

Figure S1. N1s spectra of UF pyrolytic char

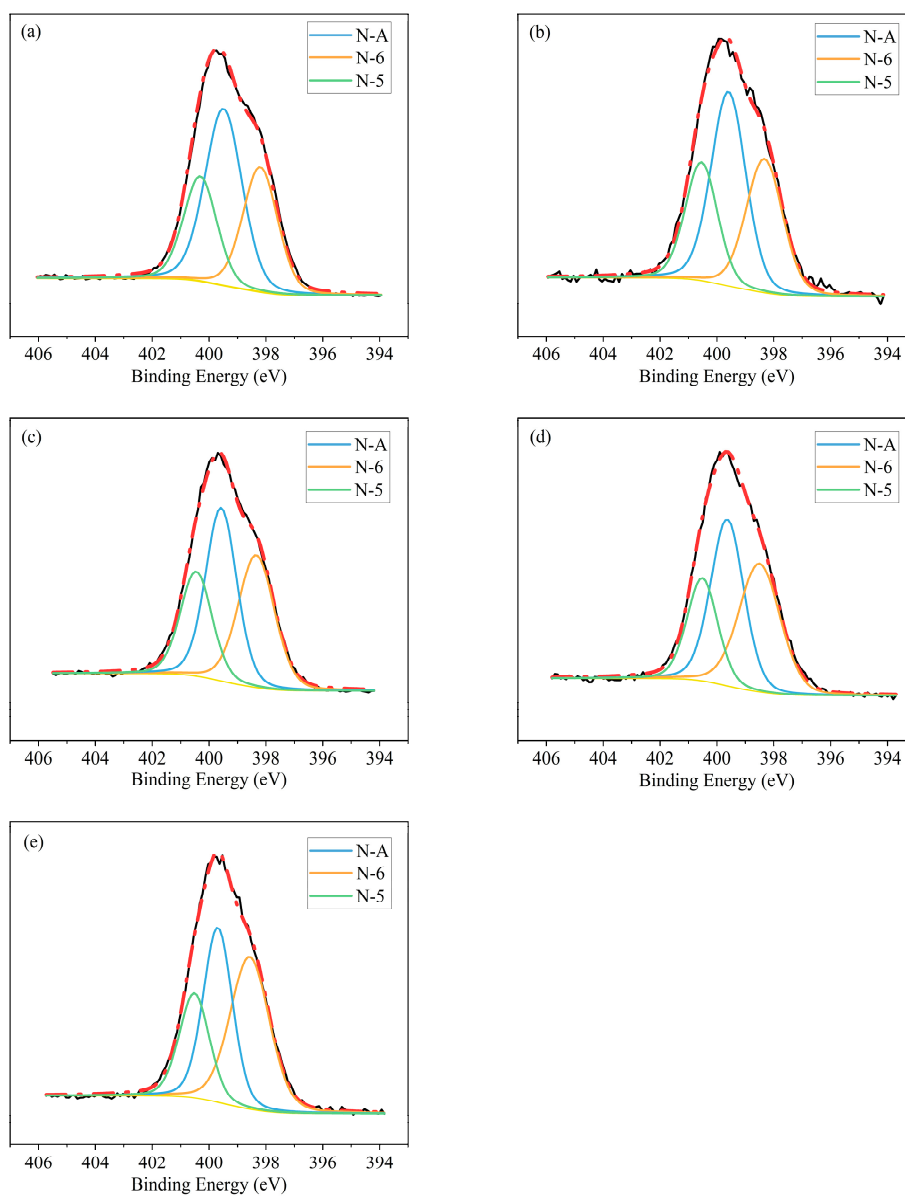


Figure S2. N₁s spectra of ethyl maltol-UF co-pyrolytic chars: (a) Ethyl maltol:UF=1:1; (b) Ethyl maltol:UF=3:2; (c) Ethyl maltol:UF=7:3; (d) Ethyl maltol:UF=4:1; (e) Ethyl maltol:UF=9:1.

