

Chloroform conversion into ethane and propane by catalytic hydrodechlorination with Pd supported on activated carbons from lignin

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ELECTRONIC SUPPLEMENTARY INFORMATION

Table ES1. Characterization of the porous texture of the activated carbons.

Catalyst	A_{BET} (m^2/g)	V_{micro} (cm^3/g)	A_{ext} (m^2/g)	V_{poro} (cm^3/g)
Fe3-800	951	0.44	34	0.53
Zn3-500	1142	0.26	569	0.99
P3-500	559	0.10	348	0.45
Na4-800	2350	1.05	186	1.26
K4-800	3191	1.40	242	1.63

Table ES2. Bulk palladium content of the catalysts as determined by ICP.

Catalyst	Pd (wt.%)
Fe3-800-Pd	0.93
Zn3-500-Pd	1.07
P3-500-Pd	1.02
Na4-800-Pd	0.99
K4-800-Pd	0.96

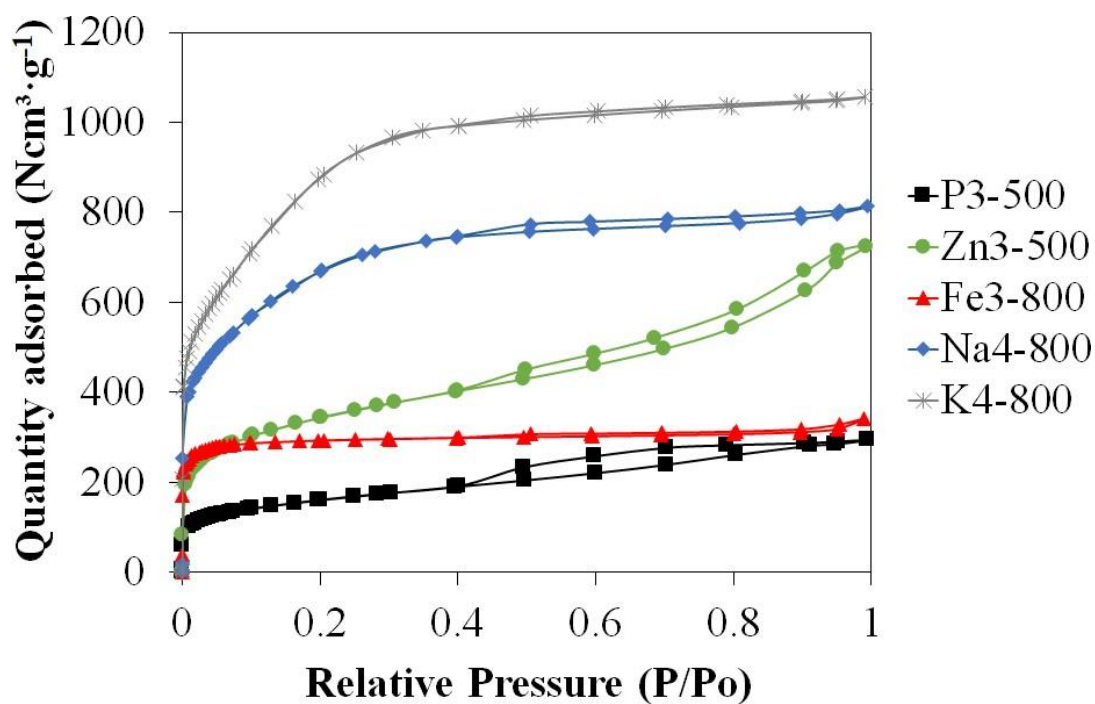


Figure ES1. N₂ adsorption-desorption isotherms at -196 °C of the activated carbons used as supports.

