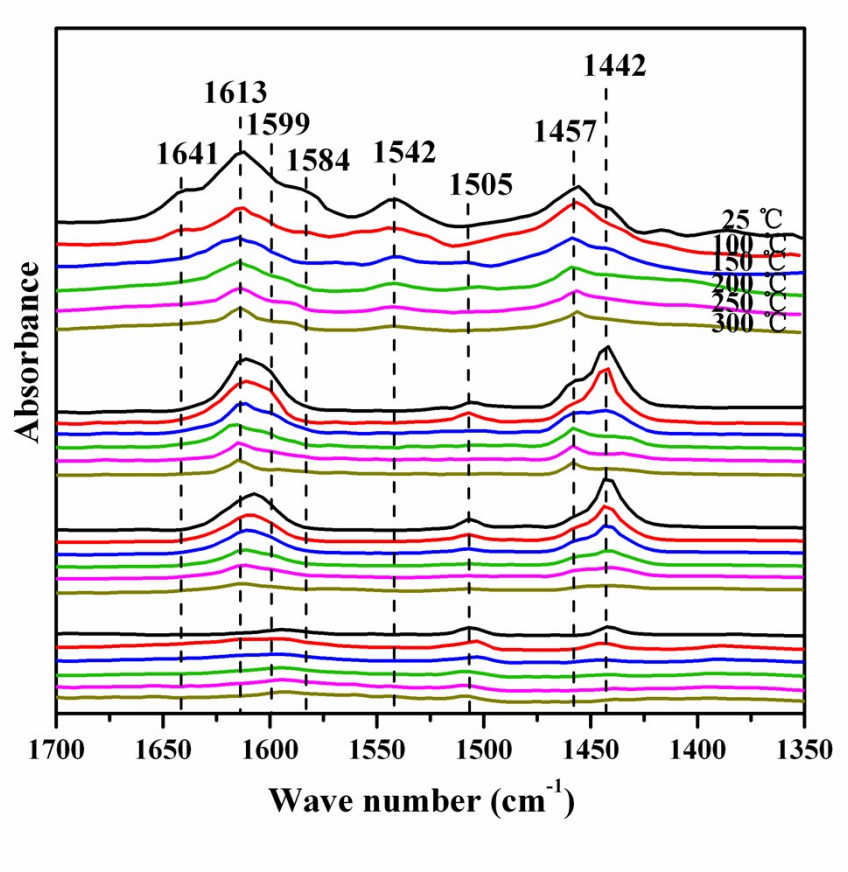

Fig. S2. Temperature-dependent Py-IR spectra of CuZn-*x* samples. (a) *x*=0, (b) *x*=0.5, (c) *x*=1, (d) *x*=1.5.

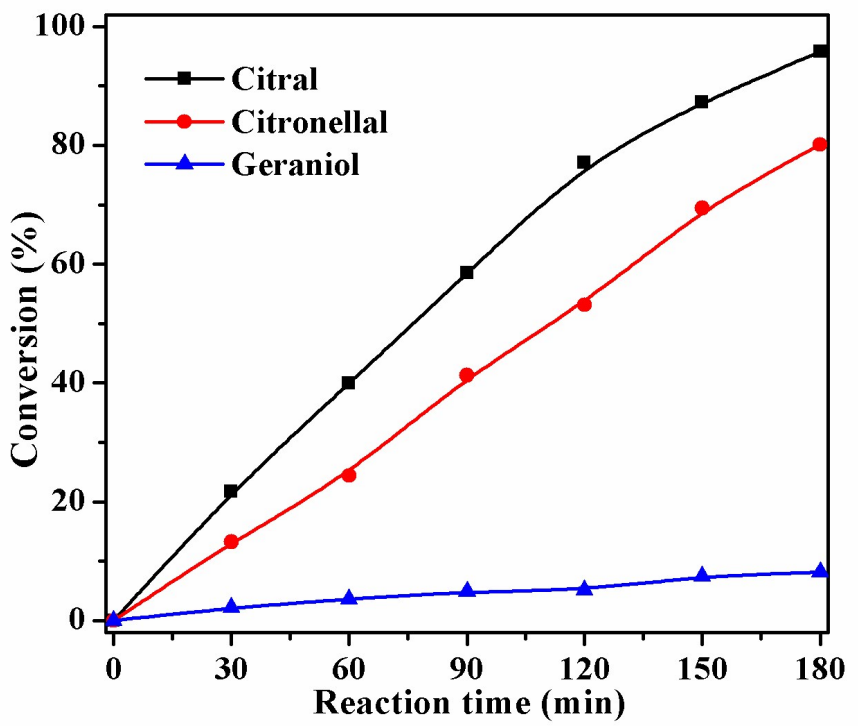

Fig. S3. Effect of reaction time on the conversion of citral, citronellal and geraniol during hydrogenation over the CuZn-1 catalyst at 80 °C and 1 MPa H_2

