Supporting Information

Deep Eutectic Solvent-based Eutectogel Consisting of $ZnCl_2$ and Lignin for Quasi-solid-state Supercapacitors

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Table S1. The components of lignin-DES solution.

Constituents	DES (g)	Lignin (g)
DLPH-0	-	-
DLPH-1	~ 20	0.13
DLPH-2	~ 20	0.25

Table S2. Assignments of major signals in the 2D HSQC spectra of the lignin.

Labels	δC/δH (ppm)	Assignments
OCH_3	55.9/3.73	C-H in methoxyls
A_γ	59.6-60.8/3.37-3.72	C_γ-H_γ in β-O-4 substructures (A)
A'_γ	63.6/4.36	C_γ-H_γ in γ-acylated β-O-4 substructures (A')
$S_{2,6}$	104.1/6.72	$C_{2,6}$-$H_{2,6}$ in etherified syringyl units (S)
G_5	114.4/6.73	C_5-H_5 in guaiacyl units (G)
$PB_{2,6}$	131.0/7.63	$C_{2,6}$-$H_{2,6}$ in p-hydroxybenzoate (PB)

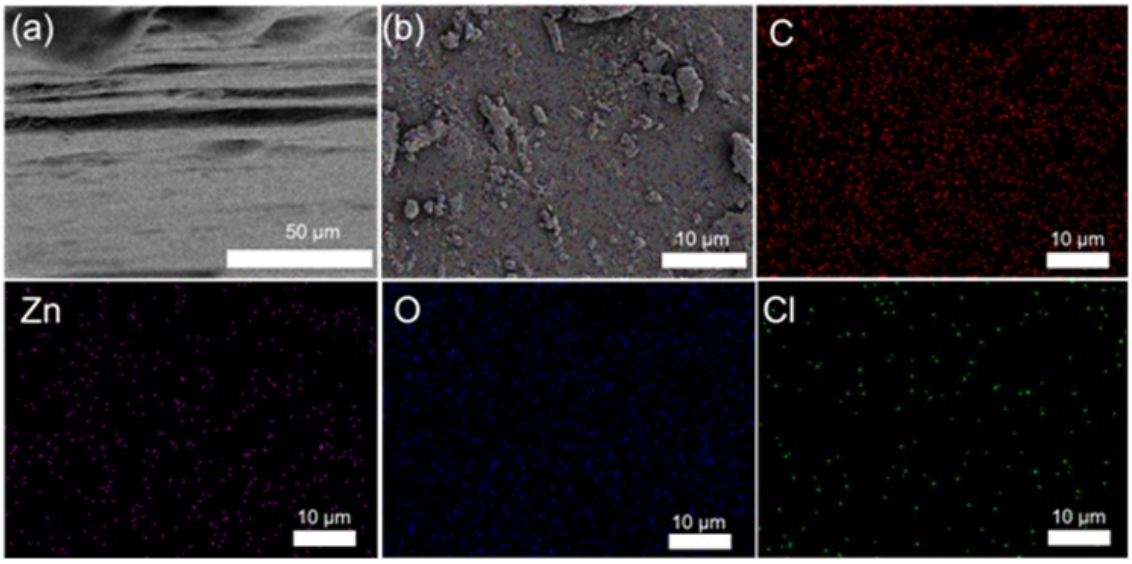

Fig. S1. SEM cross-section (a) and surface (b) images, and elemental mapping images of DLPH-2.

