

Figure S1. Deconvolution of FTIR spectrum of Synpitch.

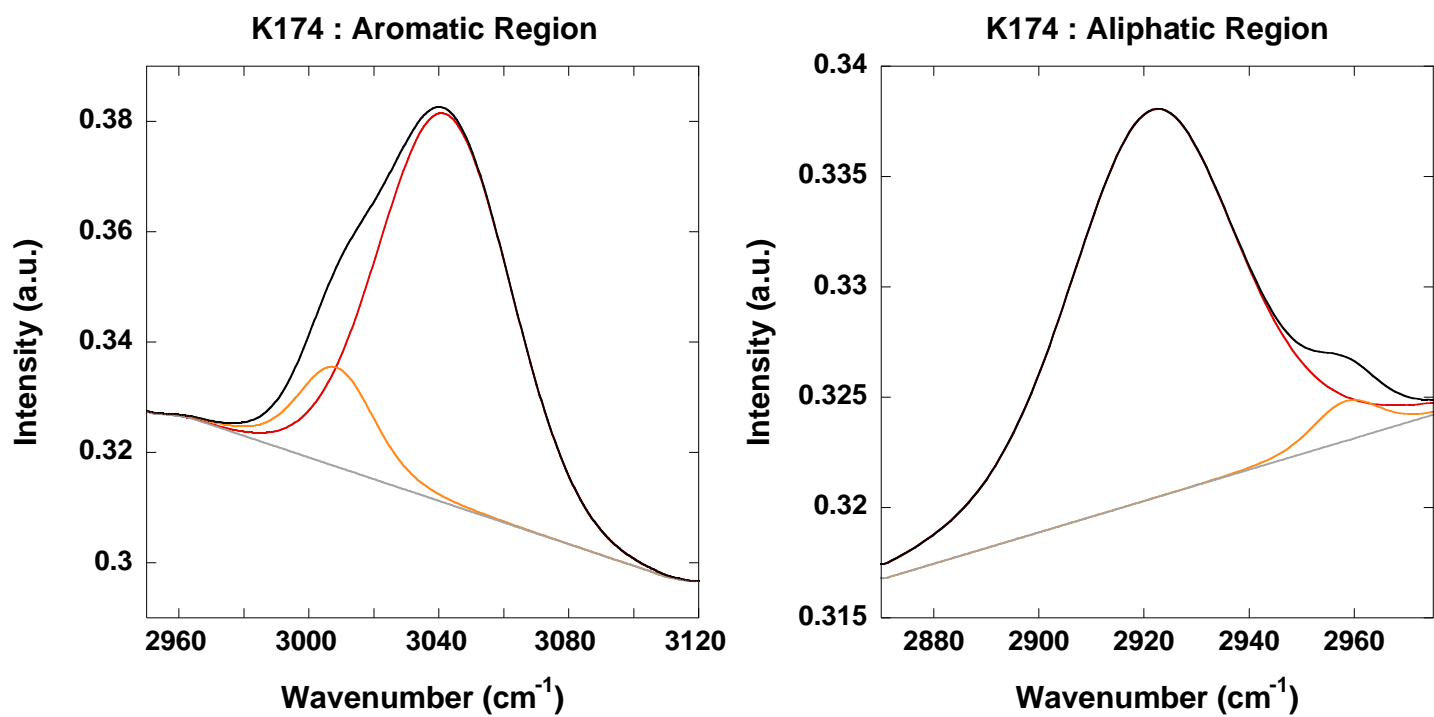


Figure S2. Deconvolution of FTIR spectrum of K174.

