

**Electronic Supplementary Information**

**Evolution of covalent triazine-based framework catalyzed by p-toluenesulfonic acid monohydrate**

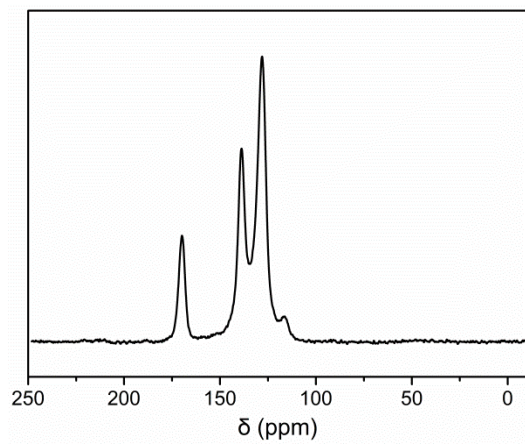
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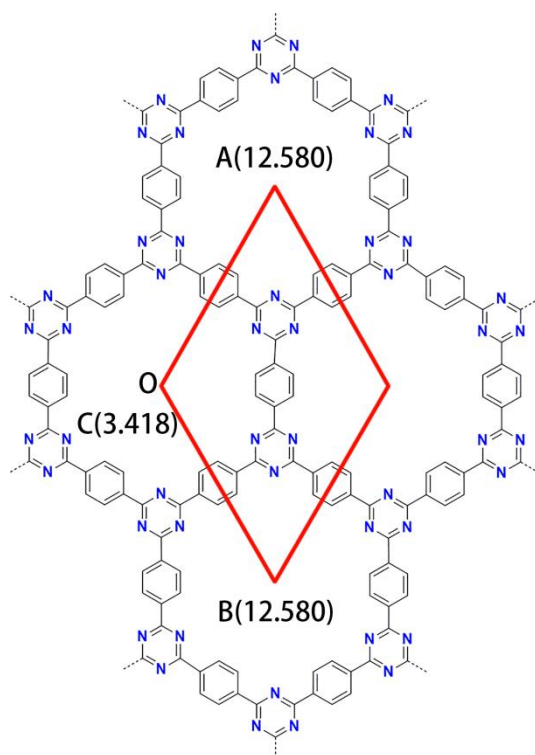
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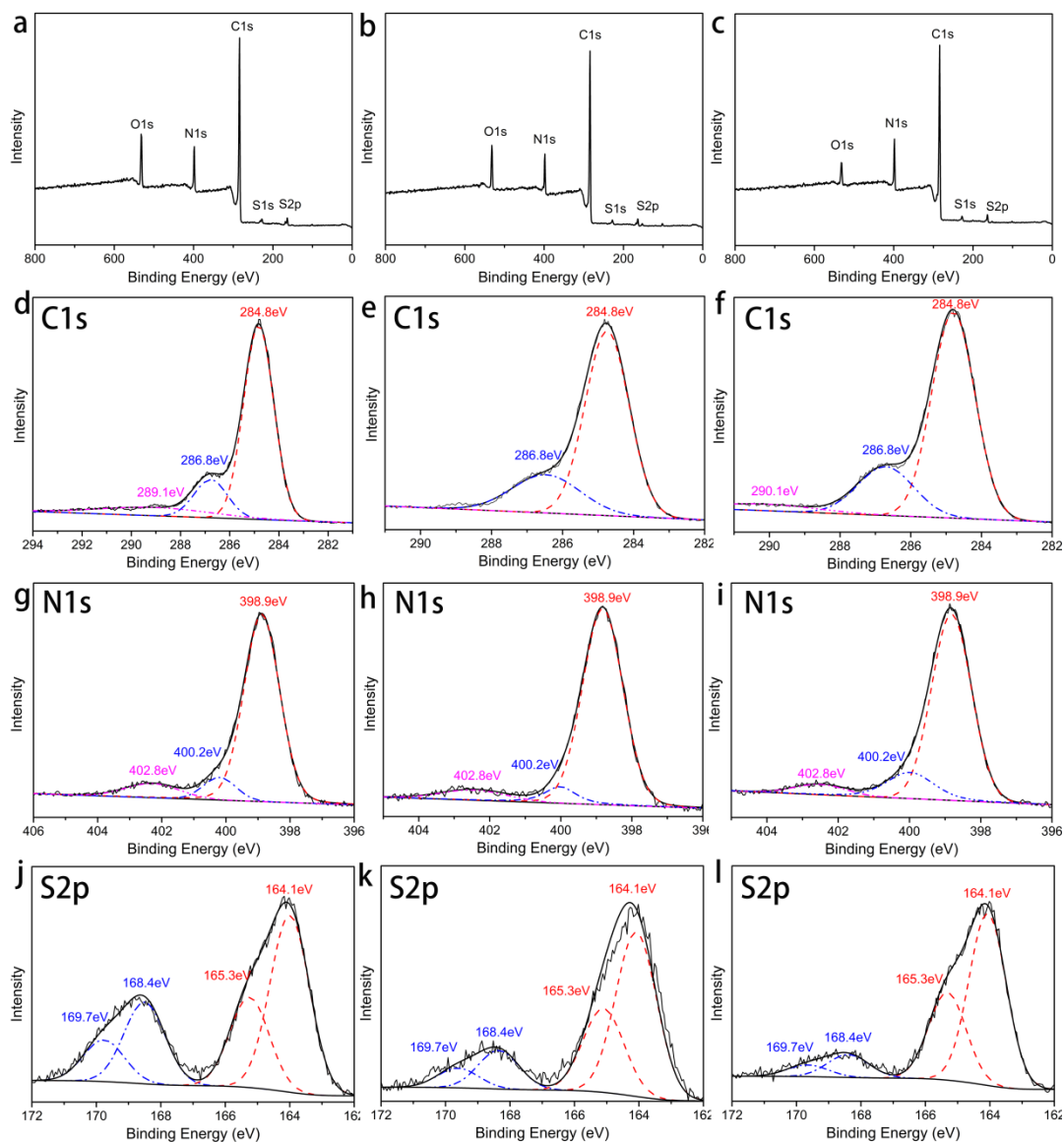
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**Fig. S1**  $^{13}\text{C}$  CP-MAS solid state NMR of CTF-1@500.



**Fig. S2** Crystal cell of CTF-1@500.



**Fig. S3** (a) XPS survey spectrum of triazine-based polymer; (b) XPS survey spectrum of CTF-1@400; (c) XPS survey spectrum of CTF-1@500; (d) Deconvoluted C1s spectrum of triazine-based polymer; (e) Deconvoluted C1s spectrum of CTF-1@400; (f) Deconvoluted C1s spectrum of CTF-1@500; (g) Deconvoluted N1s spectrum of triazine-based polymer; (h) Deconvoluted N1s spectrum of CTF-1@400; (i) Deconvoluted N1s spectrum of CTF-1@500; (j) Deconvoluted S2p spectrum of triazine-based polymer; (k) Deconvoluted S2p spectrum of CTF-1@400; (l) Deconvoluted S2p spectrum of CTF-1@500.