Supplementary Information

Table S1. FUR conversion, FOL yield, iPL yield and iPFE yield in the CTH reaction of furfural using Zr, Zr_xAl_y and Al catalysts. (Experimental conditions: 110 ºC, 3 h of reaction, 0.1 g of catalyst, 2-propanol/FUR molar ratio: 50, FUR/catalyst mass ratio: 1).

Catalyst	**Conv (%)**	**Y_{FOL} (%)**	**Y_{iPL} (%)**	**Y_{iPFE} (%)**
Zr	42	36	3	3
Zr_3Al_7	72	66	-	-
Zr_5Al_5	83	78	-	-
Zr_7Al_3	74	68	-	-
Al	63	61	-	-

Table S2. FUR conversion, FOL yield, iPL yield and iPFE yield in the CTH reaction of furfural using Zr, Zr_5Al_5 and Al catalysts. (Experimental conditions: 90-130 ºC, 3 h of reaction, 0.1 g of catalyst, 2-propanol/FUR molar ratio: 50, FUR/catalyst mass ratio: 1).

Catalyst	**Temperature (ºC)**	**Conv (%)**	**Y_{FOL} (%)**	**Y_{iPL} (%)**	**Y_{iPFE} (%)**
Zr	90	26	21	-	-
	110	42	36	3	3
	130	74	52	11	9
Zr_5Al_5	90	48	44	-	-
	110	83	78	-	-
	130	96	89	-	-
Al	90	34	31	-	-
	110	63	61	-	-
	130	85	76	-	-

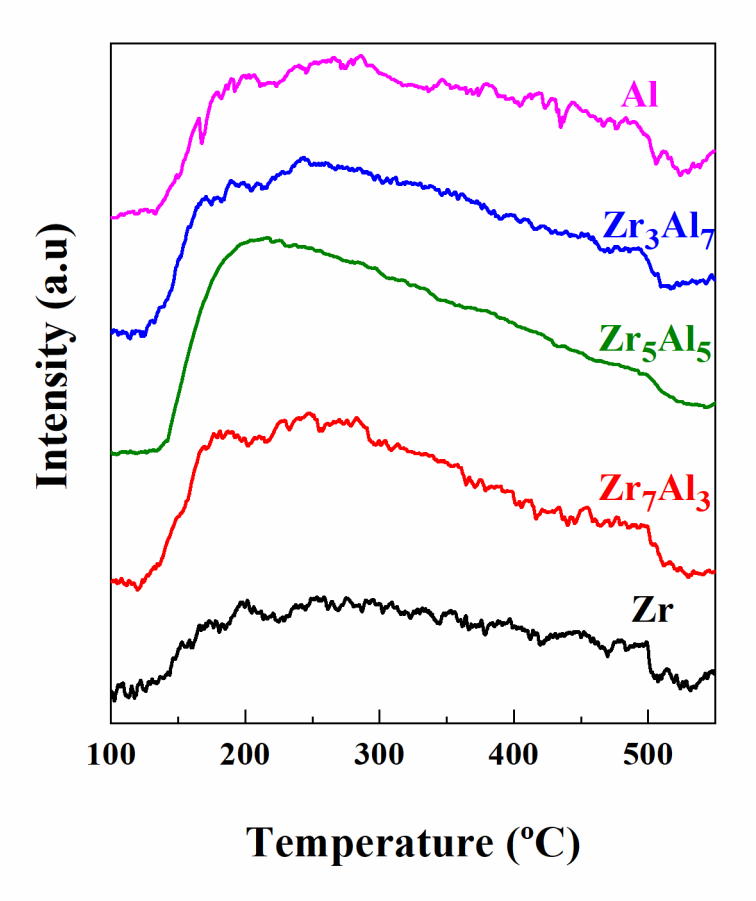

Figure S1. NH_3-TPD profile of Zr, Zr_xAl_y and Al catalysts.

