

Supplementary Information

Selective recovery of light olefins from polyolefin catalyzed by Lewis acidic Sn-Beta zeolites without Brønsted acidity

Shinya Kokuryo^{*a}, Kazuya Tamura^a, Soshi Tsubota^a, Koji Miyake^{*a,b}, Yoshiaki Uchida^a, Atsushi Mizusawa^c, Tadashi Kubo^c, and Norikazu Nishiyama^{a,b}

^a*Division of Chemical Engineering, Graduate School of Engineering Science, Osaka University, 1-3 Machikaneyama, Toyonaka, Osaka 560-8531, Japan.*

^b*Innovative Catalysis Science Division, Institute for Open and Transdisciplinary Research Initiatives (ICS-OTRI), Osaka University, Suita, Osaka 565-0871, Japan*

^c*AC Biode Co., Ltd. 498-6 Iwakura Hanazono, Sakyo, Kyoto, 606-0024, Japan*

E-mail: skokuryo@cheng.es.osaka-u.ac.jp, kojimiyake@cheng.es.osaka-u.ac.jp

Supplementary figures

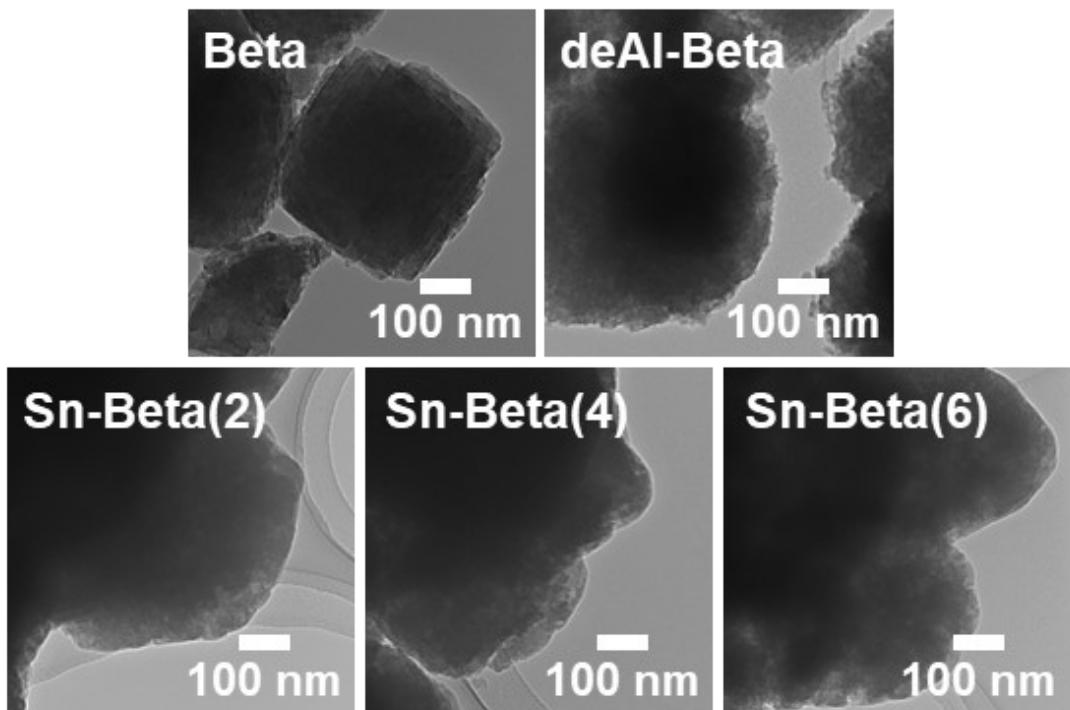


Fig. S1 TEM images of Beta, deAl-Beta, and Sn-Beta(x).