Fig. S2. The photograph of eutectogel adhering to steel after multiple cycles

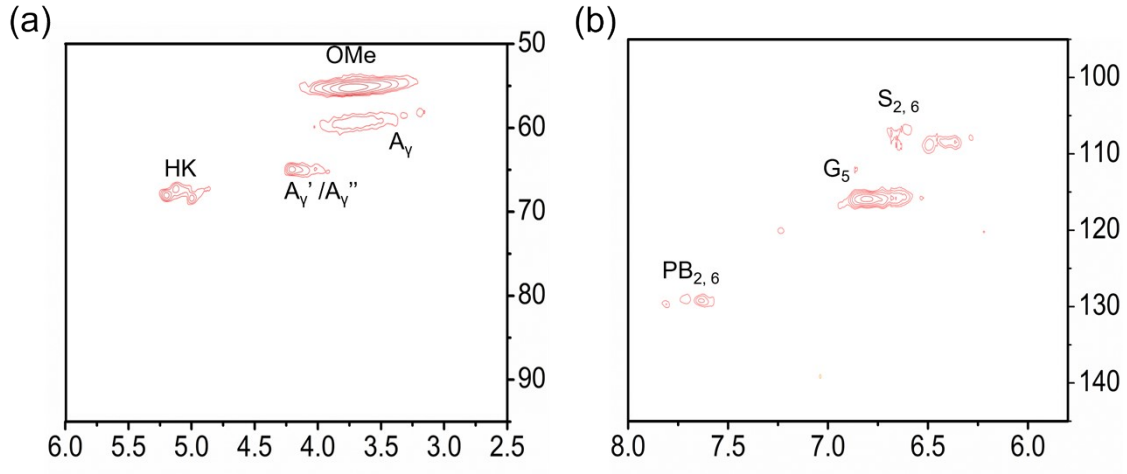

Fig. S3 Aromatic regions and side-chain regions of the DES-extracted lignin.

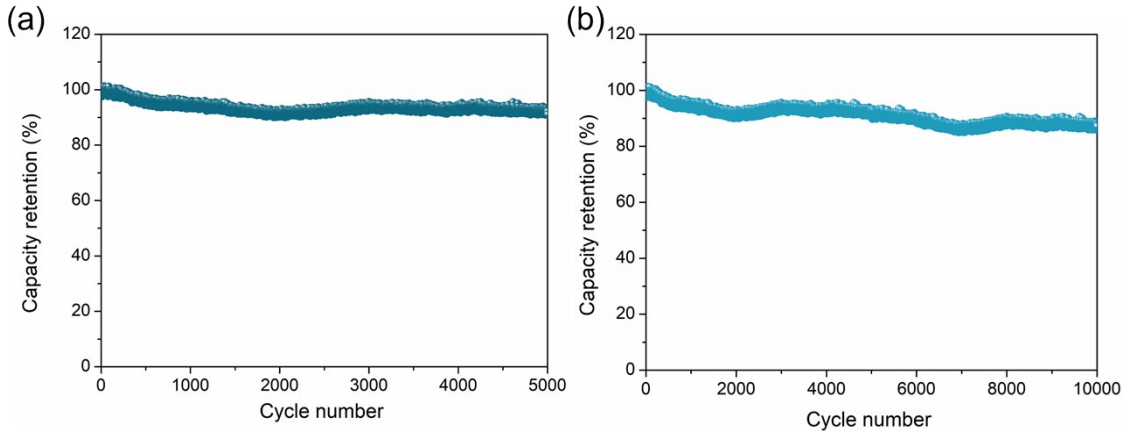

Fig. S4. The Capacity retention of ZHS during 5000 cycles (a) and 10000 cycles (b).

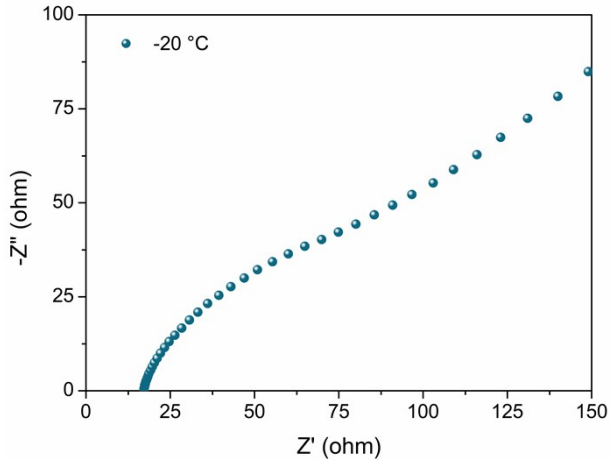

Fig. S5. Nyquist plots of DLPH-2 at -20 °C.