Supporting Information

Isobutane dehydrogenation over InPtSn/$ZnAl_2O_4$ catalysts: Effect of indium promoter

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Table S1 Textural properties of xInPtSn/ $ZnAl_2O_4$ catalysts.

Samples	$S_{BET}(m^2/g)$	$Vp(cm^3/g)$	$D_{pore}(nm)$
PtSn/ZA	84.9	0.14	6.9
0.2InPtSn/ZA	85.1	0.14	6.8
0.4InPtSn/ZA	84.7	0.14	6.8
0.6InPtSn/ZA	85.1	0.15	7.1
0.8InPtSn/ZA	85.0	0.15	7.0
1.0InPtSn/ZA	85.1	0.15	7.1

Table S2 Summary of XPS results xInPtSn/ $ZnAl_2O_4$ catalysts.

Samples	Binding energy $Sn3d_{5/2}$ (eV)
PtSn/ZA	485.4 (29%); 486.2 (44%); 487.1 (27%)
0.4InPtSn/ZA	485.5 (18%); 486.5 (50%); 487.5 (32%)
0.6InPtSn/ZA	485.5 (23%); 486.4 (44%); 487.4 (33%)
1.0InPtSn/ZA	485.7 (28%); 486.5 (40%); 487.4 (32%)

Table S3 Amount of coke on the xInPtSn/ $ZnAl_2O_4$ catalysts after isobutane dehydrogenation

Samples	Coke amount (%)
PtSn/ZA	1.48
0.4InPtSn/ZA	1.21
1.0InPtSn/ZA	2.68

Figures

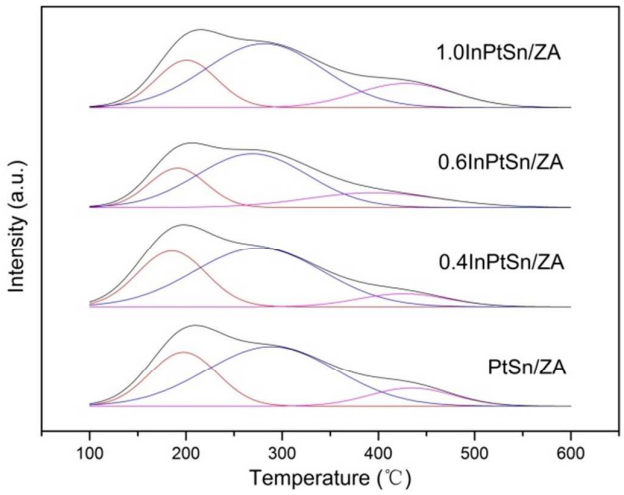

Figure S1 NH_3-TPD profiles of xInPtSn/$ZnAl_2O_4$ catalysts.