

## Electronic Supplementary Immaterial (ESI)

### Synthesis of surfactant assisted zero-dimensional iron nanomaterials for cellobiose hydrolysis

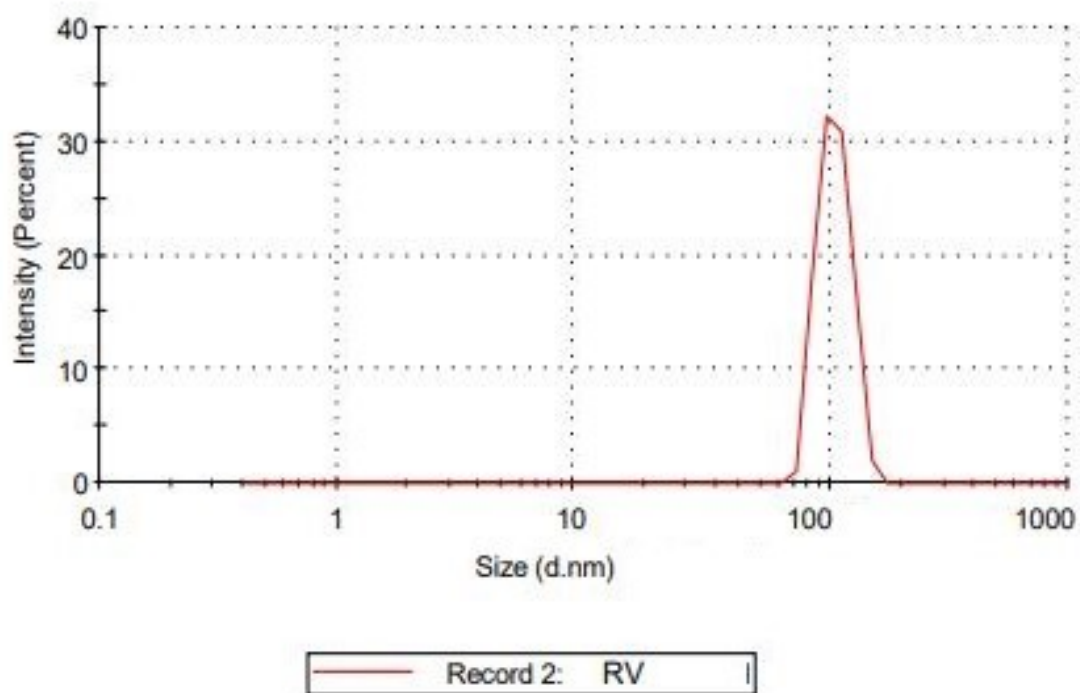
#### A Table of content entry

Table S1: Comparing results of few different nanomaterials synthesized using the same method for cellobiose hydrolysis at 120 °C

Nanomaterials	Calcination temp/°C	%Conversion	%Yield of Glucose	%Yield of HMF
FeCl <sub>3</sub>	400	40	40	-
FeCTB-200	200	50	50	50
FeCTB-300	300	60	60	40
FeCTB	400	80	40	60

Table S2: Hydrolysis of cellobiose over FeCTB nanomaterial at different temperature

Nanomaterials	Reaction temperature /°C	%Conversion	%Yield of Glucose	%Yield of HMF
FeCTB	120	80	40	60
FeCTB	200	80	30	70
FeCTB	250	85	30	70



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Figure S1: Particle size distribution of FeCTB by dynamics light scattering (DLS)