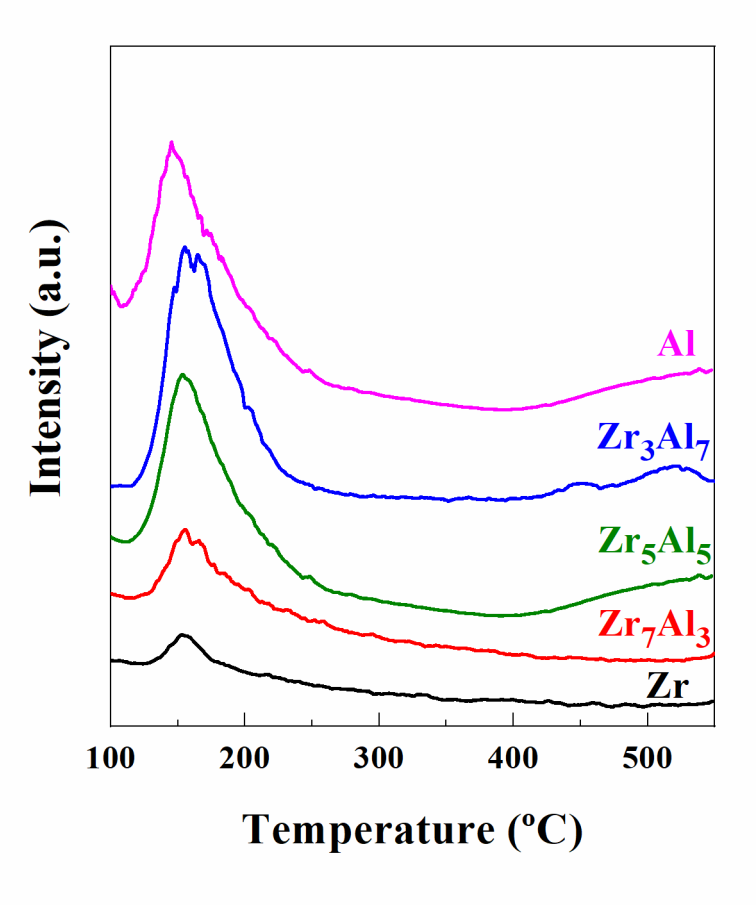

Figure S2. CO_2-TPD profile of Zr, Zr_xAl_y and Al catalysts.

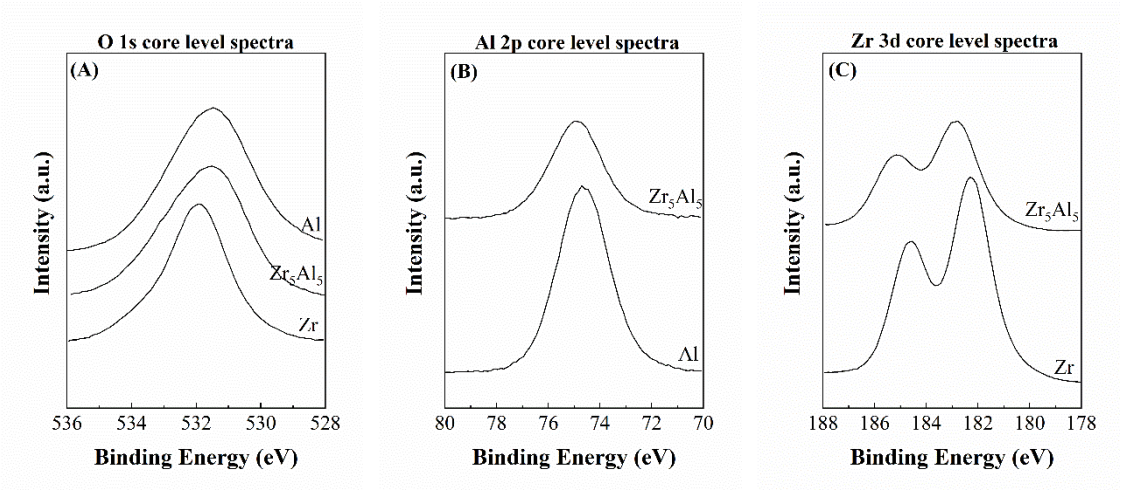

Figure S3. O 1s, Al 2p and Zr 3d core level spectra of Zr and Zr_5Al_5 and Al catalysts.

