## **Supporting Information**

## Cyclodextrin-assisted Synthesis of Pd/Co/C Nanopolyhedra by ZIF-67 as a

## Highly Acid Tolerant Catalyst for Hexavalent Chromium Reduction

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Figure S1 Photo of  $Pd(acac)_2$  without and with HP- $\beta$ -CD in the impregnation solution.



Figure S2 XRD patterns of Co/C (a) and Pd/Co/C obtained with HP- $\beta$ -CD(b).



Figure S3 TEM image of Co/C (A) and HRTEM image of Co nanoparticle (B).

Table 51. Specific surface area, pore size and volume of the samples			
Samples	Surface Area	Pore Size	Pore Volume
ZIF-67	1396.4	2.11	7.38
HP-β-CD-Pd(acac) <sub>2</sub> /ZIF-67	897.4	2.18	4.88

Table S1. Specific surface area, pore size and volume of the samples



Figure S4  $N_2$  adsorption-desorption isotherm of Co/C and Pd/Co/C obtained with HP- $\beta$ -CD.

Table S2. Leaching of cobalt in the Pd/Co/C during the catalytic tests

Pd/Co/C	Molecular ratio of Co : Pd
Fresh	97.6 : 2.4
After 8 cycle	95.5 : 4.5

Table S3. The cobalt ions in the reaction solutions determined by ICP-AES.

Sample	Co <sup>2+</sup> (mg/L)
Co/C	670.4
Pd/Co/C	17.2



Figure S5 TG curves of Pd/Co/C before and after catalytic reaction (5 °C/min, in Ar).