Supporting Information

Experimental section: Al-PCPs (250 mg) were immersed into 20 mL aqueous solution containing dicyandiamide (DCDA, 750 mg). Then, the suspension was put on alumina vessel and heated to 300 °C under reduced pressure (around 0.01 MPa) for accelerating the introduction of DCDA molecules into the nanopores in the Al-PCPs. As soon as the complete evaporation of the solvent was terminated, the alumina vessel was taken out to prevent the self-decomposition of DCDA. The above process was repeated twice to fill enough DCDA into Al-PCP nanopores. After that, the Al-PCP containing DCDA was calcined at 600 °C under nitrogen gas flow. According to TG analysis, around 60 wt% weight loss was confirmed during the thermal conversion to carbon nitride. The large weight loss was caused by several reasons; (i) the decomposition of the host frameworks, (ii) the condensation reaction of DCDA molecules, and (iii) evaporation of DCDA molecules. Finally, the calcined sample was carefully washed by HF solution and water to remove Al species. The complete removal of the Al species was confirmed by ICP analysis.

Figure S1

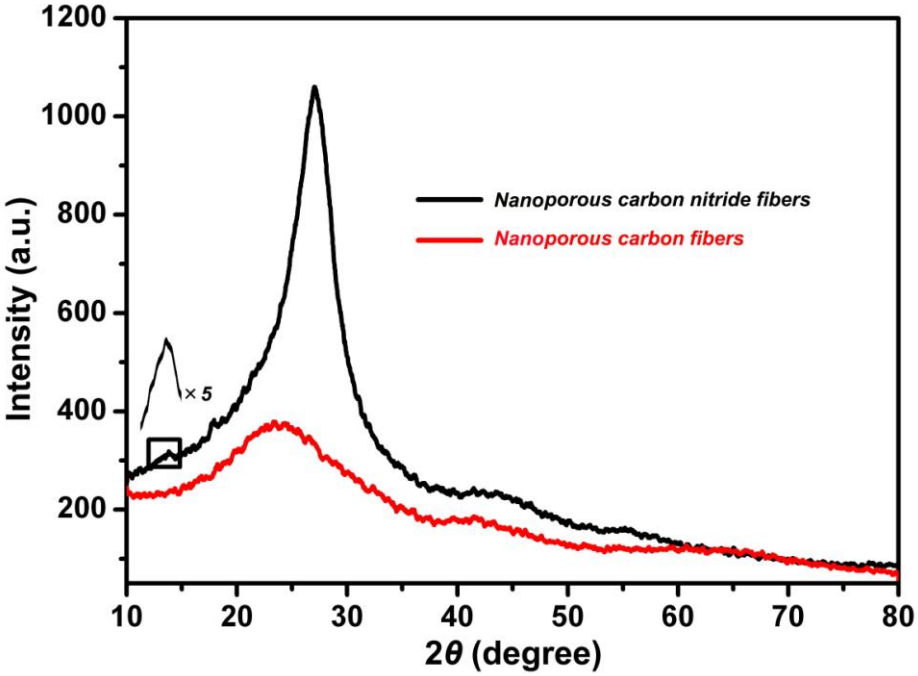

Figure S1 Wide-angle XRD patterns for nanoporous carbon and nanoporous carbon nitride fibers prepared under the same calcination condition.

