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Influence of the electronic state of the metals in Fe-Pt/SiO_2 catalysts on the performance of hydrogenation of phenylacetylene

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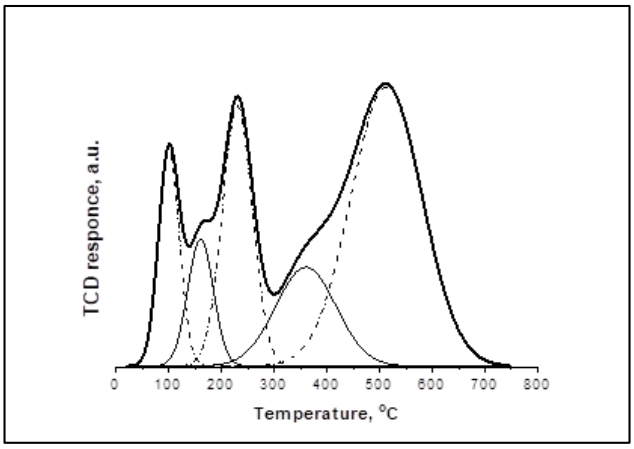

Figure S1 Deconvolution of the TPR curve for the calcined 1%Pt-1%Fe/SiO_2-300C catalyst.

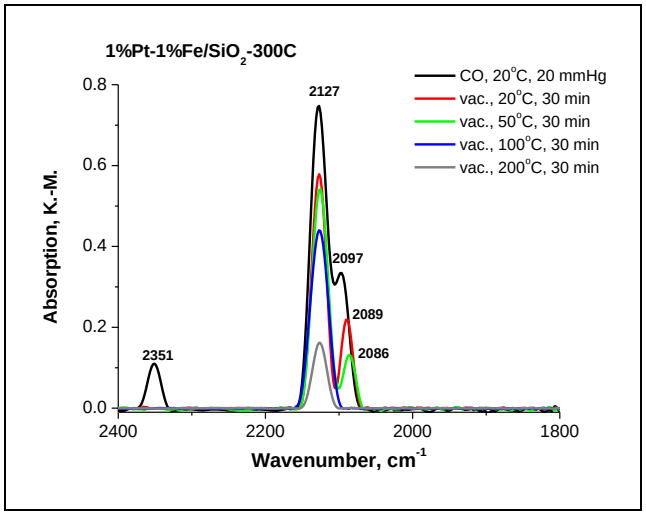

Figure S2 DRIFT-CO spectra of the calcined 1%Pt-1%Fe/SiO_2-C catalyst.

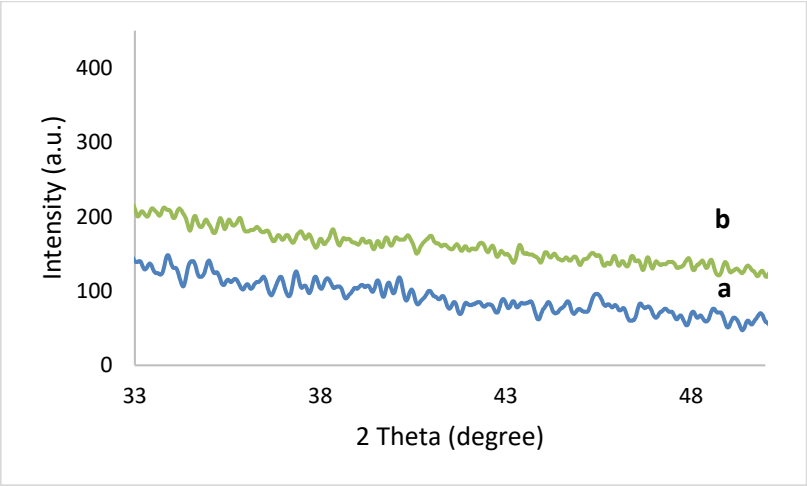

Figure S3 XRD patterns of 1%Pt/SiO_2 (a), 1%Pt-1%Fe/SiO_2-C-H (b).

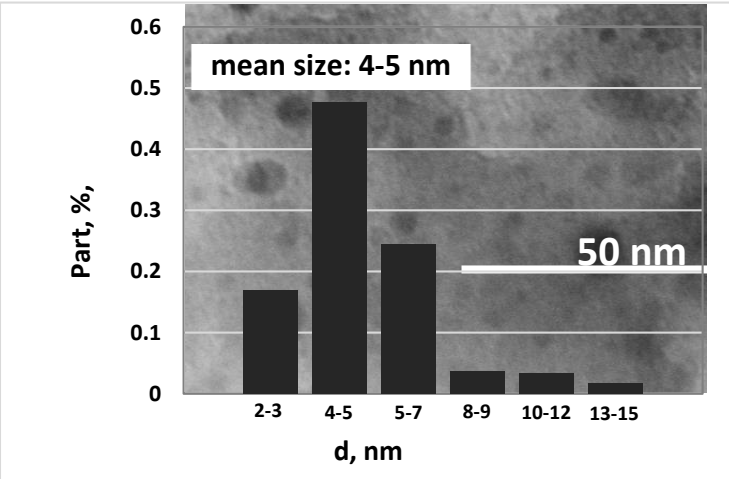

Figure S4 TEM images of the 1%Pt-1%Fe/SiO_2-C-H catalyst.

Table S1 XPS results for monometallic Pt and bimetallic Pt-Fe catalysts.

Sample	Binding energy, eV		Surface atomic ratio			Volume atomic ratio		
	Fe $2p_{3/2}$	Pt $4f_{7/2}$	Fe/Si	Pt/Si	Pt/Fe	Fe/Si	Pt/Si	Pt/Fe
1%Pt/SiO_2-H	-	71.2	-	0.0022	-	-	0.0036	-
1%Pt-1%Fe/SiO_2-C-H	710.9	70.8	0.0058	0.0017	0.29	0.014	0.0036	0.26