Supporting Information

# Preparation and properties of bio-based degradable polybenzoxazines containing dihydrazone-based dynamic bonds

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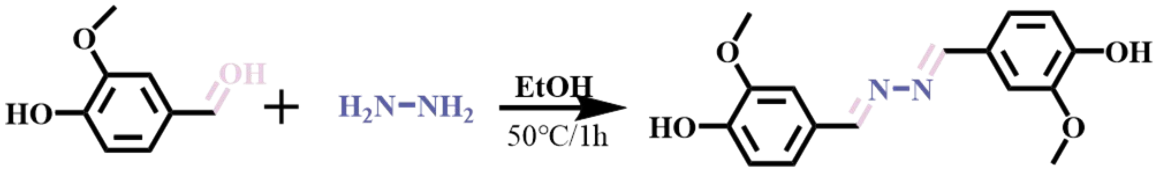


Scheme S1. Synthesis of dihydrazol-containing ketol

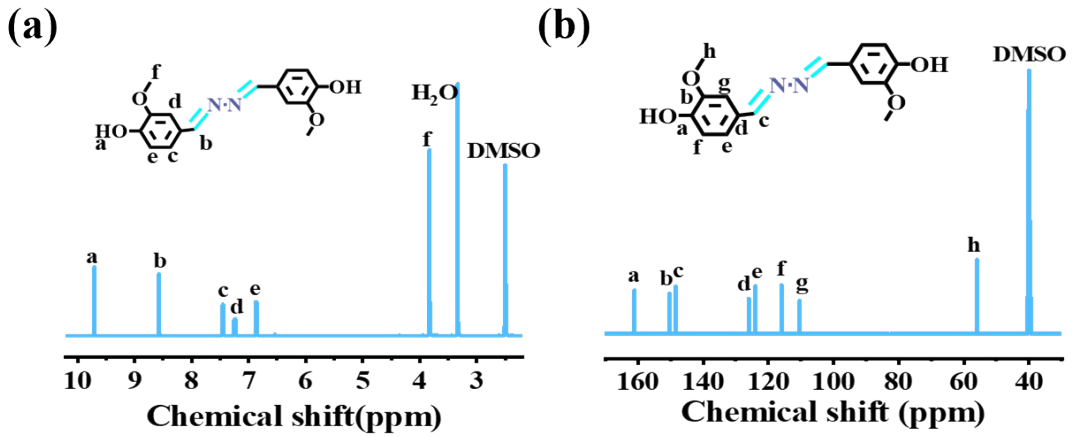


Figure S1. (a) $^{1}$HNMR and (b) $^{13}$C NMR of HDE.