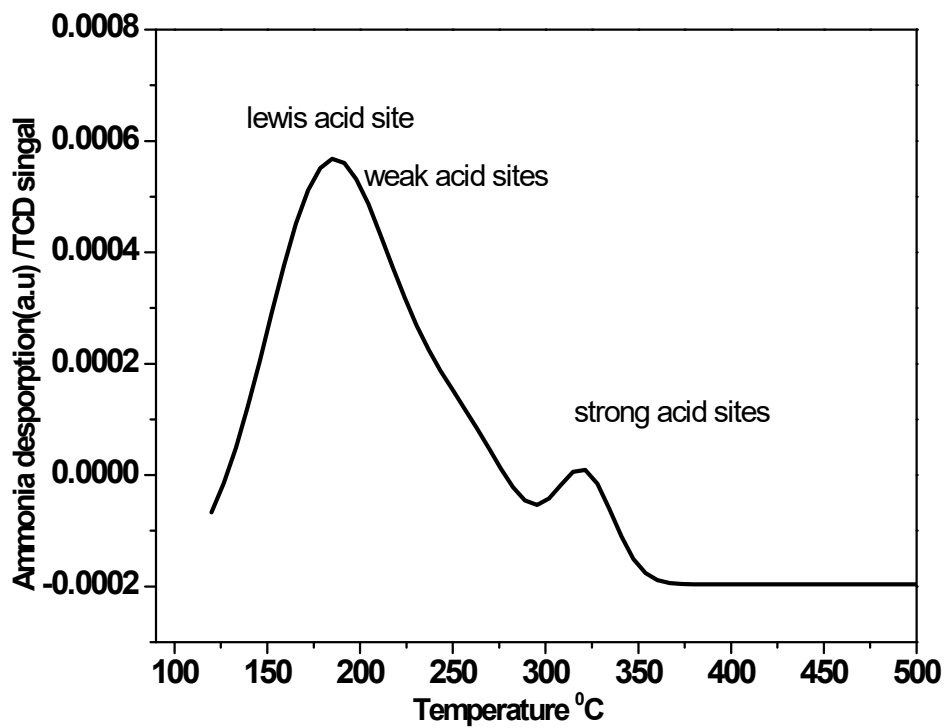


Figure S2: Ammonia Temperature Program Desorption (NH<sub>3</sub>-TPD) of FeCTB up 600 °C.

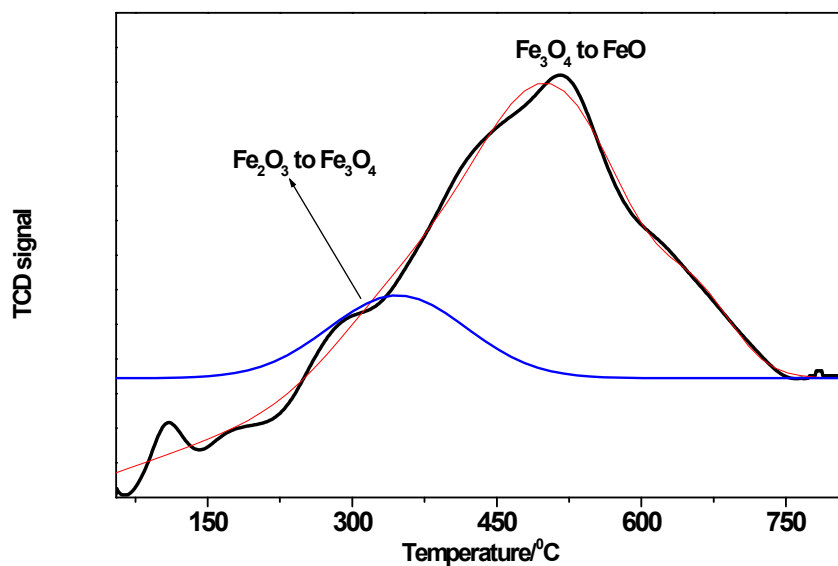


Figure S3: The H<sub>2</sub>-TPR profile of FeCTB nanomaterial up 800 °C.

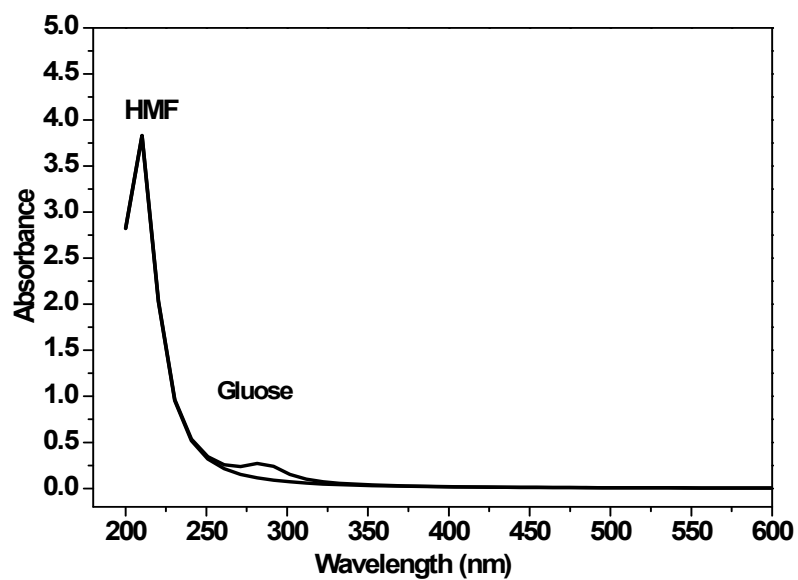


Figure S4: The UV-Visible spectrum of hydrolyzed product of cellobiose