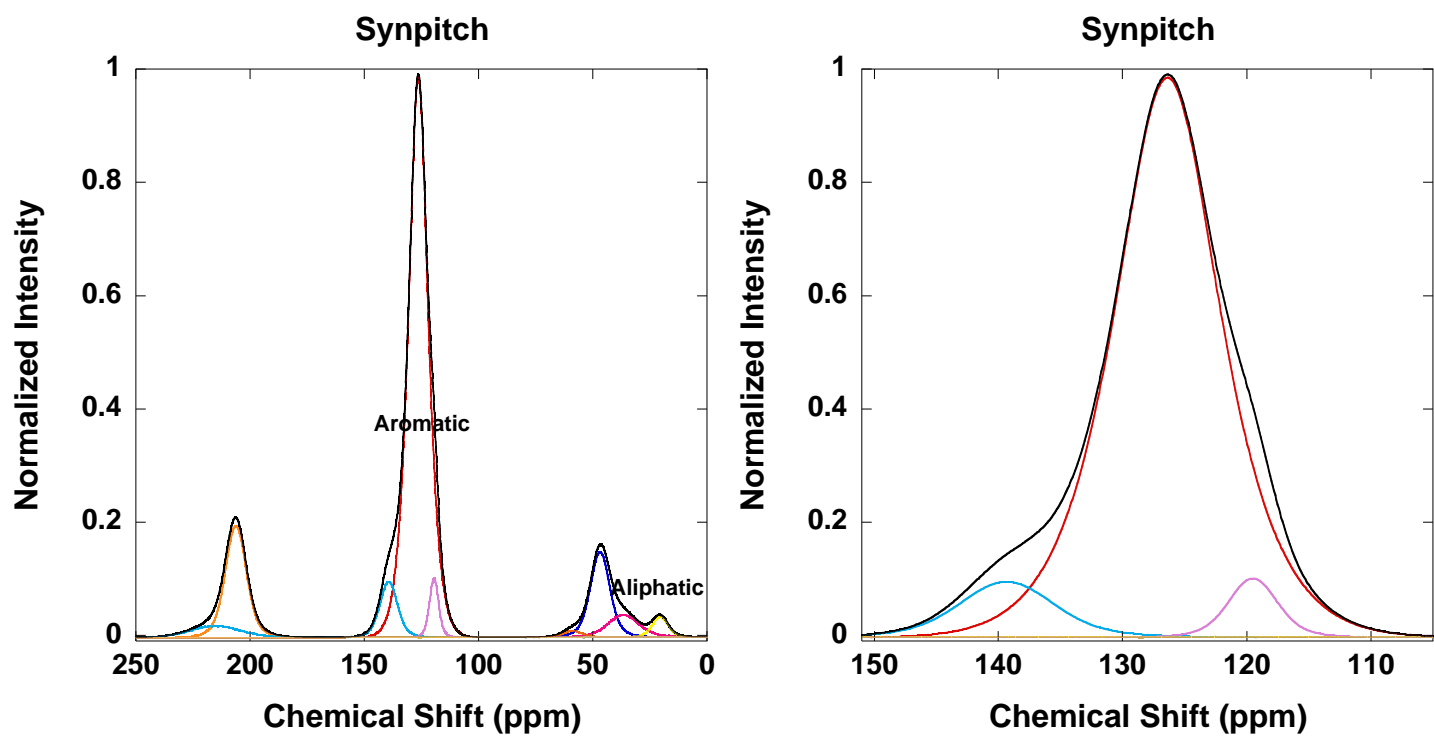


Figure S3. Deconvolution of NMR spectrum of Synpitch.

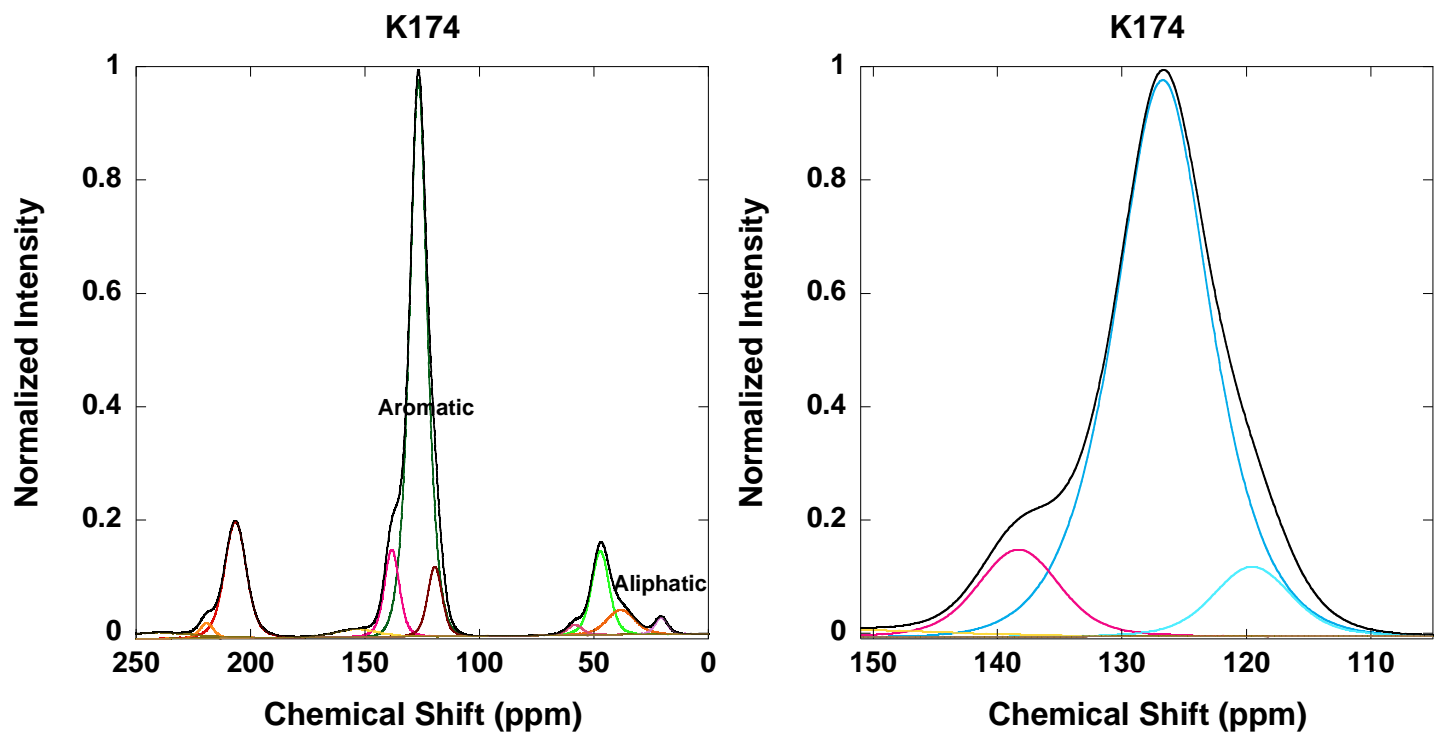


Figure S4. Deconvolution of NMR spectrum of K174.

For the FTIR spectra, the deconvolutions were performed for determining aromaticity in the aromatic and aliphatic regions around  $\sim 2950 - 3120 \text{ cm}^{-1}$  and  $\sim 2870 - 2970 \text{ cm}^{-1}$  respectively as shown in Figures S1 and S2. Figures S3 and S4 show the deconvolutions for NMR spectra of Synpitch and K174 respectively. The relative ratio of catacondensed versus pericondensed aromatics is calculated using the area under the peaks in the regions  $\sim 130 - 150 \text{ ppm}$  and  $\sim 110 - 140 \text{ ppm}$  respectively.