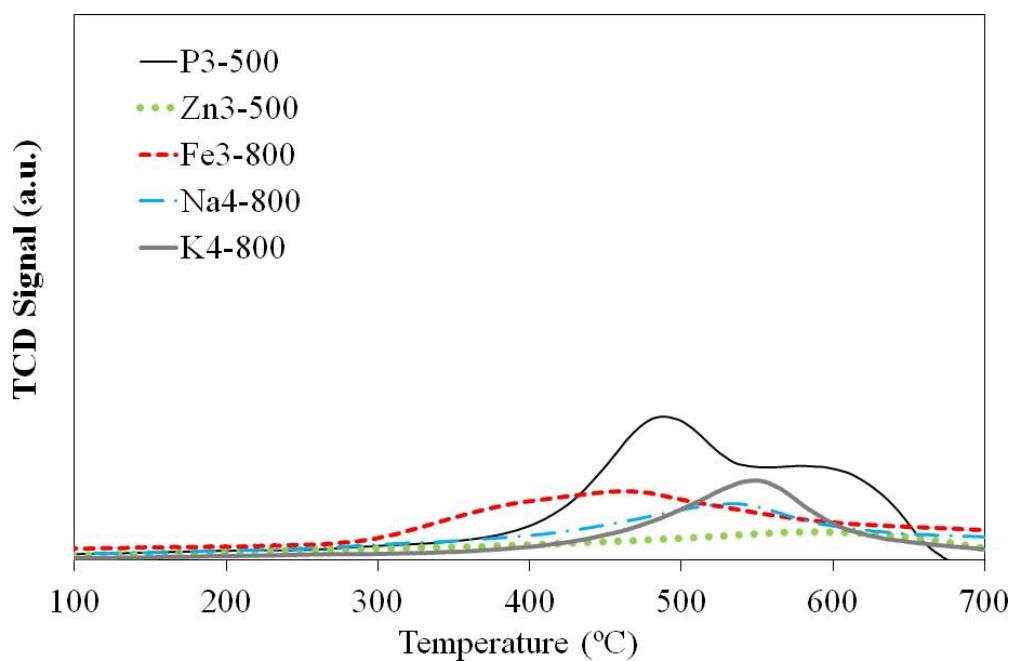


Figure ES2. TPR profiles of the activated carbons in 10% H₂/Ar (50 cm³·min⁻¹).

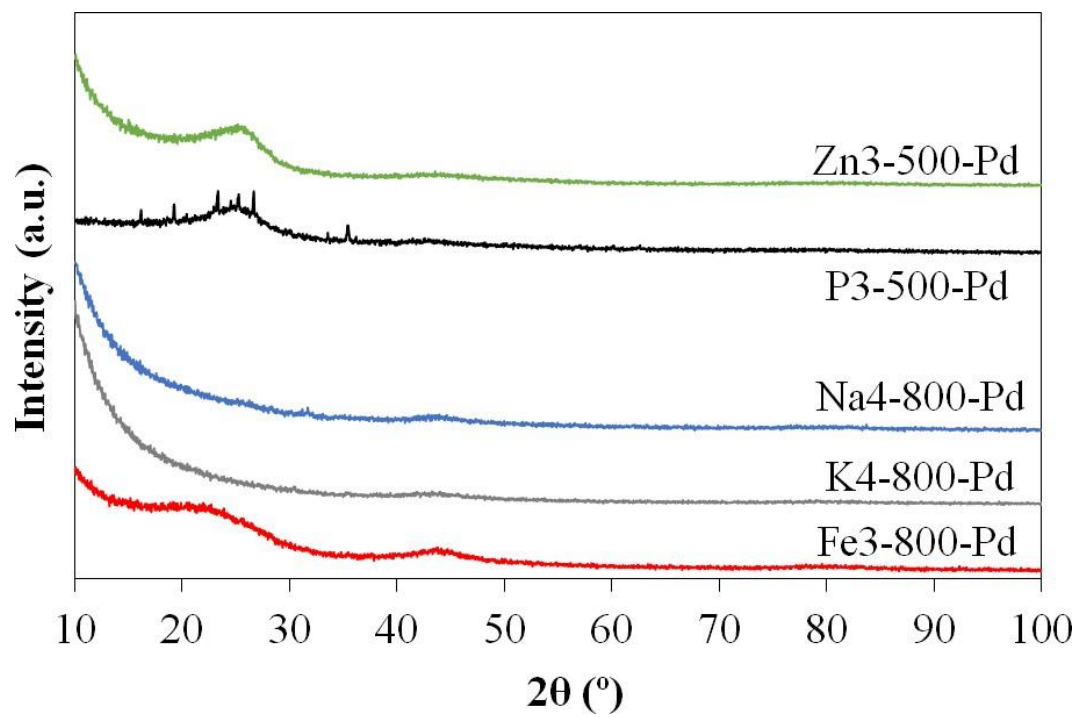


Figure ES3. XRD patterns of the catalysts.

