Electronic Supplementary Material (ESI) for Catalysis Science & Technology.

Galvanic Synthesis of AgPd Bimetallic Catalysts from Ag Clusters Dispersed in a Silica Matrix

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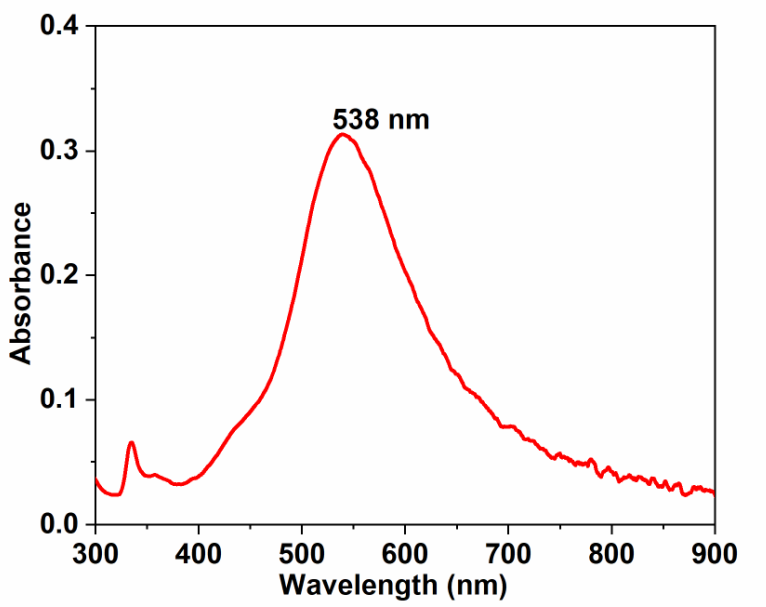

Figure S1. UV-Vis spectra of Ag Nanotriangles.

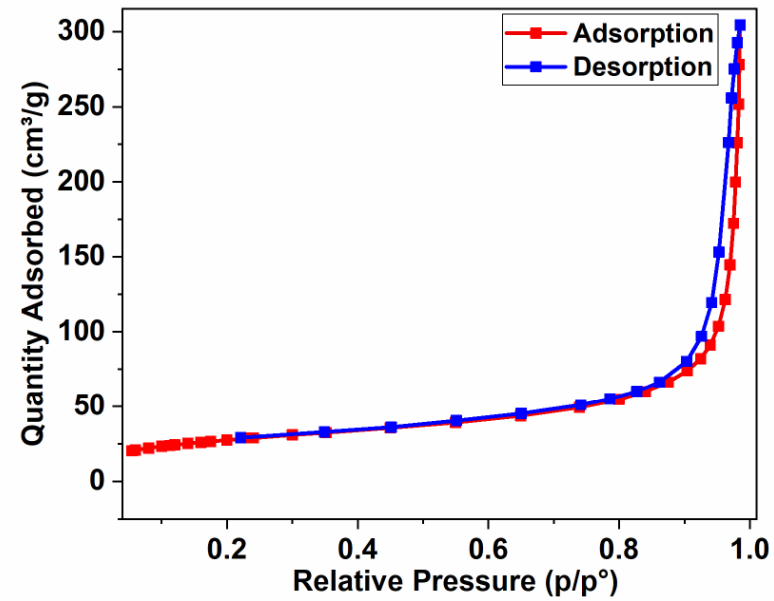

Figure S2. BET surface area of Ag@SiO_2 materials after calcination at 650 ˚C.

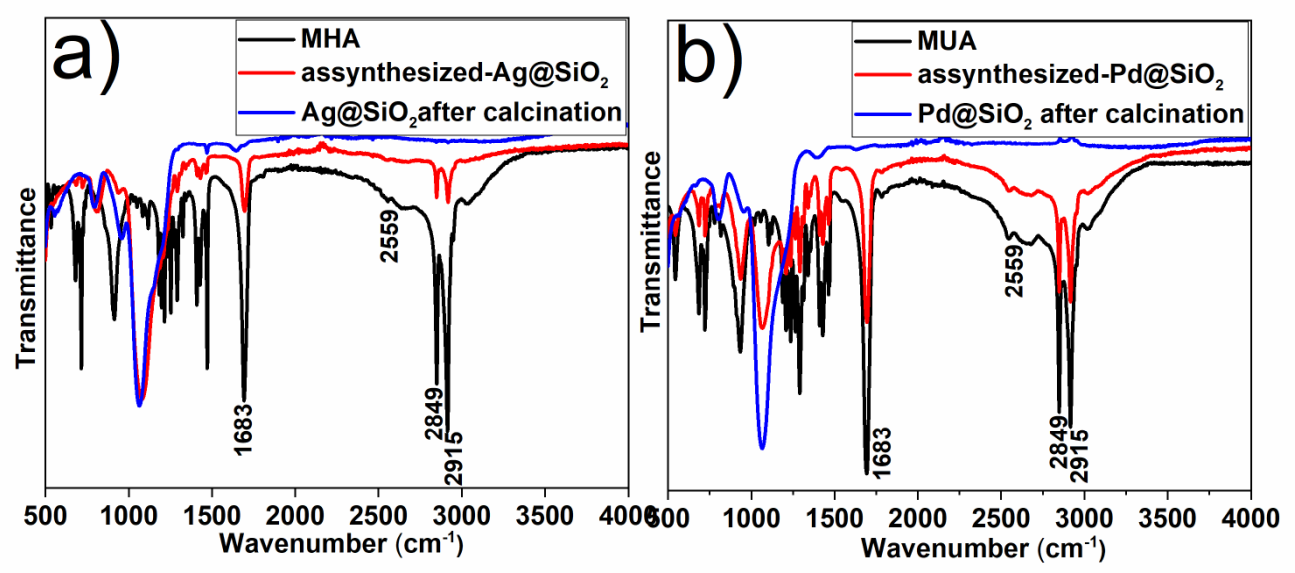

Figure S3. FTIR spectra of a) $Ag@SiO_2$ before and after calcination and b) $Pd@SiO_2$ before and after calcination.

