

Supplementary information for:

In situ molecular composites of ladder polyphenylsilsesquioxane and polyisophthalamide and their electro-spinning fibers

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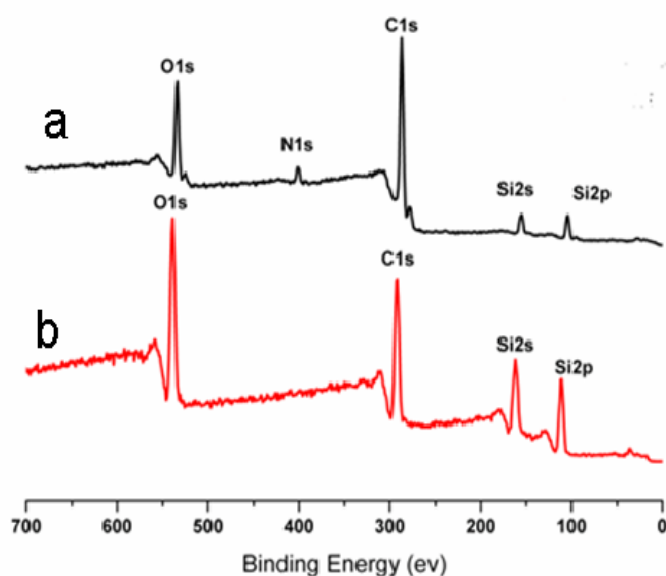


