Supporting Information

Hierarchical Self-assembly of Hexagonal Single-Crystal Nanosheets into 3D Layered Superlattices with High Conductivity

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Figures

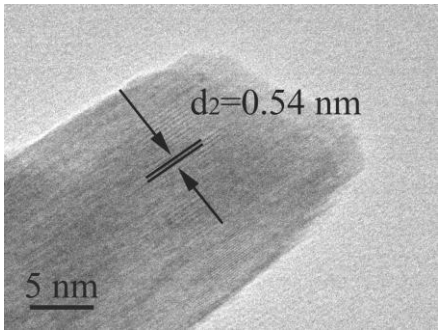


Fig. S1. HRTEM image of the 13-day aged nanorods prepared in cyclohexane.

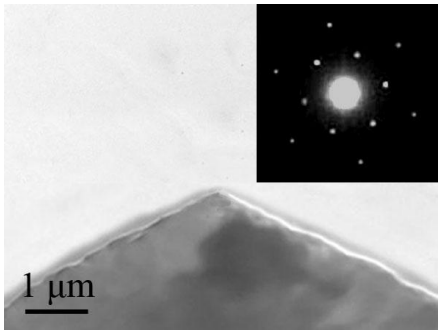


Fig. S2.TEM image with SAED pattern of 3-month aged hexagonal nanosheets.

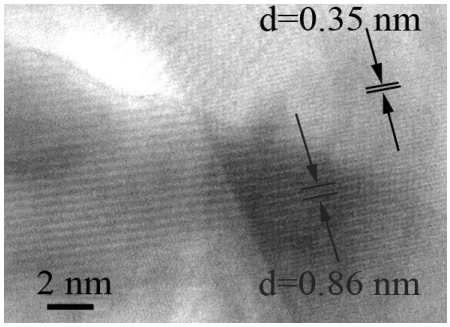


Fig. S3. HRTEM image of 3-month aged hexagonal nanosheets.

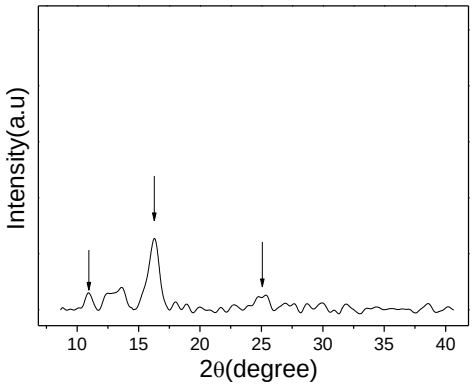


Fig. S4. XRD pattern of 3-month aged hexagonal nanosheets.

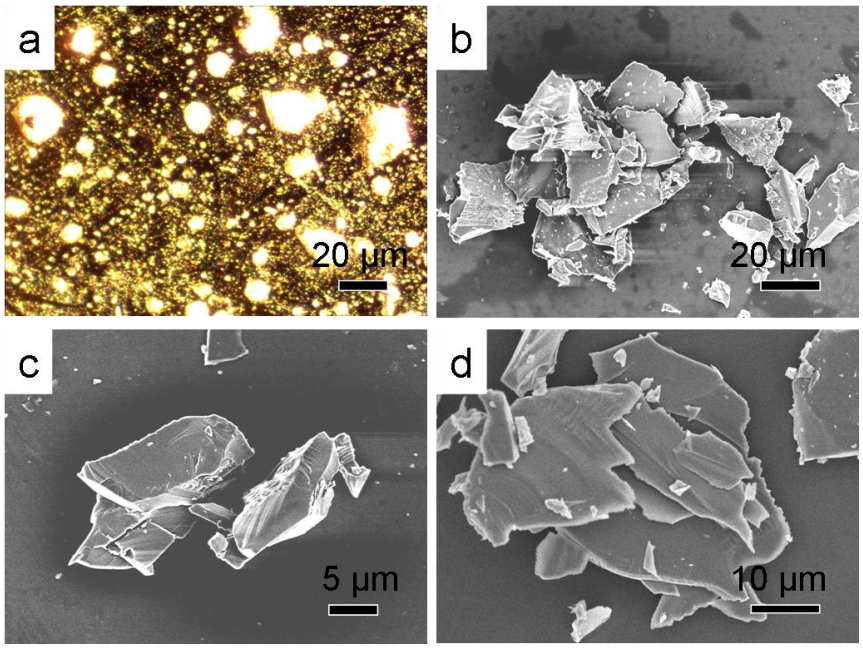


Fig. S5. (a,b) Microscope photograph and SEM image of 5-month aged layered crystals with superlattice structure in cyclohexane. (c,d) SEM images of 5-month aged layered crystals with superlattice structure in hexane and octane.