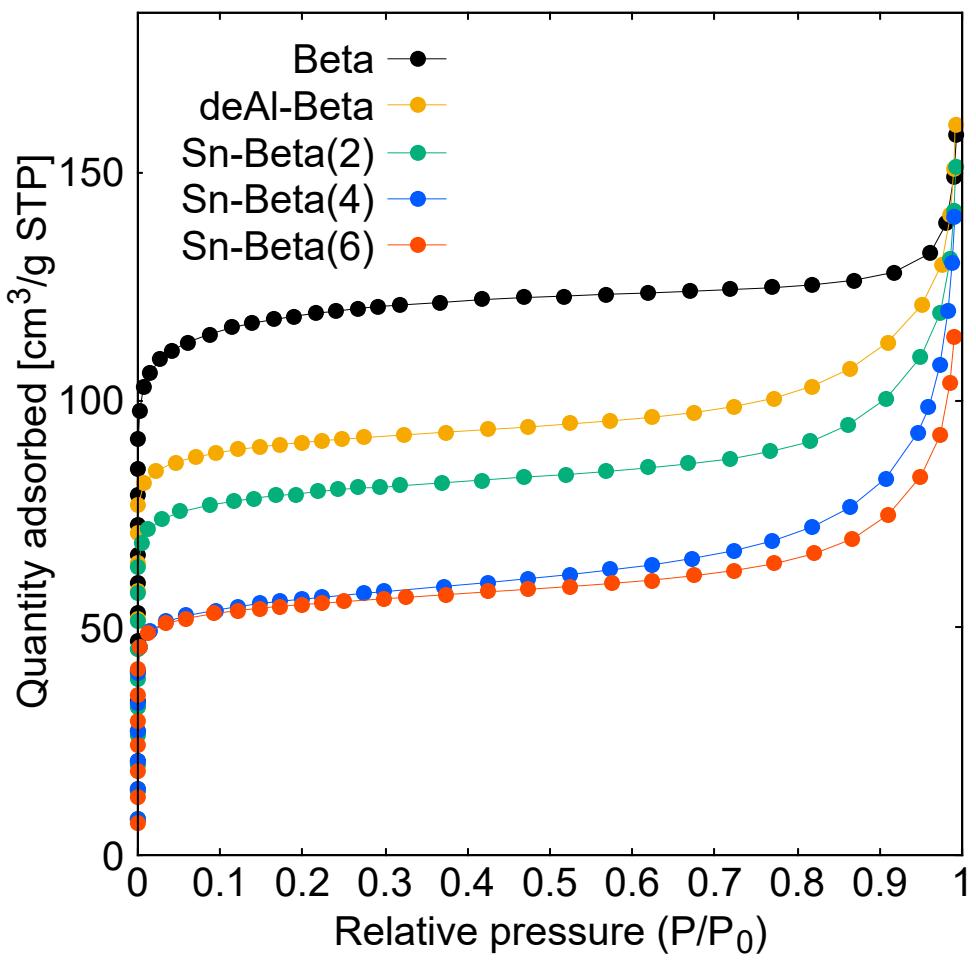


Fig. S2 Nitrogen adsorption isotherms of Beta, deAl-Beta, and Sn-Beta(x).