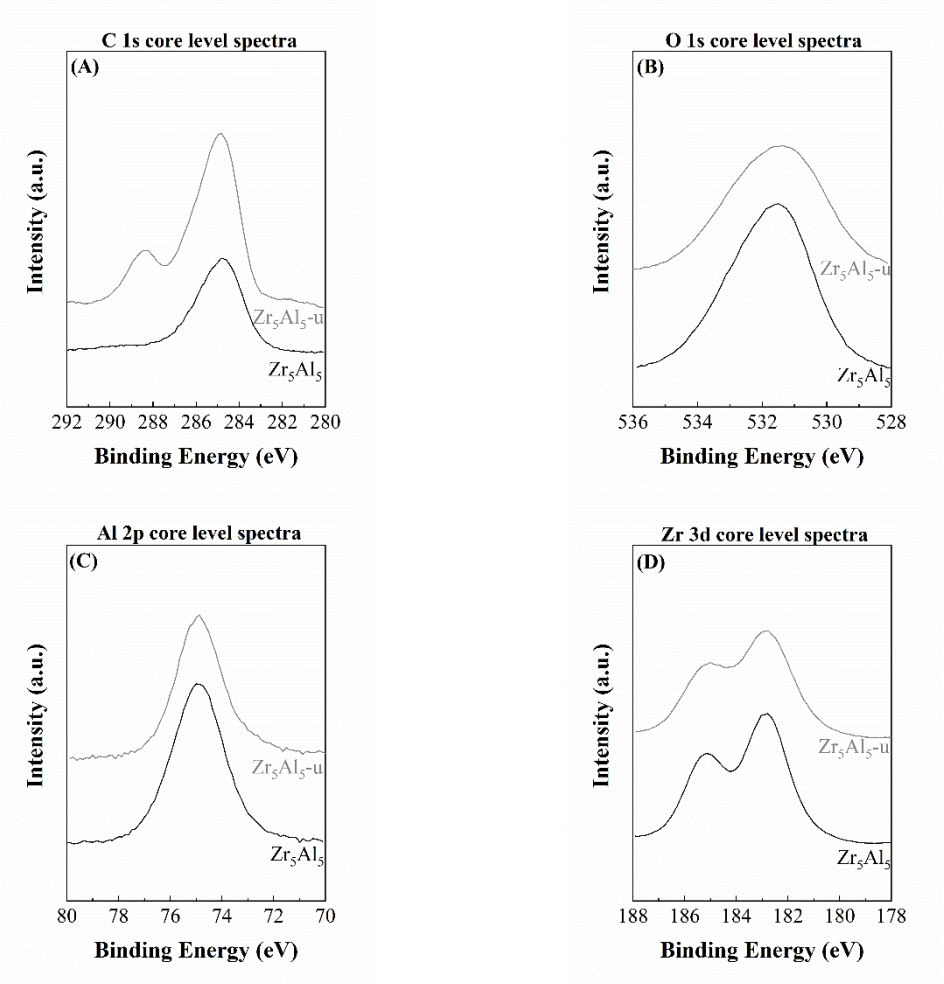

Figure S4. C 1s, O 1s, Al 2p and Zr 3d core level spectra of Zr_5Al_5 catalyst before and after 4 cycles of reaction. (Experimental conditions: 0.1 g of catalyst, temperature reaction: 110 °C, reaction time: 3, 2-propanol/FUR molar ratio: 50, FUR/catalyst mass ratio: 1).