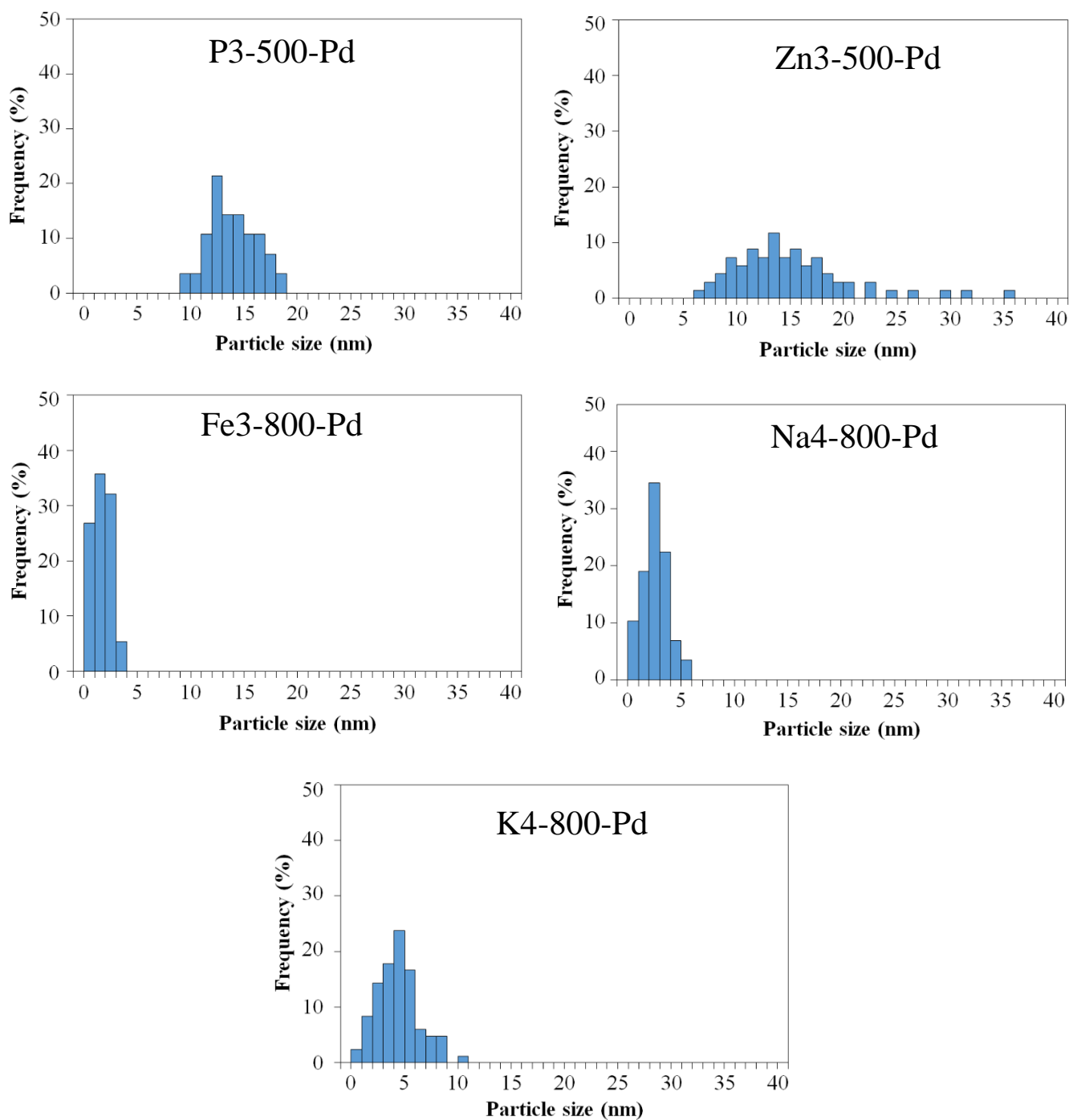


Figure ES4. Pd-particle size distributions of the catalysts.