Figure S1. XPS spectra of (a) **Ph-DLPS** and (b) **Ph-LPSQ**

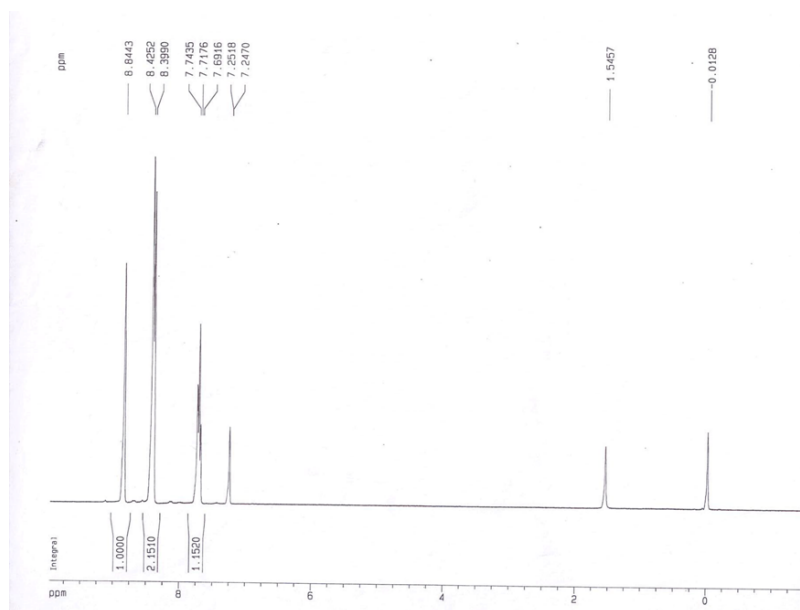


Figure S2. ¹H-NMR of IPC



Figure S3. ¹H-NMR of 5-hydroxy dimethyl isophthalate

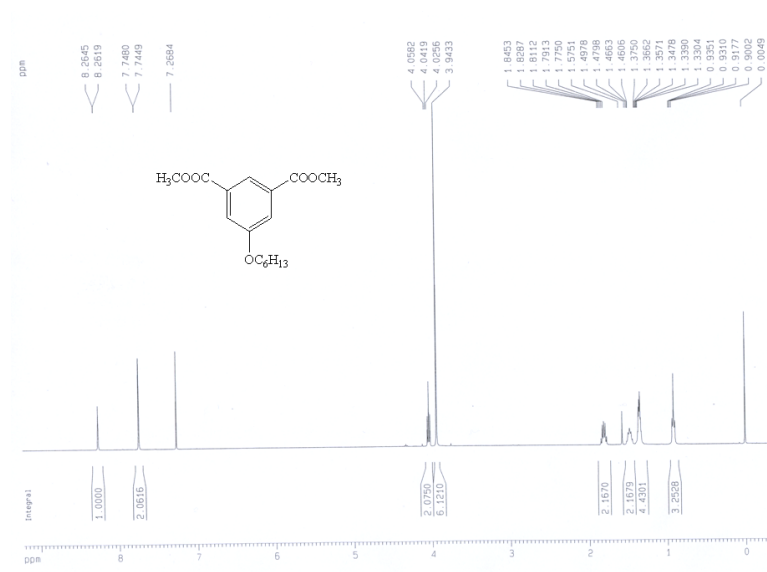


Figure S4. ¹H-NMR of 5-hexyloxy dimethyl isophthalate

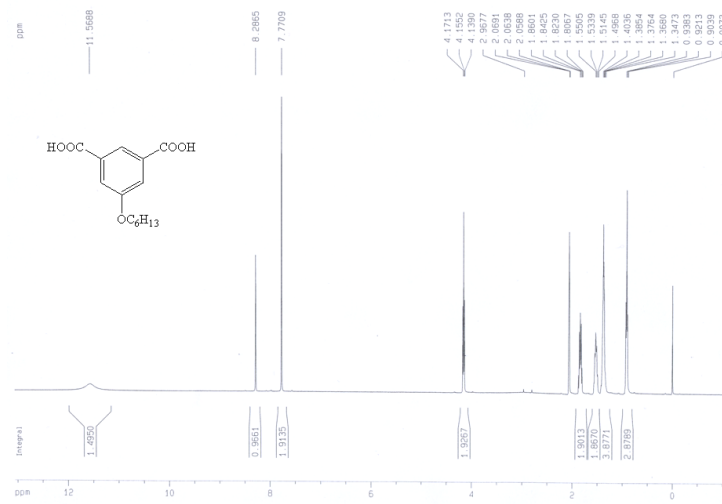


Figure S5. ¹H-NMR of 5-hexyloxy isophthalic acid