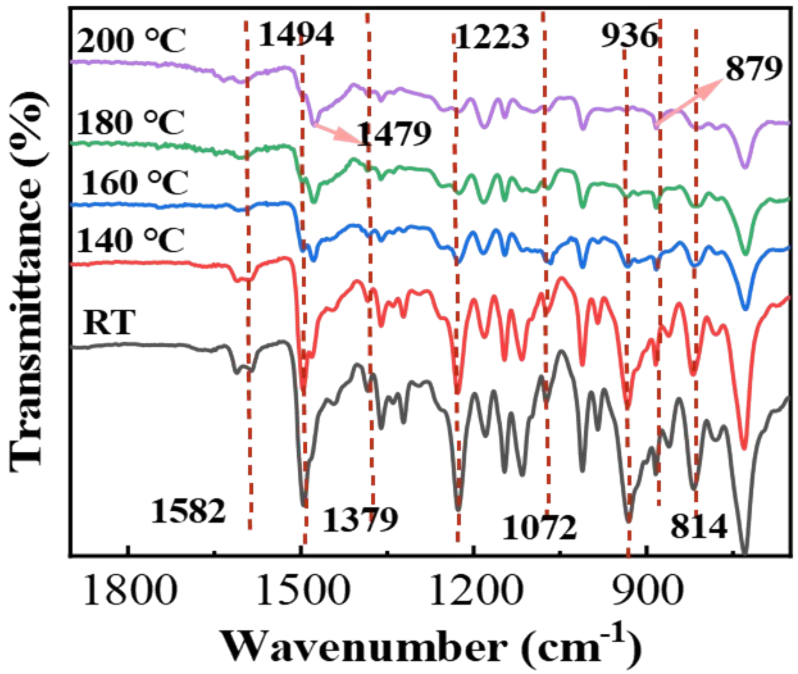


Figure S2. FTIR spectrum of BA-F at different stages

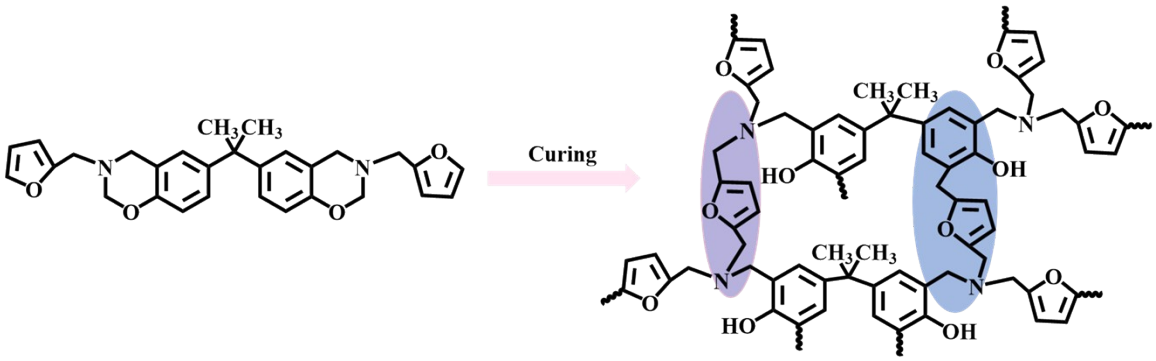


Figure S3. Curing mechanism of BA-F

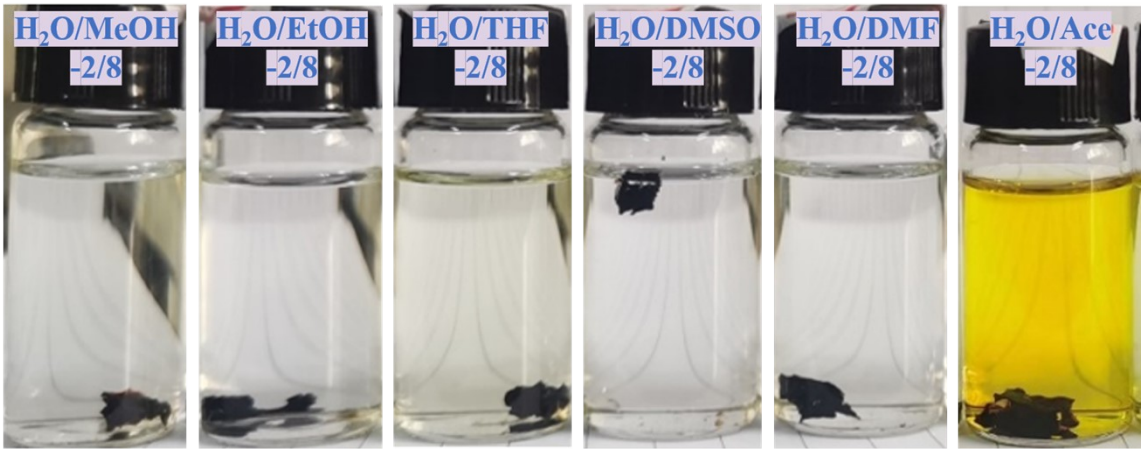


Figure S4 Dissolution experiments of PHDF in different solvents (water/MeOH, EtOH, THF, DMSO, DMF in the ratio of 2/8 at room temperature

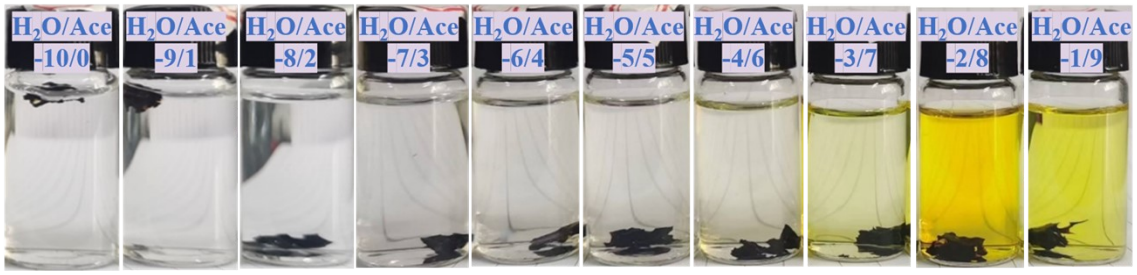


Figure S5 Dissolution experiments of PHDF in the ratio of water/Ace from 10/0 to 1/9) at room temperature at room temperature