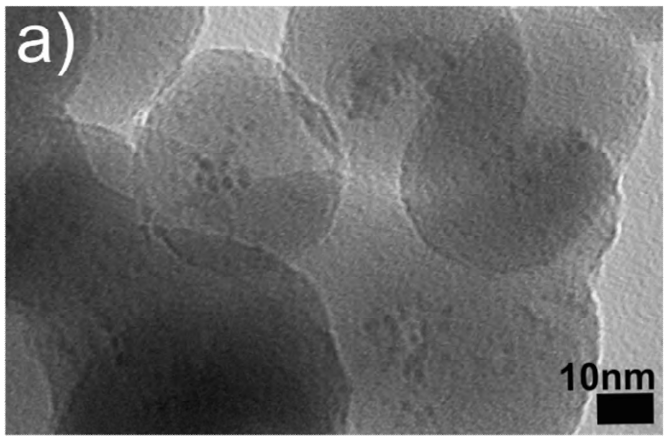

Figure S4. TEM image of $Pd@SiO_2$ catalysts after calcination.

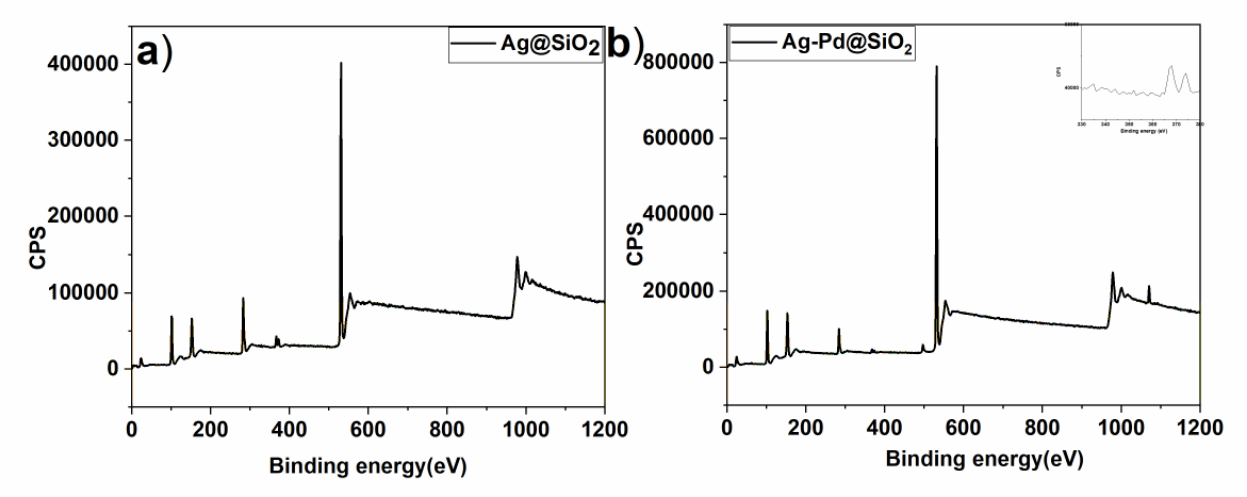

Figure S5. XPS survey scan measurement of $Ag@SiO_2$ and $AgPd@SiO_2$

Table S1. Elemental composition of $Ag@SiO_2$ and $AgPd@SiO_2$ catalysts using XPS analysis

Element	$Ag@SiO_2$ (At %)	$Ag\text{-}Pd@SiO_2$ (At %)
Ag 3d	0.5	0.1
Pd 3d	0.0	0.0
C 1s	26.6	14.1
Si 2p	25.4	32.0
O 1s	47.5	53.8

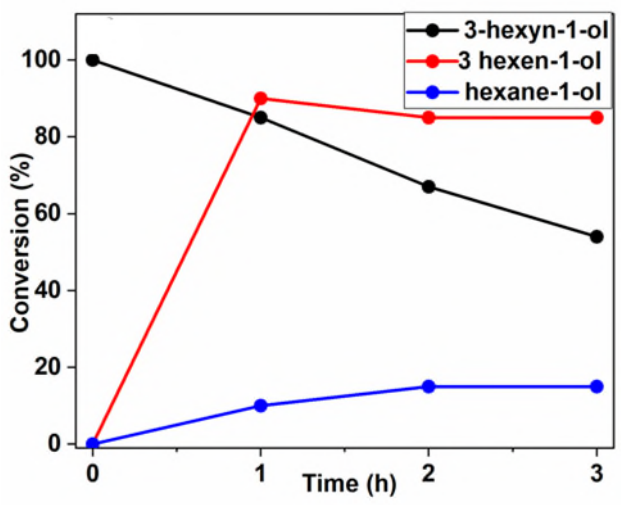

Figure S6. Time dependant hydrogenation of 3-hexyne-1-ol hydrogenation reaction $AgPd@SiO_2$ catalysts.

Table S2. The catalytic activity for 3-hexyne-1-ol hydrogenation reaction over AgPd@SiO_2 catalysts.

Catalysts	**Conversion %**	**Selectivity %**	
		3 hexen-1-ol	hexan-1-ol
1st cycle	48	85	15
2nd cycle	45	89	11
3rd cycle	47	86	14
4th cycle	46	81	19