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Supporting Information

Pyrolysis of Naphthol Functionalized Polytriarylamine for Efficient Sodium-

Ion Storage

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| PDNOH | S _{BET} ^a (m ² /g) | V _{total} ^b (cm ³ /g) | Pore size ^c (nm) | S _{micro} ^d (m²/g) | V ^e _{micro} (cm ³ /g) |
|---------|--|---|--------------------------------|---|---|
| @650 °C | 298.3 | 0.109 | 1.583 | 321.1 | 0.100 |
| @800 °C | 112.5 | 0.034 | 1.355 | 102.0 | 0.033 |

Table S1. Surface properties of PDNOHs.

^{*a*}BET surface area, ^{*b*}Total pore volume, ^{*c*}Average pore diameter, ^{*d*}Surface are of micropore calculated by t-Plot analysis, ^{*e*}Pore volume of micropore calculate by t-Plot analysis.

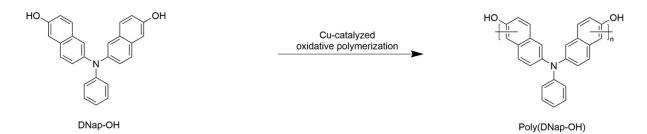


Figure S1. Polymerization scheme of Poly(DNap-OH).

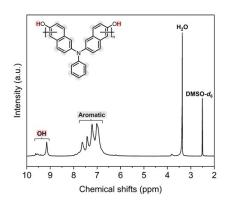


Figure S2. ¹H-NMR spectrum of Poly(DNap-OH) in DMSO-*d*₆.

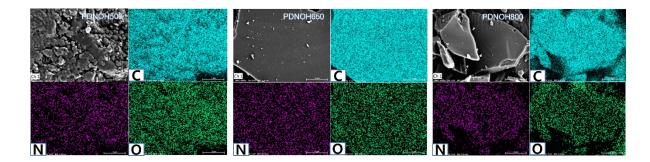


Figure S3. SEM-EDS mapping of PDNOHs.

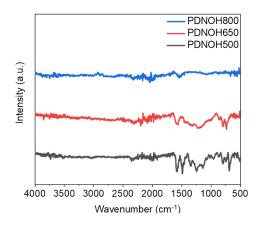


Figure S4. FT-IR spectra of PDNOHs.

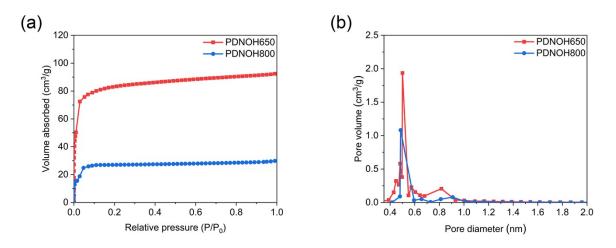


Figure S5. (a) Ar adsorption isotherms, (b) Pore-size distribution of PDNOHs.

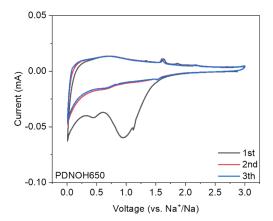


Figure S6. CV results of PDNOH-650.

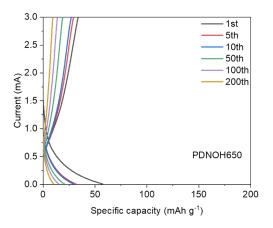


Figure S7. Charge/discharge curves of PDNOH-650.

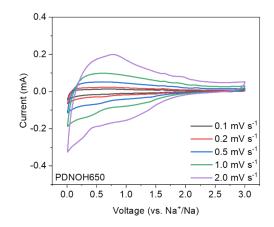


Figure S8. CV results of PDNOH-650 at various sweep rates.

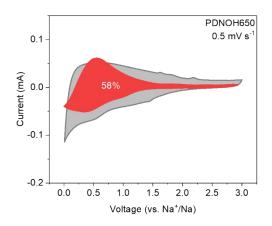


Figure S9. Contribution of surface-induced Na⁺ storage in PDNOH-650 (0.5 mV s⁻¹).

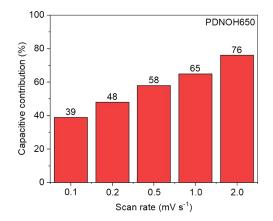


Figure S10. Contribution of surface-induced Na⁺ storage at various sweep rates in PDNOH-650.

References

[1] T. Kim, T. Lee, Y. R. Yoon, W. S. Heo, S. Chae, J. W. Kim, B.-K. Kim, S. Y. Kim, J. Lee,

J. H. Lee, Small, 2024, 2400333.