Supplementary information

An efficient and economical degradation strategy for epoxy thermoset based on low cost transesterification catalyst

Zhijun Yang, [a] *Shuhan Zhang* [a], *Huan Liang* [a], *Enjian He* [a], *Yixuan Wang* [a], *Ting Lei* [b], *Zhicheng Wu* [c], *Qiulin Chen* [d], *Fusheng Zhou* [d], *Yen Wei, *a and Yan Ji *a*

[a] *The Key Laboratory of Bioorganic Phosphorus Chemistry & Chemical Biology (Ministry of Education), Department of Chemistry, Tsinghua University, Beijing 100084, China.*

[b] *Department of Electrical Engineering, Tsinghua University, Beijing 100084, China.*

[c] *State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University, Xi'an 710049, China.*

[d] *3Electric Power Research Institute, China Southern Power Grid Co. Ltd, Guangzhou 510623, China.*

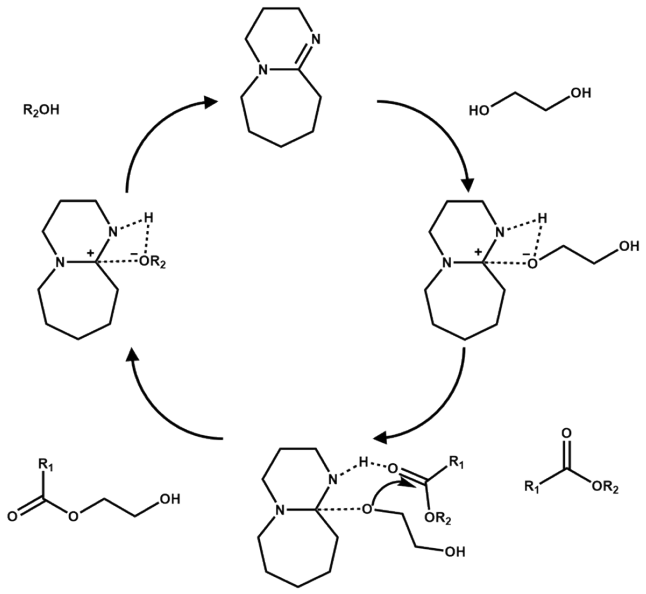

Figure S1. The proposed catalytic mechanism of alcoholysis reaction between ester and alcohol using DBU catalyst.

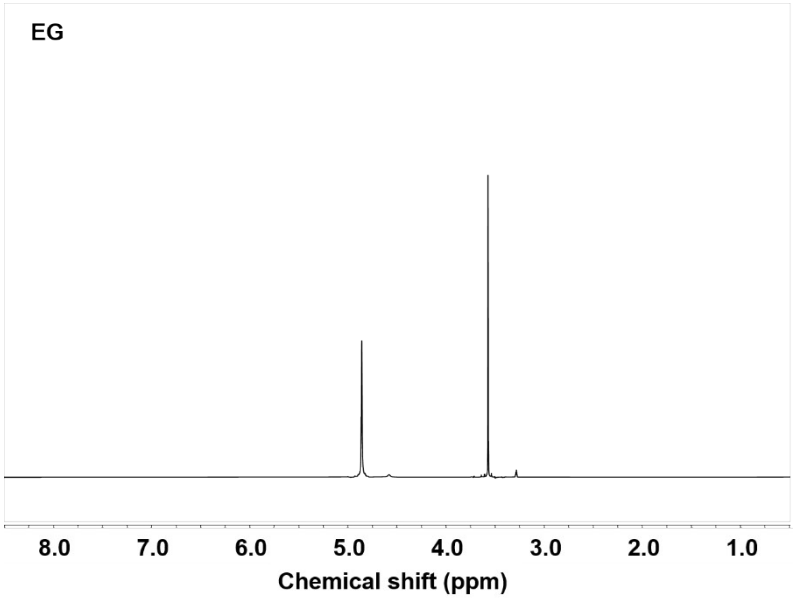

Figure S2. ^{1}H NMR spectrum of ethylene glycol (EG). ^{1}H NMR (400 MHz, Methanol-d_4) δ 4.58 (s, 4H), 3.57 (s, 3H).

