Electronic Supplementary Material (ESI) for Sustainable Energy & Fuels.

SUPPORTING INFORMATION

Assessment of acidity and zeolite porous structure on hydrocracking of HDPE

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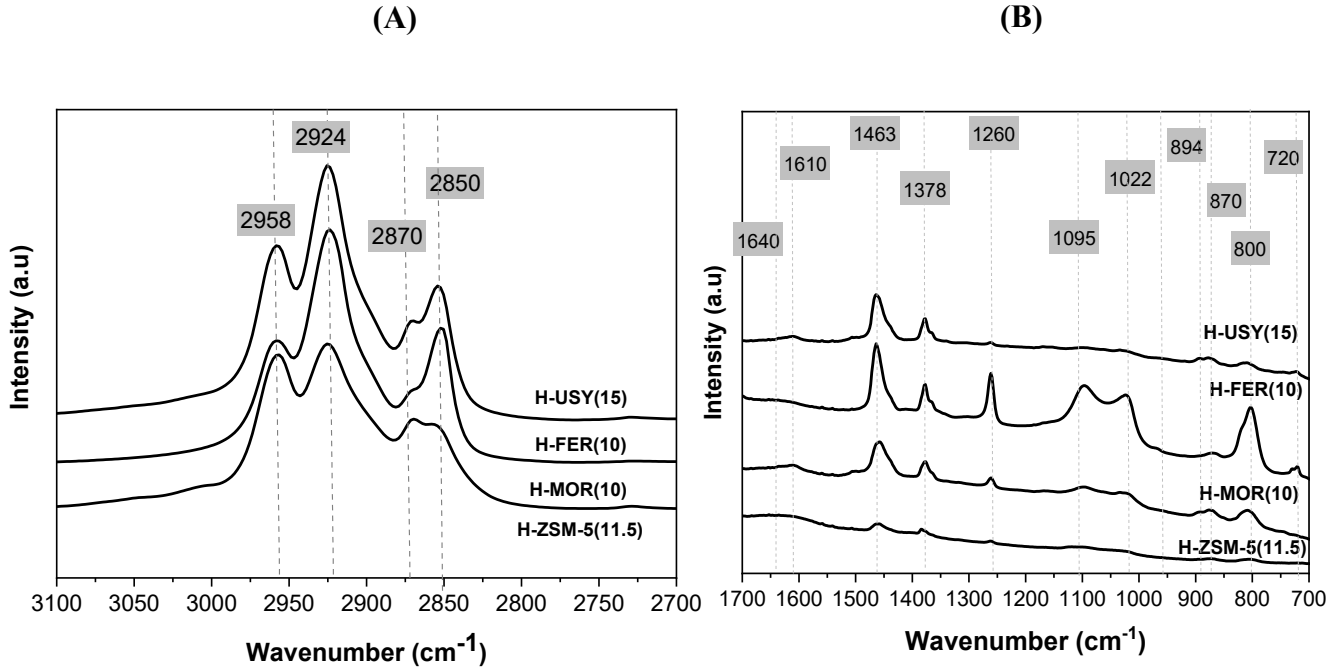

Figure S.1- FTIR analysis of liquid oil produced from catalytic cracking of HDPE under H_2 pressure over H-ZSM-5, H-MOR, H-USY and H-FER (T=300ºC, t=60min, PH_{2i}=20 bar, HDPE/catalyst mass ratio= 8/2)

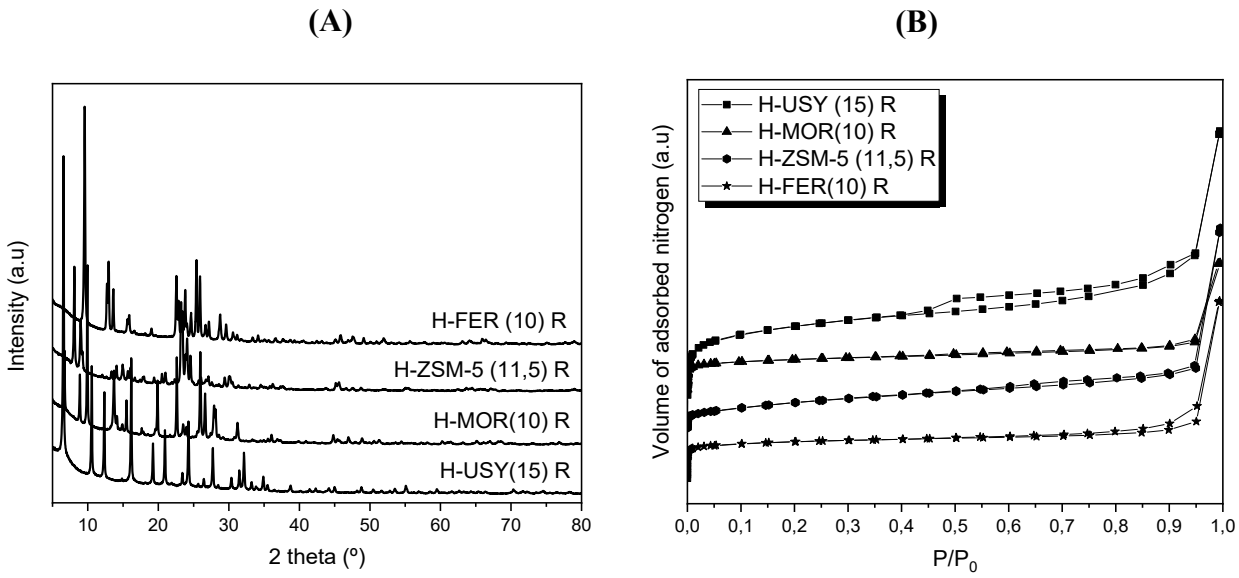

Figure S.2- PXRD diffractograms (A) and N_2 sorption isotherms (B) of H-ZSM-5, H-MOR, H-USY and H-FER after regeneration (R) procedure (T=800ºC, t=60min, air atmosphere).