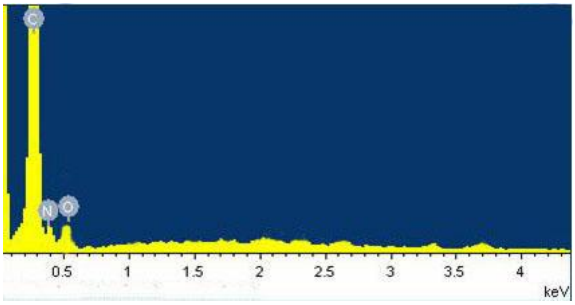


Fig. S6. EDS spectrum of 5-month aged layered crystals with superlattice structure in cyclohexane.

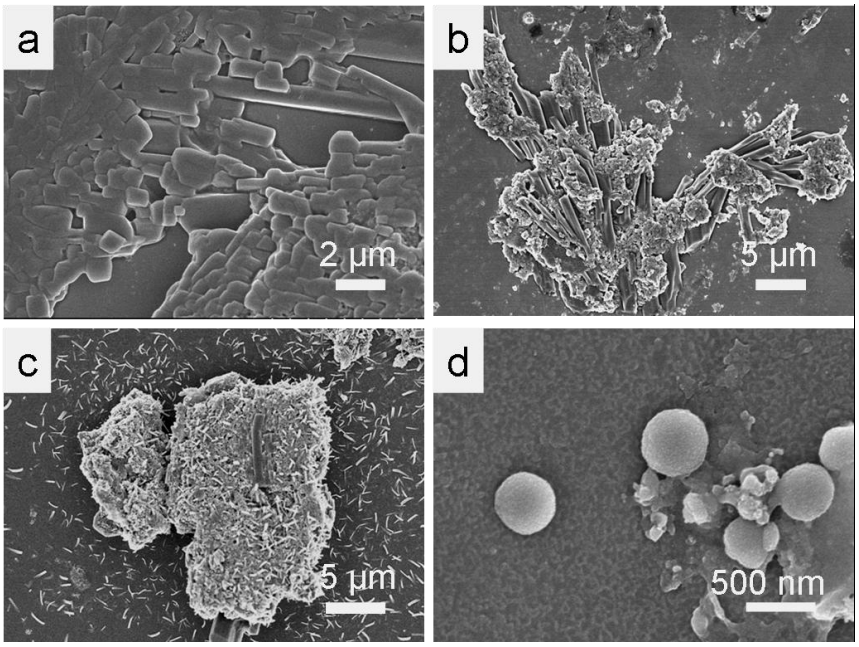


Fig. S7. SEM images of PANI after nanofibers are aged in (a) hexane; (b) octane; (c) benzene; (d) ethanol for 13 days, respectively.

