

Supporting information for:

**A study on the hydrogen bonding interaction of the electrospun
ladder polyphenylsilsesquioxane/polyisophthalamide composite
fibers by ATR FT-IR**

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Supporting figures:

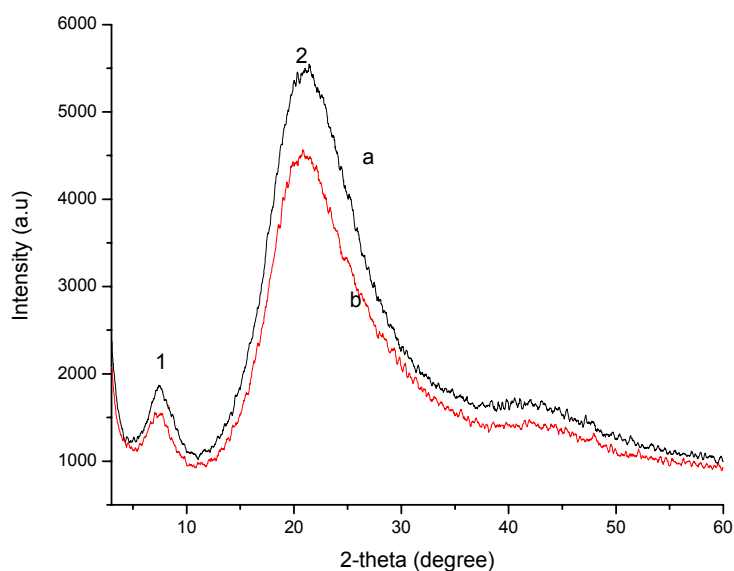


Figure S2 XRD spectra of Ph-LPSQ/C₁₂-PA powder (a) and fiber (b).

X-ray diffraction (XRD) was performed on a Rigaku D/max 2400 diffractometer with Cu K α radiation.

XRD spectra of Ph-LPSQ/C₁₂-PA powder and fiber display two distinct peaks at $2\theta \approx 7.25^\circ$ and 18.3° corresponding to the molecular simulated ladder width $w = 1.22$ nm and the ladder thickness $t = 0.49$ nm of Ph-LPSQ, respectively. But the signals

associated with the C₁₂-PA haven't been detected. So the C₁₂-PA is amorphous. The same results are observed for the other Ph-LPSQ/C_n-PA powder and fiber.

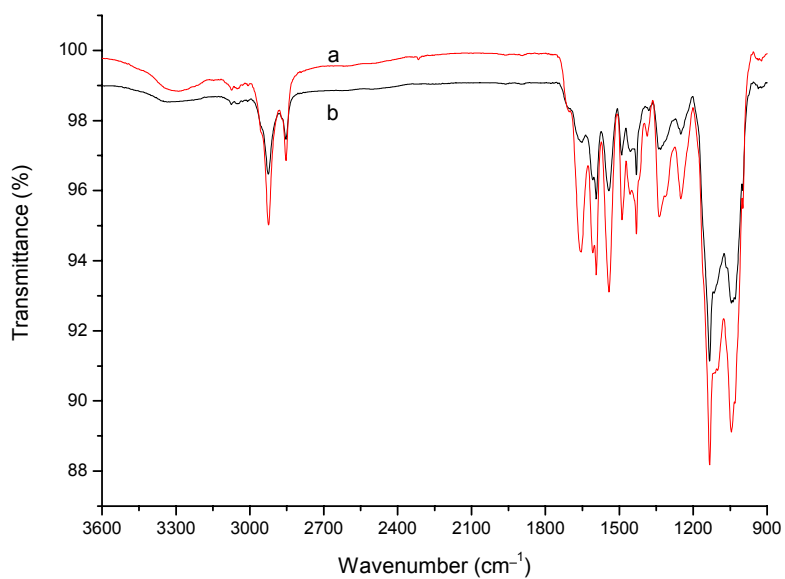


Figure S2 ATR FT-IR spectra in the range of 900-3600 cm⁻¹ of Ph-LPSQ/C₁₂-PA powder (a) and fiber (b).