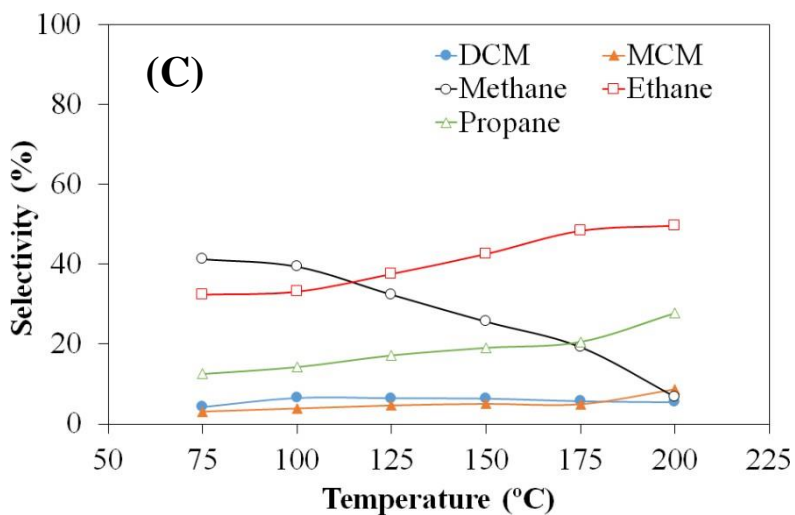
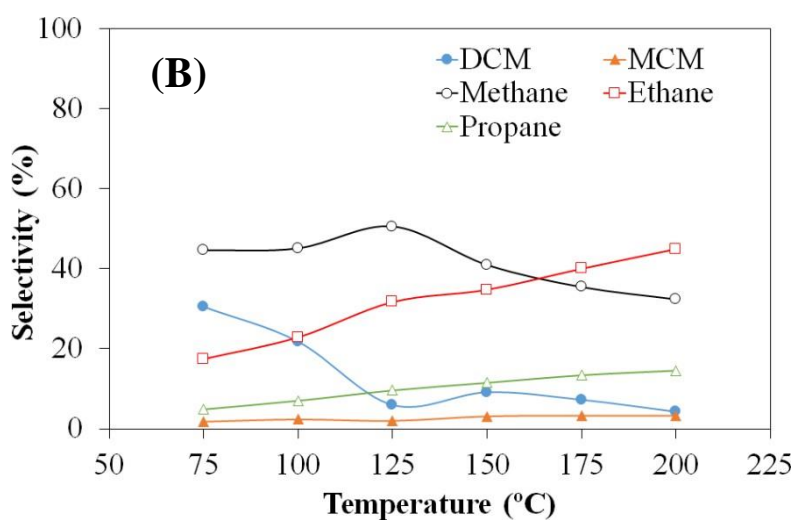
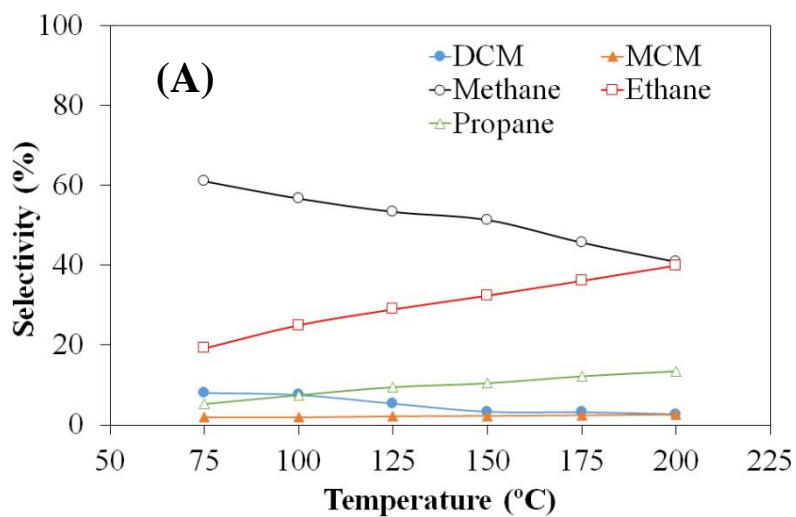


Figure ES5. Selectivity versus reaction temperature with (A) Zn3-500-Pd. (B) Fe3-800-Pd and (C) Na4-800-Pd ($\tau = 0.8 \text{ kg}_{\text{cat}} \cdot \text{h} \cdot \text{mol}^{-1}$; see conversion vs temperature in Figure 6).