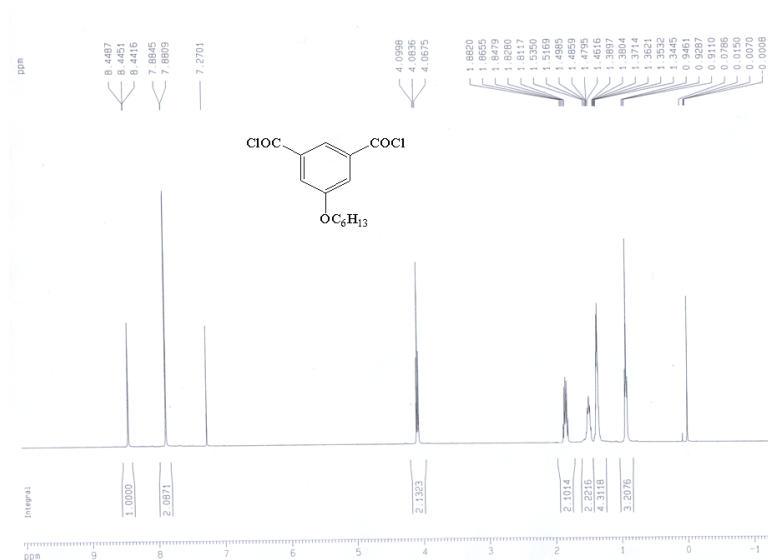


Figure S6. ^1H -NMR of 5-hexyloxy isophthalyl chloride

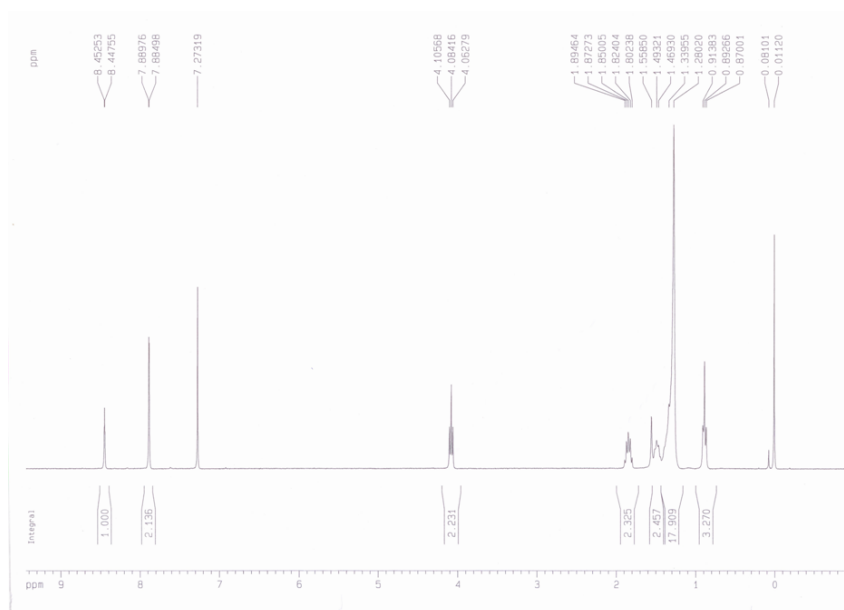


Figure S7. ^1H -NMR of 5-dodecyloxy isophthalyl chloride

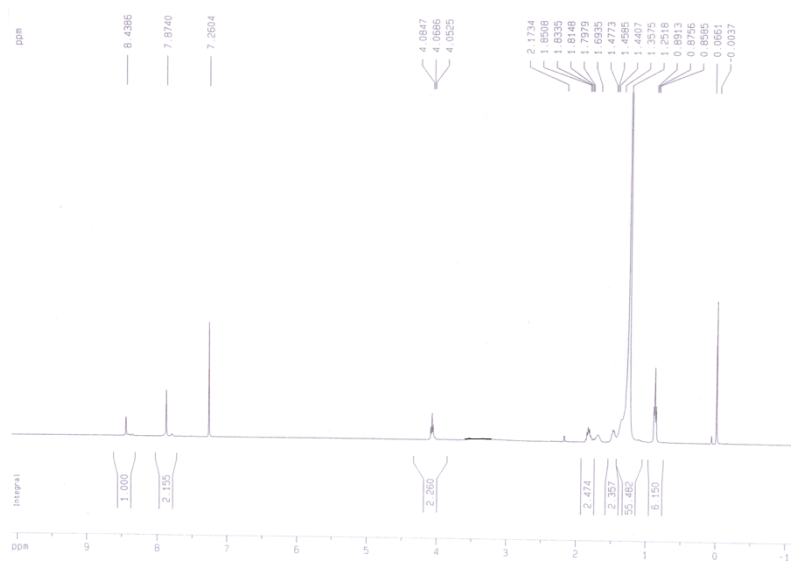


Figure S8. ^1H -NMR of 5-octadecyloxy isophthalyl chloride

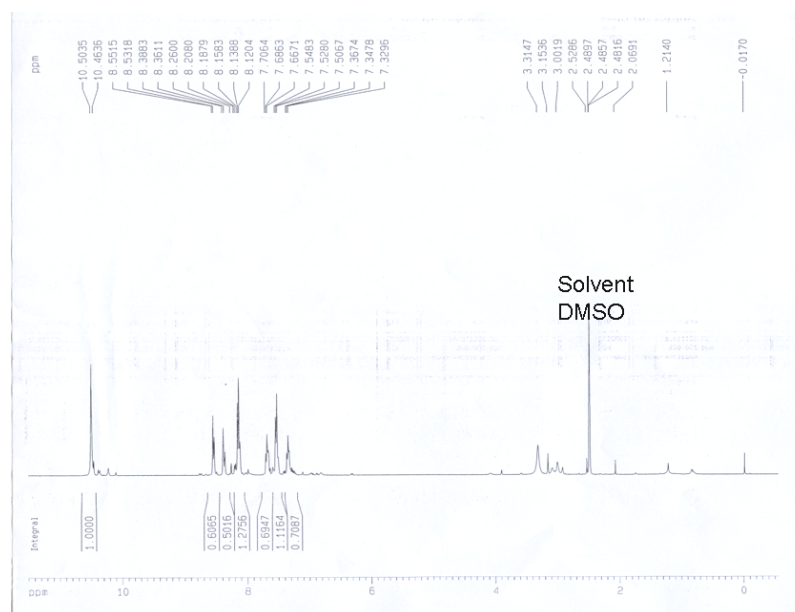


