Supplemental materials for:

Production of furfural from xylose and corn stover catalyzed by a novel porous carbon solid acid in γ-valerolactone

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Figure captions:

Fig S1. TEM images of RFC (A) and S-RFC (B)

Fig S2. FT-IR spectra of RFC and S-RFC

Fig S3. S 2p XPS spectra of S-RFC

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Table S1. Deactivation study of S-RFC

Table S2. S content of reused S-RFC

Table S1. Deactivation study of S-RFC.[a]

Run	1st	2nd	3rd	4th	5th	6th [b]	7th [c]
Furfural yield (%)	76.2	74.7	73.1	69.5	45	35%	25%

[a] Reaction conditions: 0.6 g S-RFC, 0.8 g xylose, 32 ml GVL, 170℃, 5 min reaction time, 25 min heating-up time.

[b] The catalyst was regenerated by a new sulfonation cycle

[c] The catalyst was regenerated by removal of deposits

Table S2. S content of reused S-RFC.

Catalyst	fresh	Run 1	Run 2	Run 3	Run 4	Run 5
Sulfur content (%)	2.75	2.7	2.5	2.4	2.1	1.5

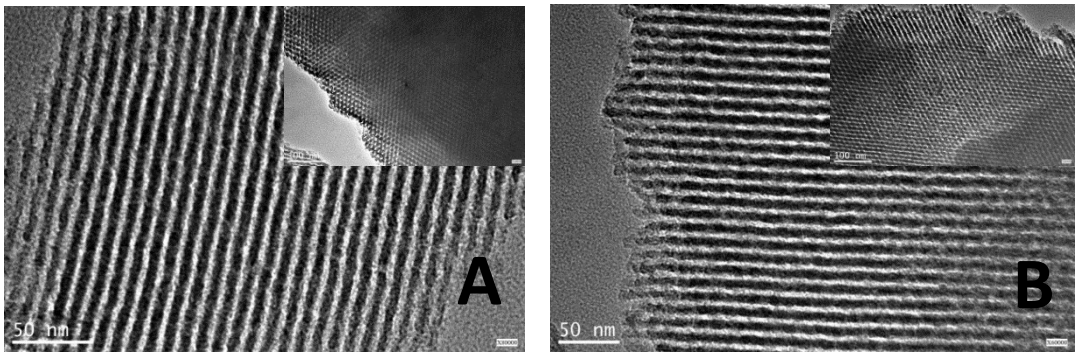

Fig S1. TEM images of RFC (A) and S-RFC (B)

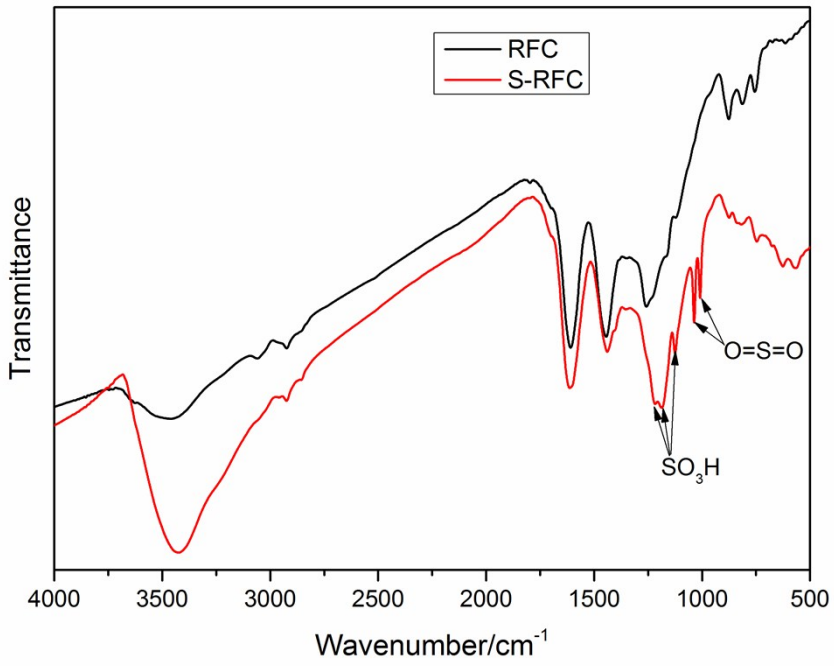

Fig S2. FT-IR spectra of RFC and S-RFC

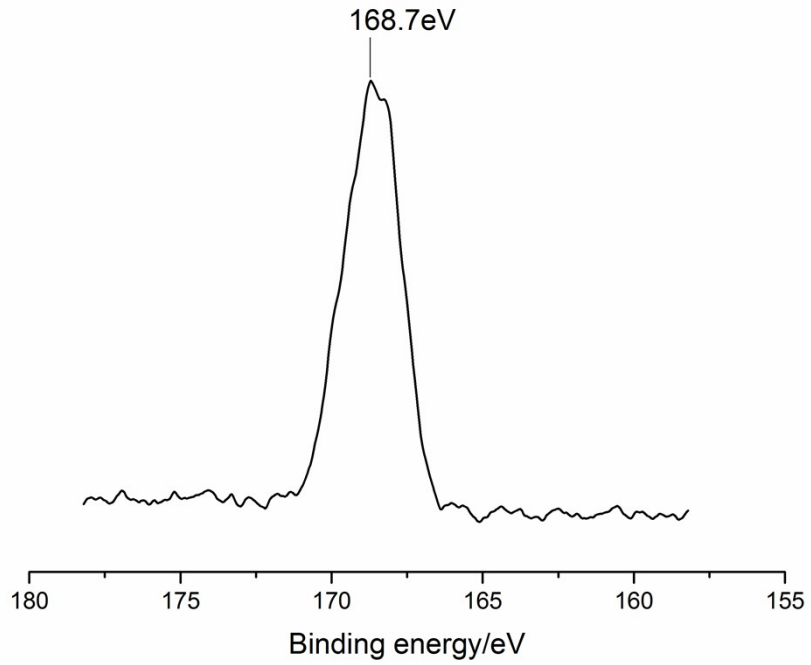

Fig. S3 S 2p XPS spectra of S-RFC