

## Supplementary Information

**Table S1: Isomer distribution for C<sub>4</sub>-C<sub>6</sub> hydrocarbons obtained over prepared catalysts**

Catalyst	Pt@TPA@K6	Pt@TPA@HMS	Pt@TPA@PS15	Pt@TPA@S5
nC <sub>4</sub>	2.14	1.59	2.55	1.75
iC <sub>4</sub>	10.88	10.16	10.82	10.75
Total C <sub>4</sub>	13.02	11.75	13.37	12.50
iC <sub>5</sub>	1.31	0.54	1.28	0.62
nC <sub>5</sub>	0.63	0.15	0.57	0.16
Cyclopentane	0.00	0.00	0.00	0.00
Total C <sub>5</sub>	1.94	0.69	1.85	0.78
2,2-DMB	0.02	0.05	0.03	0.04
2,3-DMB	0.14	0.19	0.16	0.17
2-MP	0.78	0.37	0.79	0.43
3-MP	0.59	0.21	0.56	0.32
nC <sub>6</sub>	0.78	0.48	0.79	0.41
Methylcyclopentane	0.14	0.15	0.19	0.21
Cyclohexane	0.08	0.07	0.09	0.06
Benzene	0.00	0.00	0.00	0.00
Total C <sub>6</sub>	2.53	1.52	2.61	1.64
Total	16.93	13.18	17.10	14.10

**Table S2: Isomer distribution for C<sub>7</sub> hydrocarbons obtained over prepared catalysts**

Catalyst	Pt@TPA@K6	Pt@TPA@HMS	Pt@TPA@PS	Pt@TPA@S5
2,2-dimethylpentane	0.16	1.54	0.74	0.45
2,4-dimethylpentane	0.25	1.69	1.26	0.93
2,2,3-trimethylbutane	0.05	0.27	0.26	0.17
3,3-dimethylpentane	0.16	2.42	0.50	0.29
2-methylhexane	1.40	4.23	4.24	1.60
2,3-dimethylpentane	0.87	2.17	1.52	1.10
1,1-dimethylcyclopentane	0.03	0.05	0.06	0.04
3-methylhexane	1.89	6.54	5.61	2.94
1c,3 dimethylcyclopentane	0.03	0.00	0.04	0.05
3-ethylpentane	0.19	2.16	0.81	0.79
n-heptane	57.14	48.05	45.51	58.66
Methylcyclohexane	0.10	0.16	0.22	0.14
Toluene	0.05	0.00	0.00	0.00
Total C <sub>7</sub>	62.31	69.28	60.77	67.17

Figure S1: Ammonia TPD profiles obtained over prepared catalysts