Figure S9. ^1H -NMR of PA

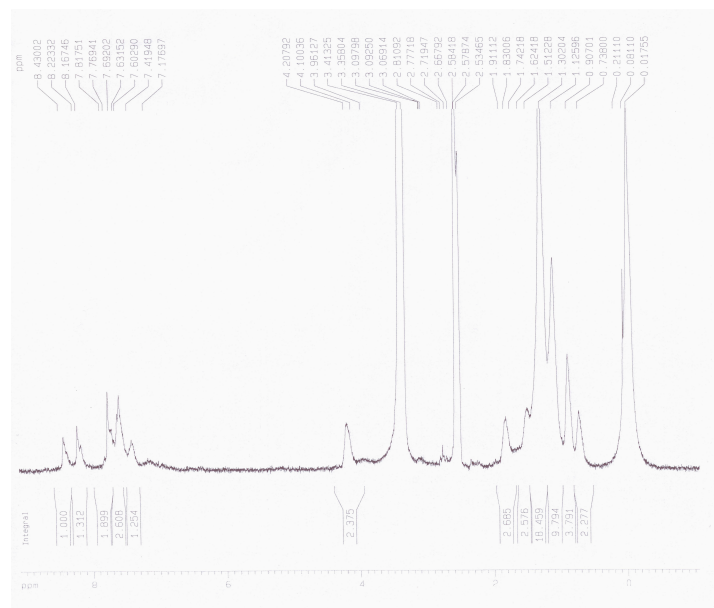


Figure S10. ¹H-NMR of C₁₂-PA

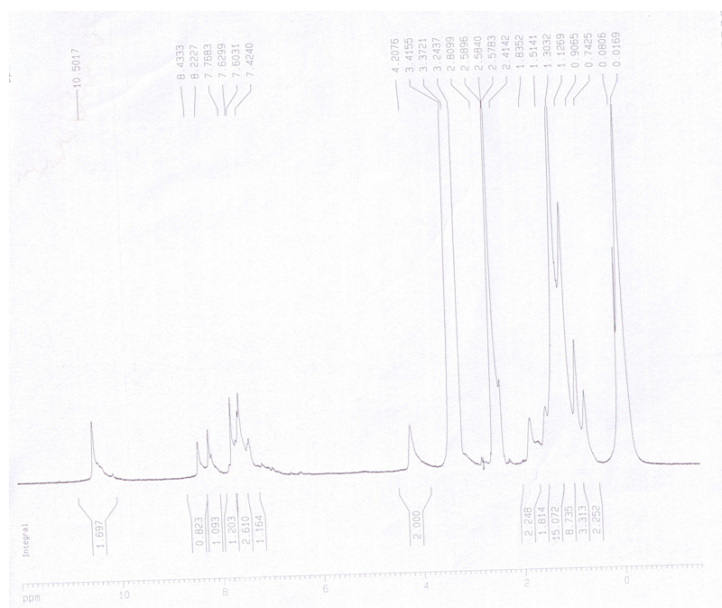


Figure S11. ¹H-NMR of C₁₈-PA

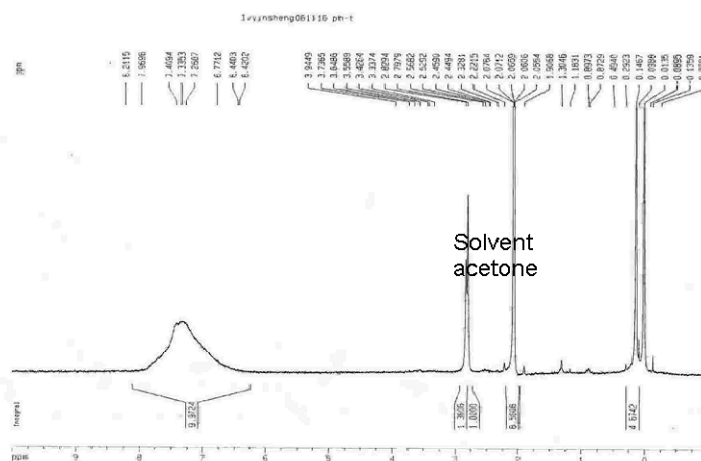


Figure S12. ¹H-NMR of Ph-LPSQ

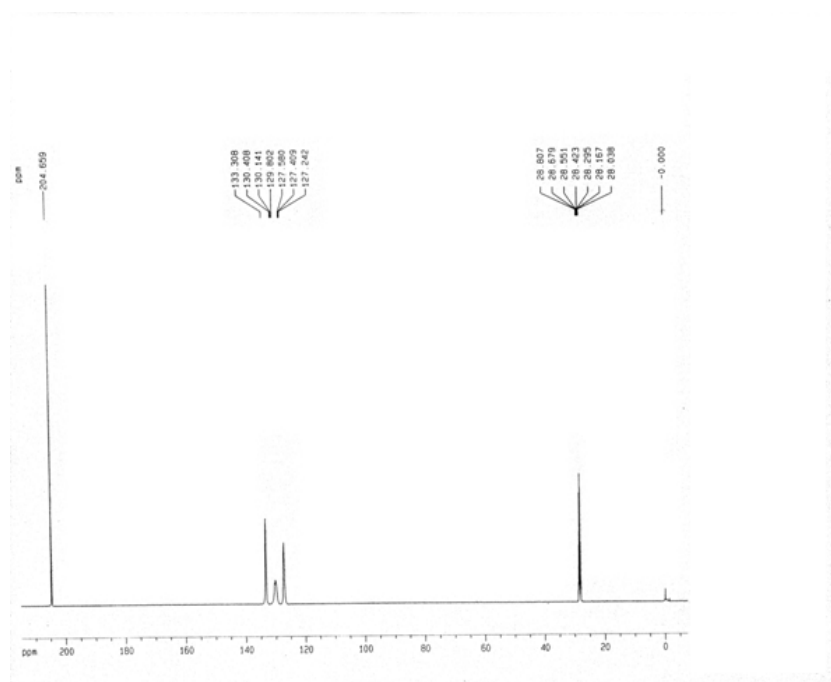


Figure S13. ¹³C-NMR of Ph-LPSQ

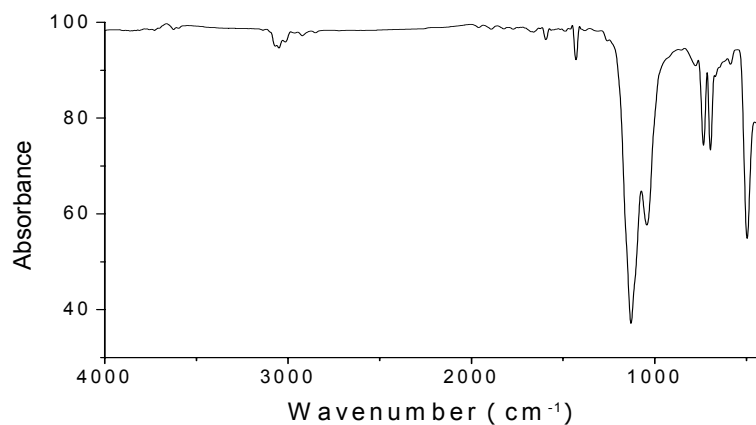


Figure S14. IR Spectrum of **Ph-LPSQ**

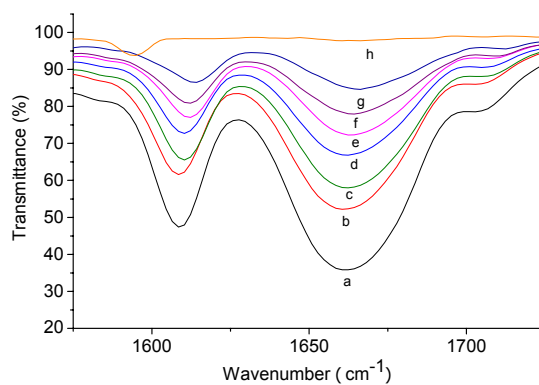


Figure S15. IR spectra of the amide I mode: a. **PA**; b. **Ph-LPSQ/PA** (10: 90 Wt %); c. **Ph-LPSQ/PA** (25: 75 Wt %); d. **Ph-LPSQ/PA** (40: 60 Wt %); e. **Ph-LPSQ/PA** (55: 45 Wt %); f. **Ph-LPSQ/PA** (70: 30 Wt %); g. **Ph-LPSQ/PA** (85: 15 Wt %); h. **Ph-LPSQ**.