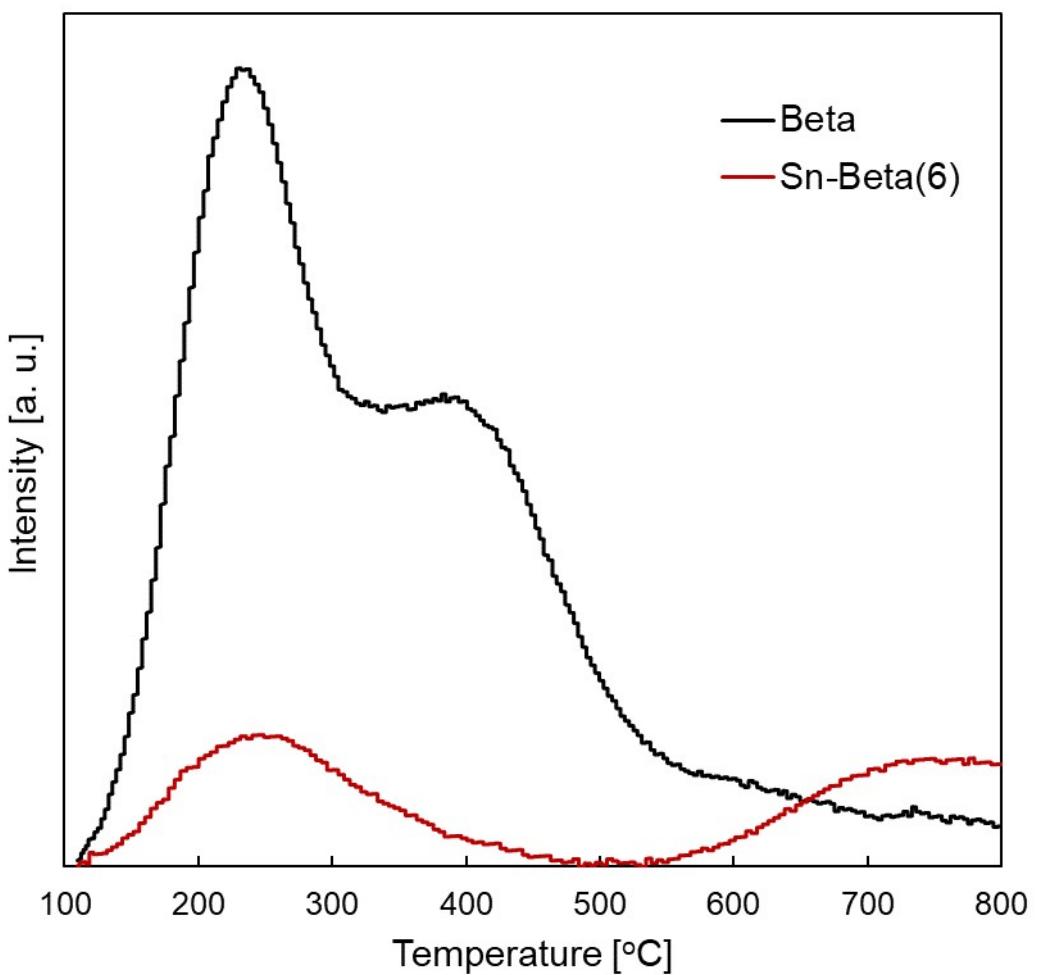


Fig. S3 NH₃-TPD profiles of Beta and Sn-Beta(6).