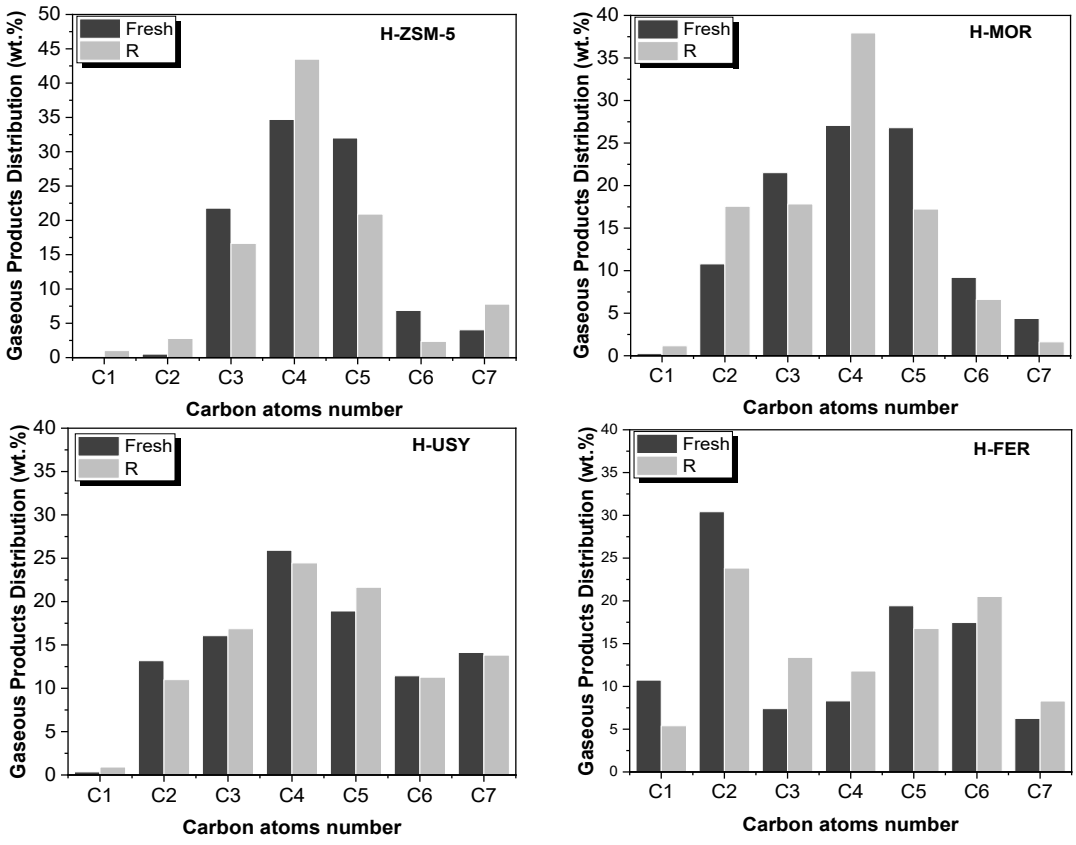

Figure S.3- Gaseous products distribution cracking of HDPE under H_2 pressure over regenerated H-ZSM-5, H-MOR, H-USY and H-FER (T=300ºC, t=60min, PH_{2i}=20 bar, HDPE/catalyst mass ratio= 8/2)

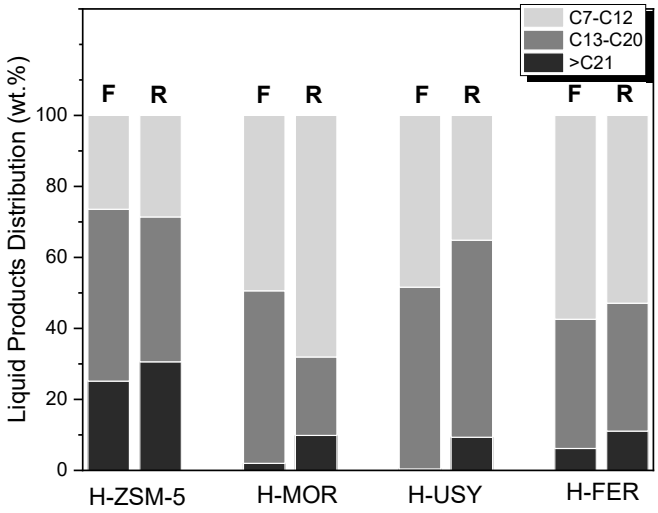

Figure S.4- Liquid products distribution cracking of HDPE under H_2 pressure over regenerated H-ZSM-5, H-MOR, H-USY and H-FER (T=300ºC, t=60min, PH_{2i}=20 bar, HDPE/catalyst mass ratio= 8/2)