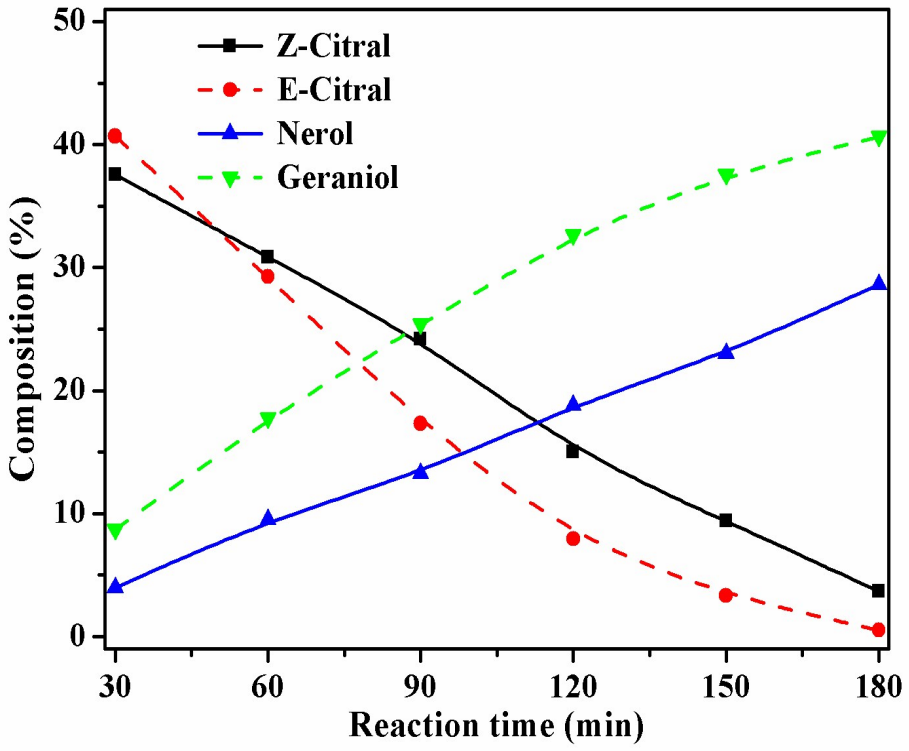

Fig. S4. The change in the compositions of citral isomers and allylic alcohol isomers during hydrogenation over the CuZn-1 catalyst at 80 °C and 1 MPa H_2

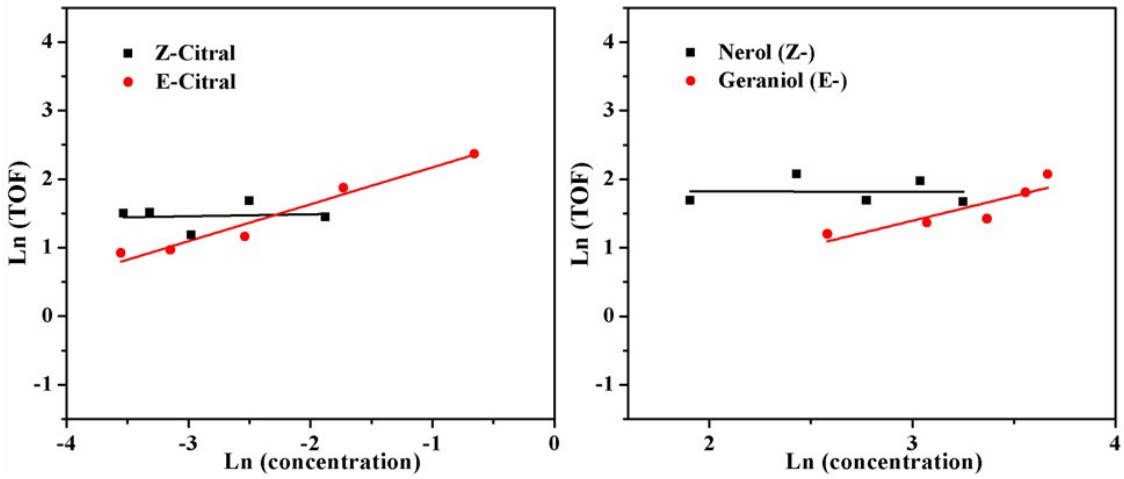

Fig. S5. Dependence of the TOF values of citral isomer converted and allylic alcohol isomers formed on the concentration of the respective isomer during hydrogenation over the CuZn-1 catalyst at 80 °C and 1 MPa H_2.