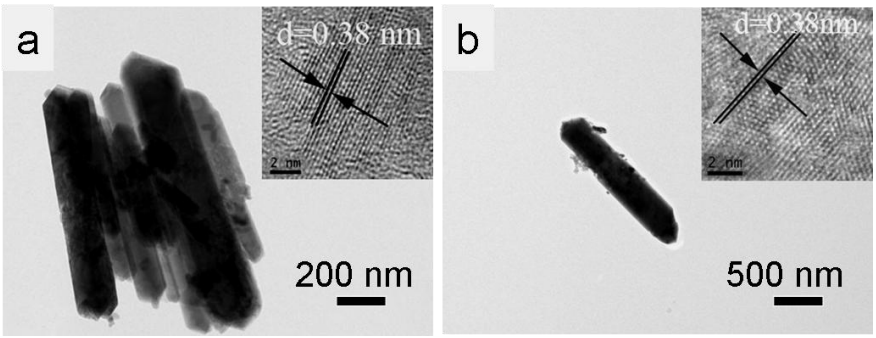
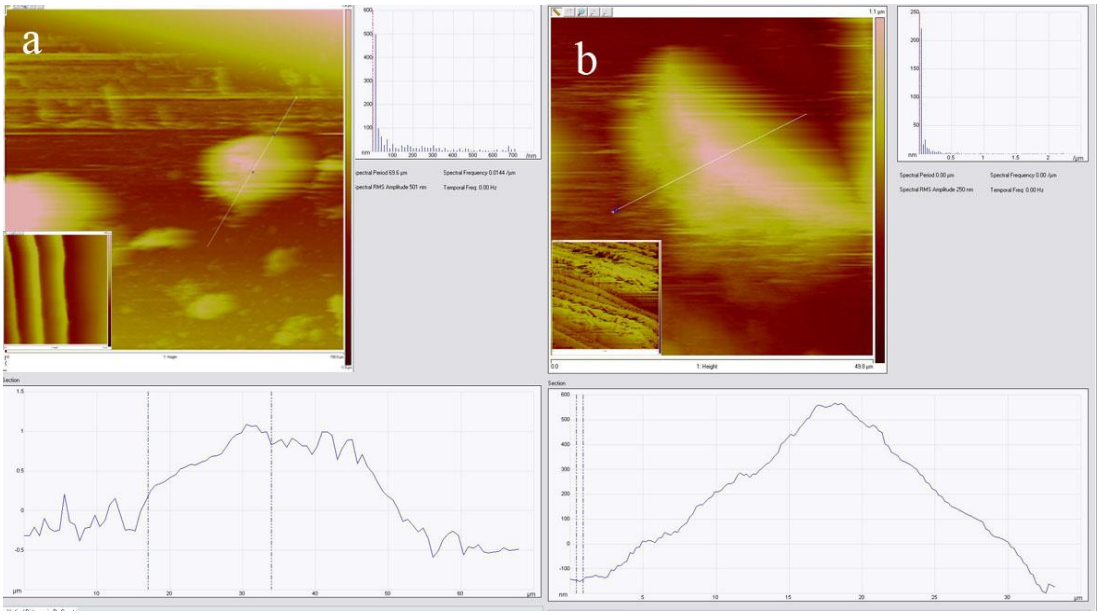
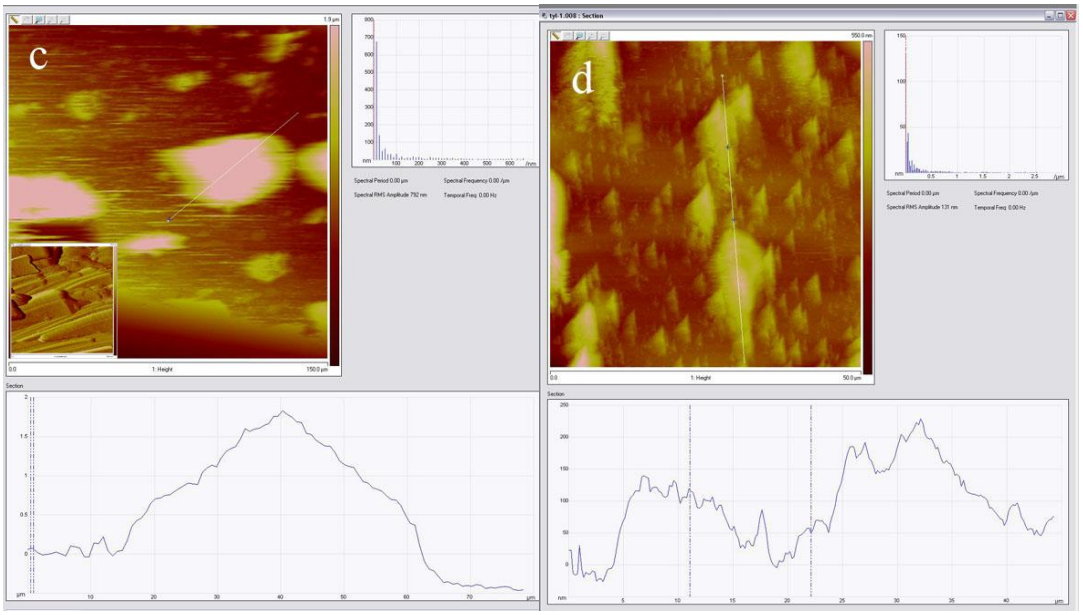


Fig. S8. TEM with HRTEM images of the 13-day aged nanorods prepared in (a) hexane and (b) octane, respectively.





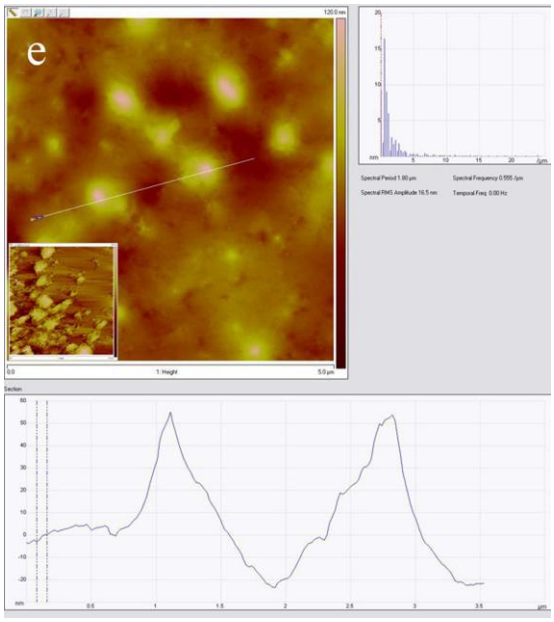


Fig. S9. (a-e) STM images and corresponding height profile of the 5-month aged PANI crystals with superlattice structure in (a) clyclohexane; (b) hexane; (c) octane; (d) benzene; (e) ethanol, respectively.