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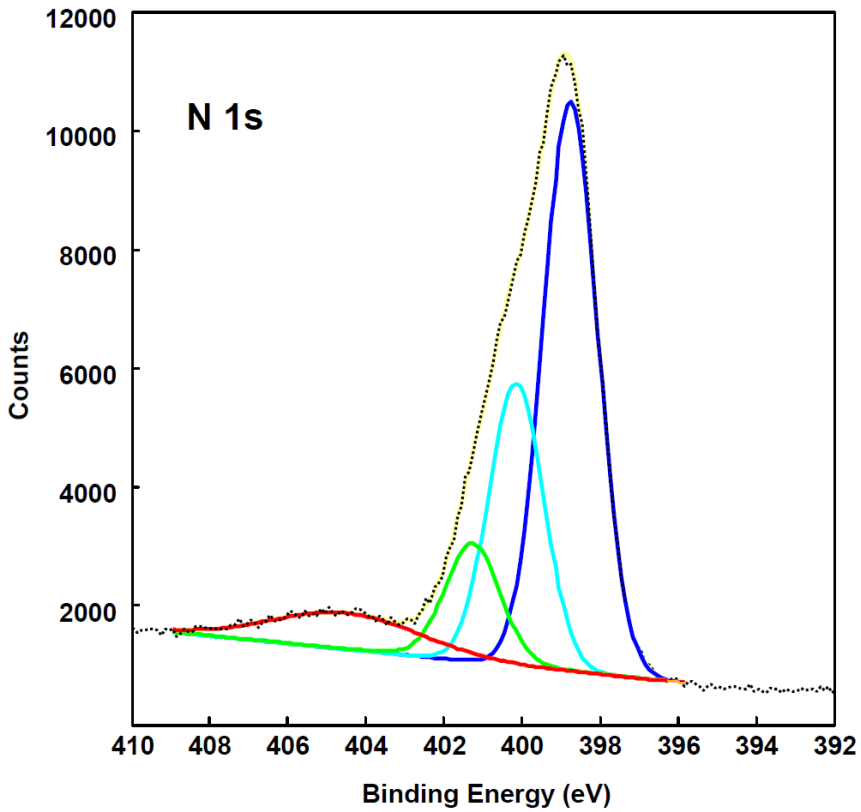
Figure S2



Position (eV)	FWHM	Peak height	Peak area	Peak area (%)	Atomic ratio (%)
398.8	1.65	9615	16980	53.3	25.7
400.1	1.65	4760	8355	26.2	12.6
401.3	1.65	1999	3632	11.4	5.5
404.5	4.48	609.0	2904	9.10	4.4

Figure S2 XPS spectrum (N 1s) of nanoporous carbon nitride fibers. C 1s peak (Binding energy = 284.6 eV) is used as reference.

Figure S3

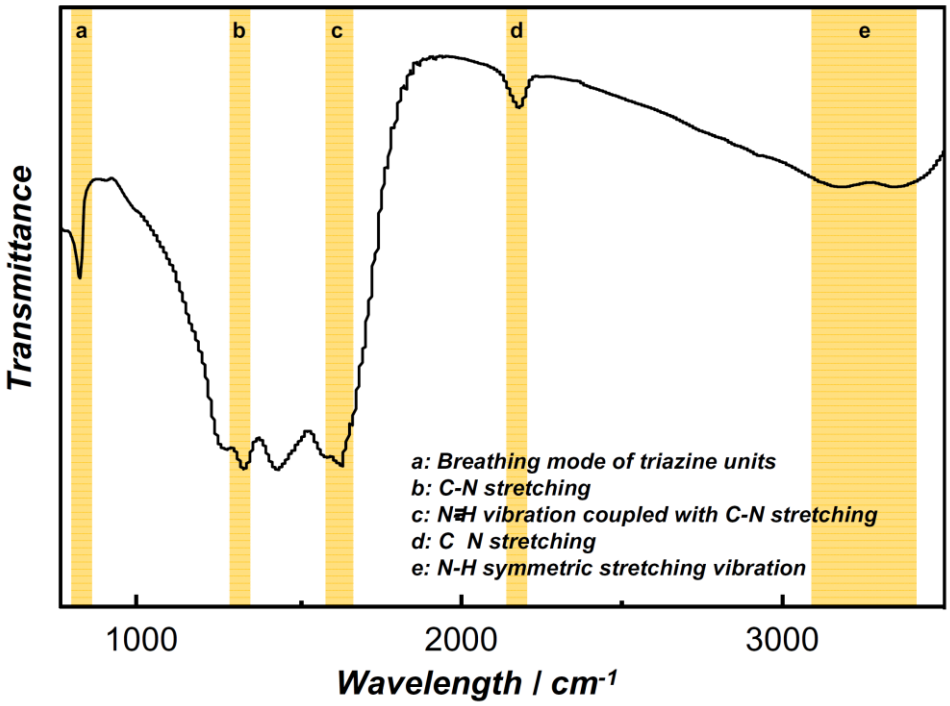


Figure S3 IR spectrum of nanoporous carbon nitride fibers.