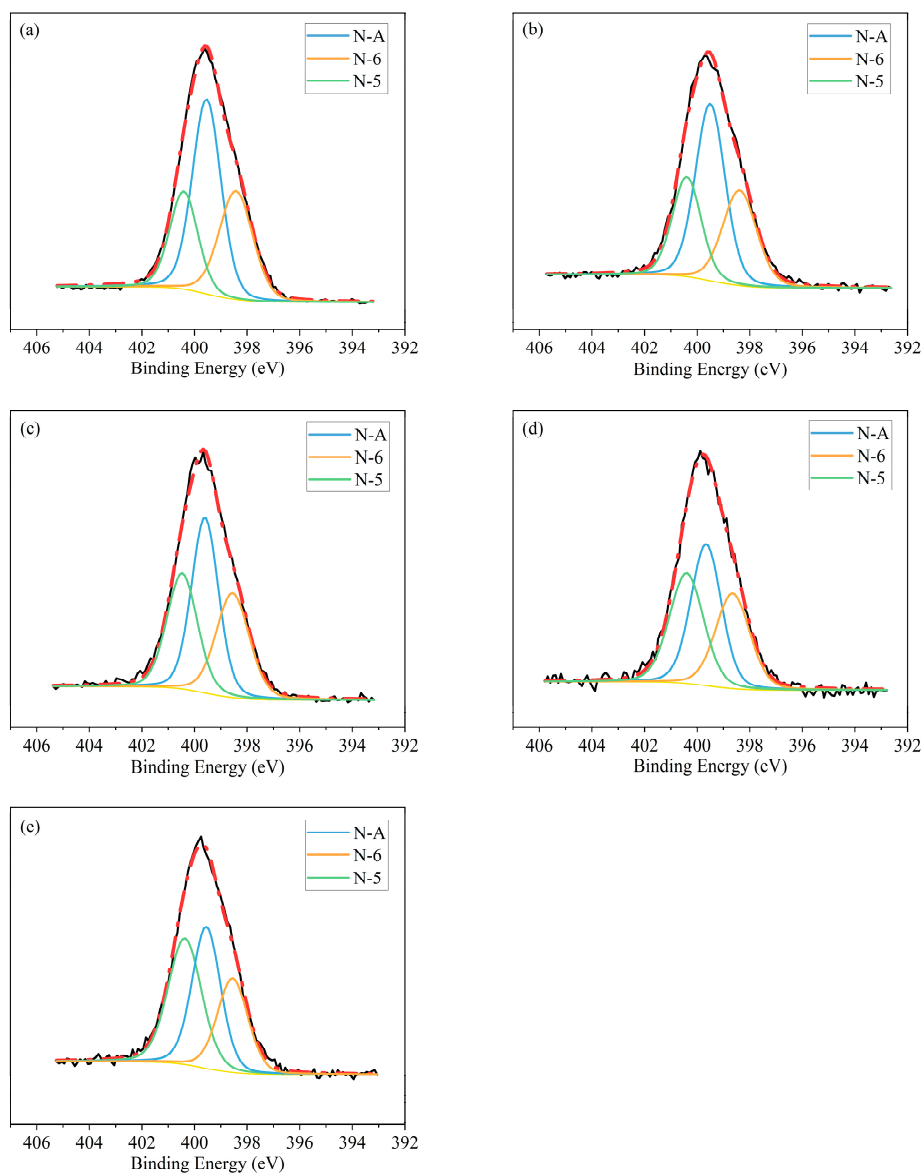


Figure S3. N1s spectra of DMHF-UF co-pyrolytic chars: (a) DMHF:UF=1:1; (b) DMHF:UF=3:2; (c) DMHF:UF=7:3; (d) DMHF:UF=4:1; (e) DMHF:UF=9:1.

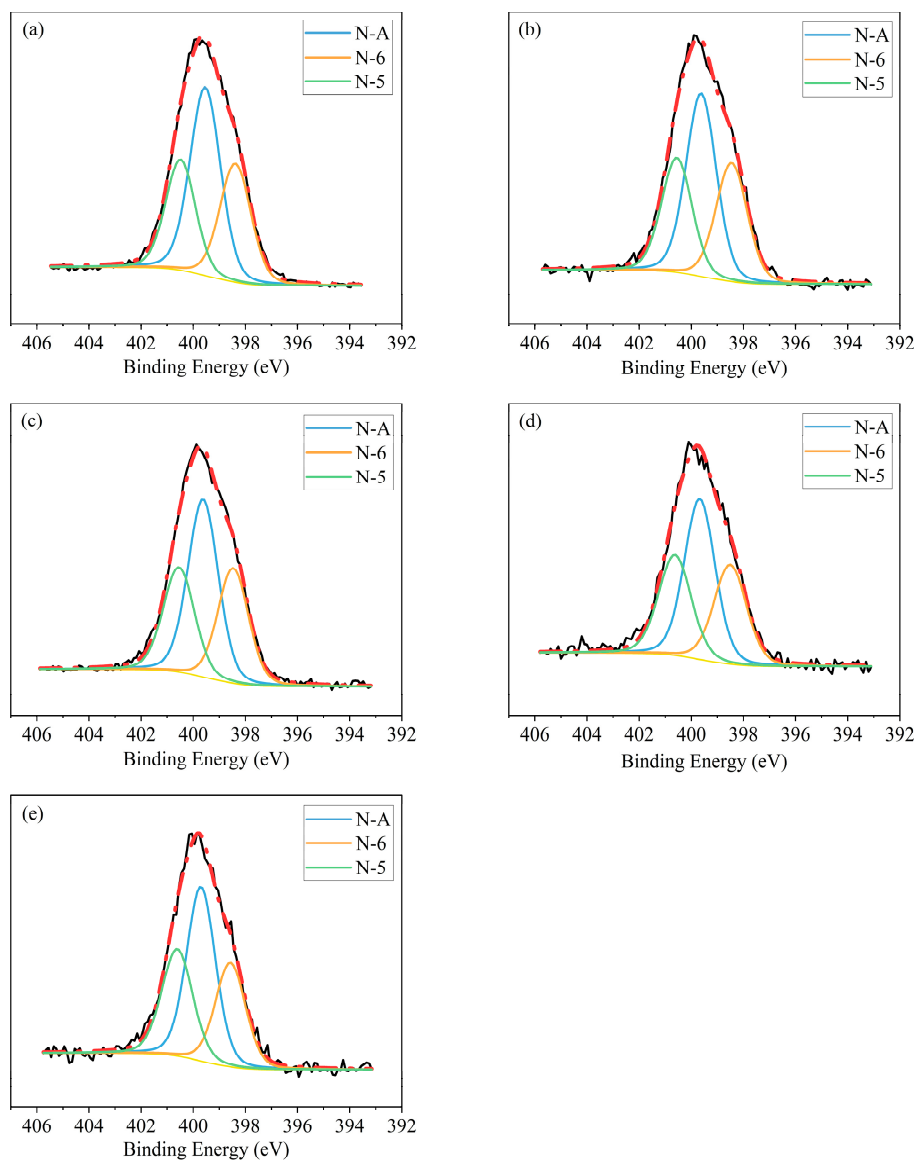


Figure S4. N₁s spectra of glucose-UF co-pyrolytic chars: (a) Glucose:UF=1:1; (b) Glucose:UF=3:2; (c) Glucose:UF=7:3; (d) Glucose:UF=4:1; (e) Glucose:UF=9:1.