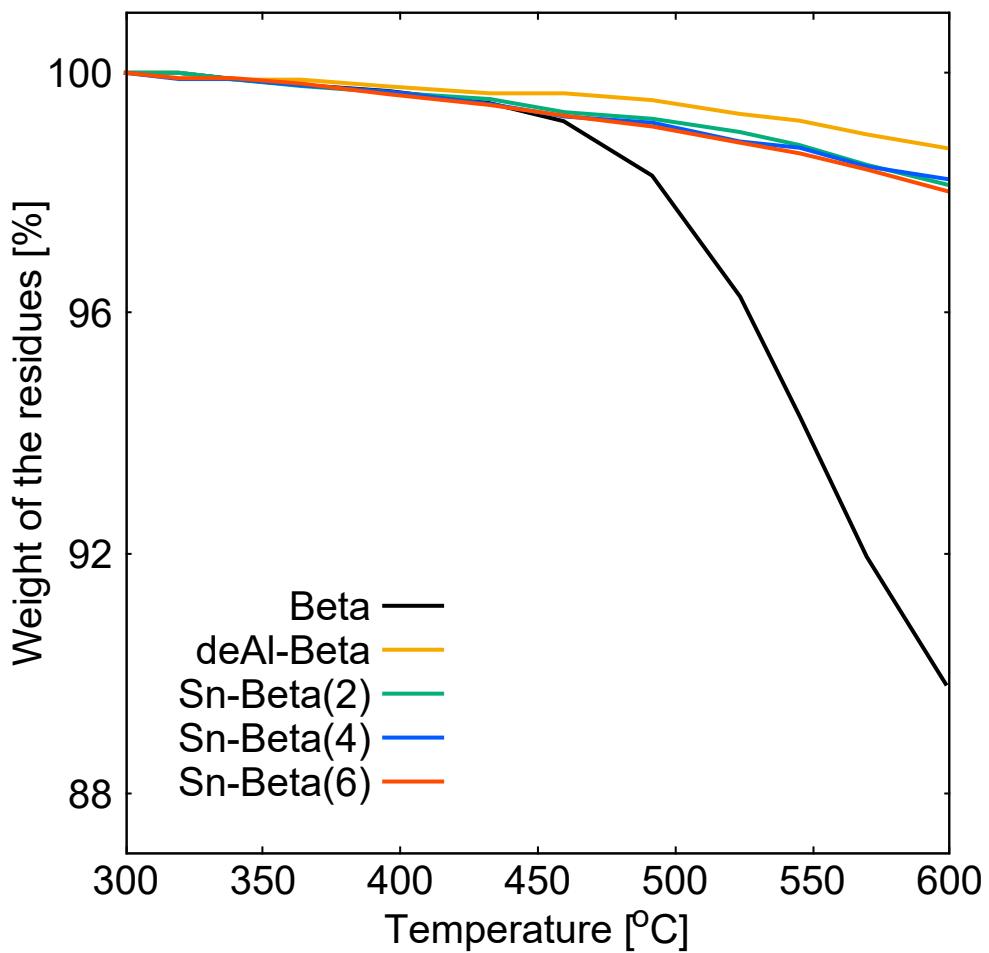


Fig. S4 TG curves of coke combustion in air after LDPE cracking over Beta, deAl-Beta, and Sn-Beta(x).

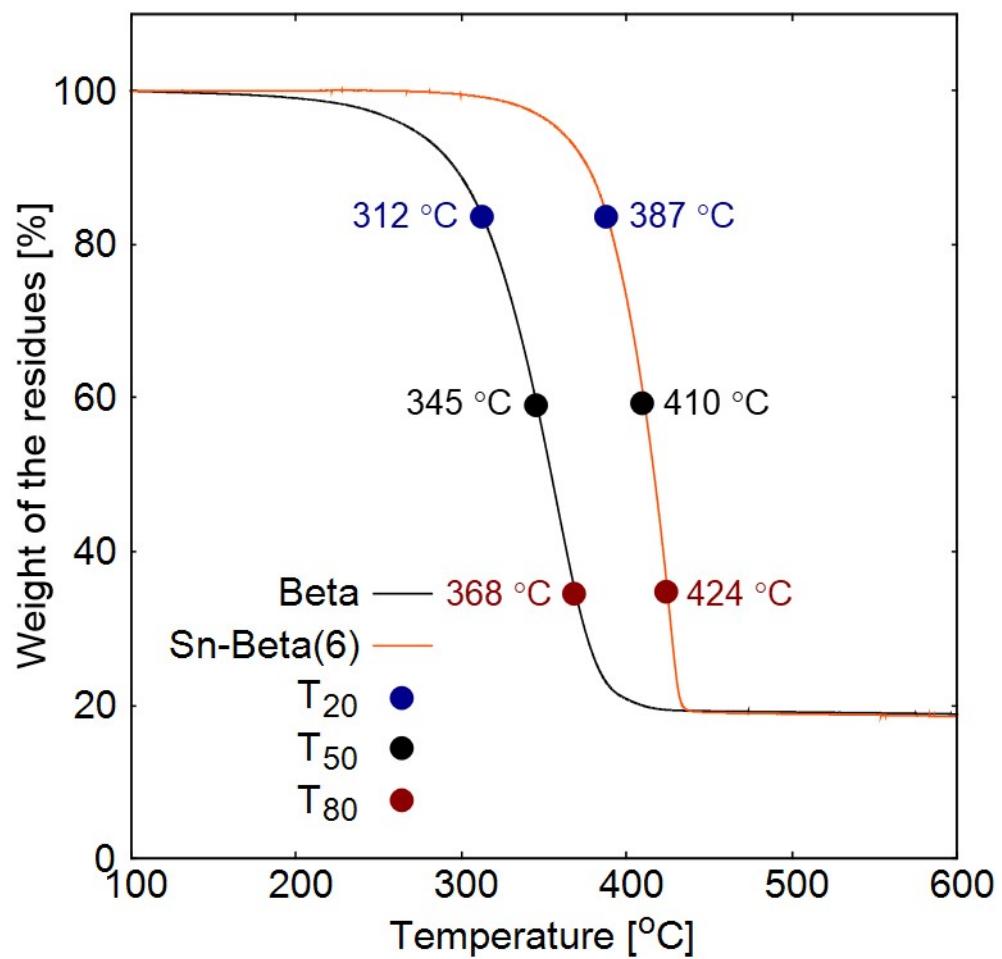


Fig. S5 The definition of T_y of Beta and Sn-Beta(6).