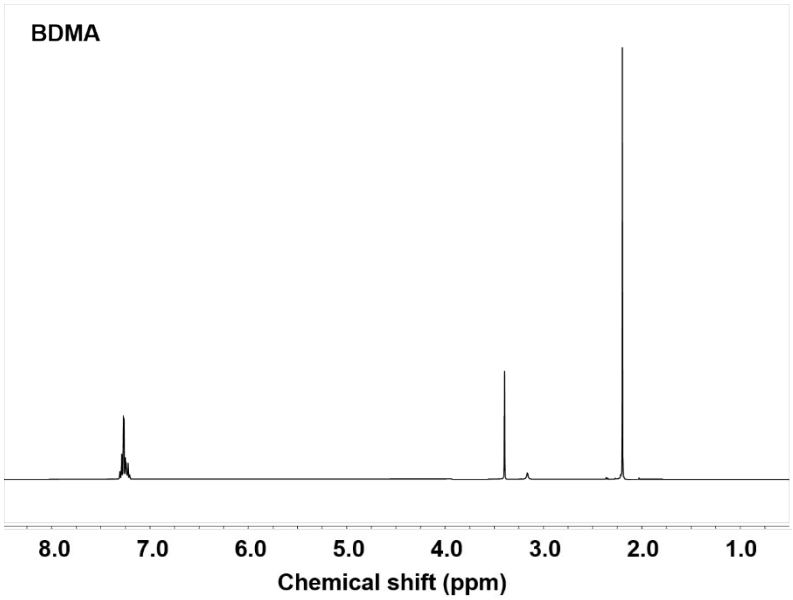

Figure S3. ^{1}H NMR spectrum of BDMA. ^{1}H NMR (400 MHz, Chloroform-*d*) δ 7.33 – 7.18 (m, 3H), 3.40 (s, 1H), 2.20 (s, 3H).

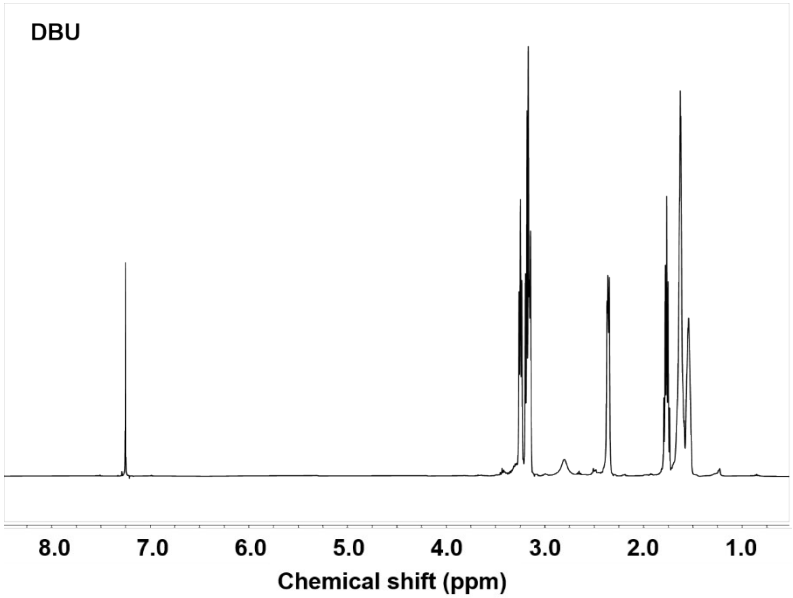

Figure S4. ^{1}H NMR spectrum of DBU. ^{1}H NMR (400 MHz, Chloroform-*d*) δ 3.25 (t, J = 5.6 Hz, 1H), 3.17 (dt, J = 9.0, 5.2 Hz, 2H), 2.39 – 2.32 (m, 1H), 1.77 (p, J = 6.0 Hz, 1H), 1.64 (dd, J = 7.3, 5.2 Hz, 1H), 1.54 (q, J = 5.0, 3.7 Hz, 1H).