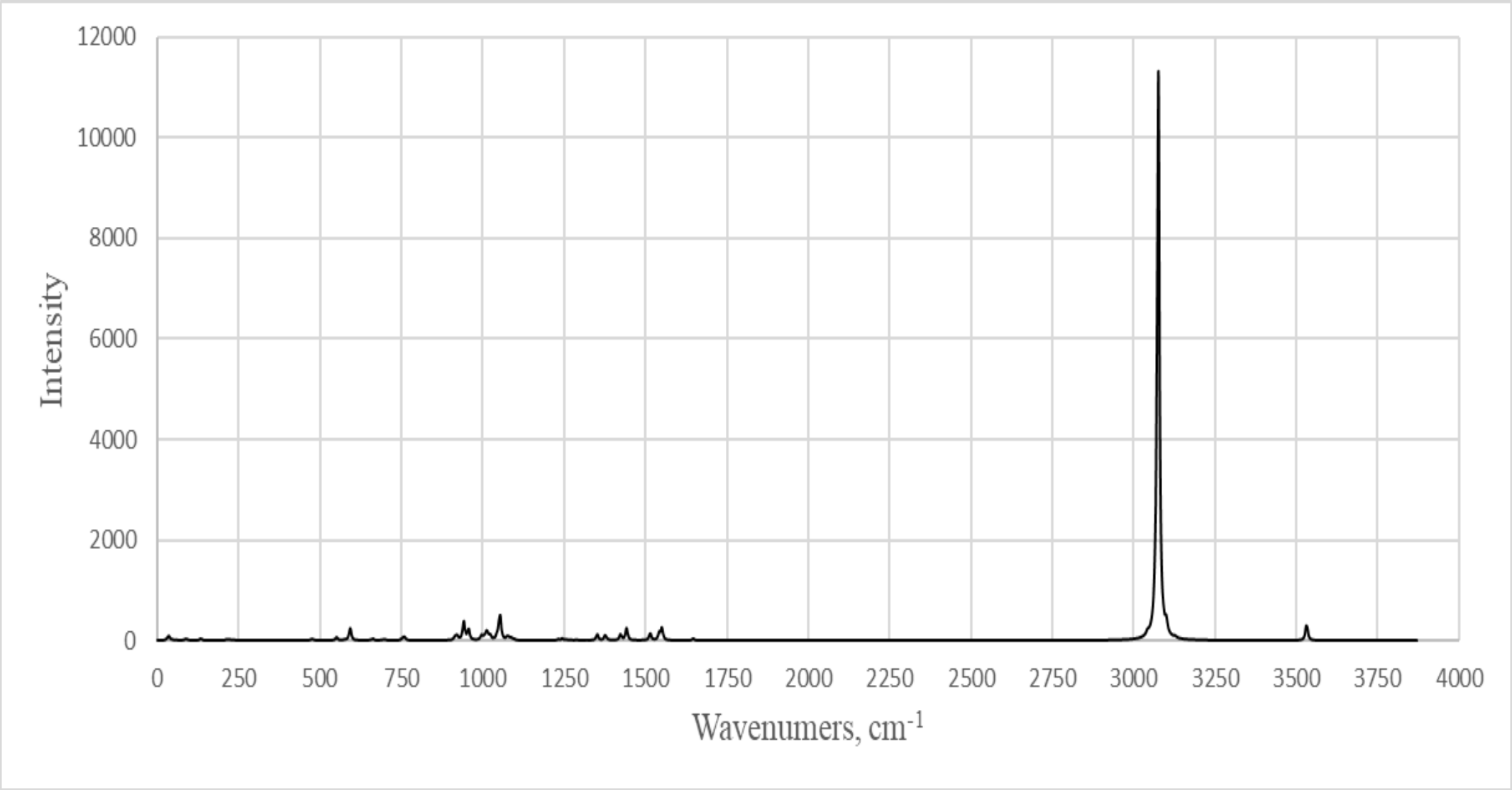

Figure S1. Calculated Infrared spectrum for three 5-vinyl-1*H*-tetrazole molecules system.

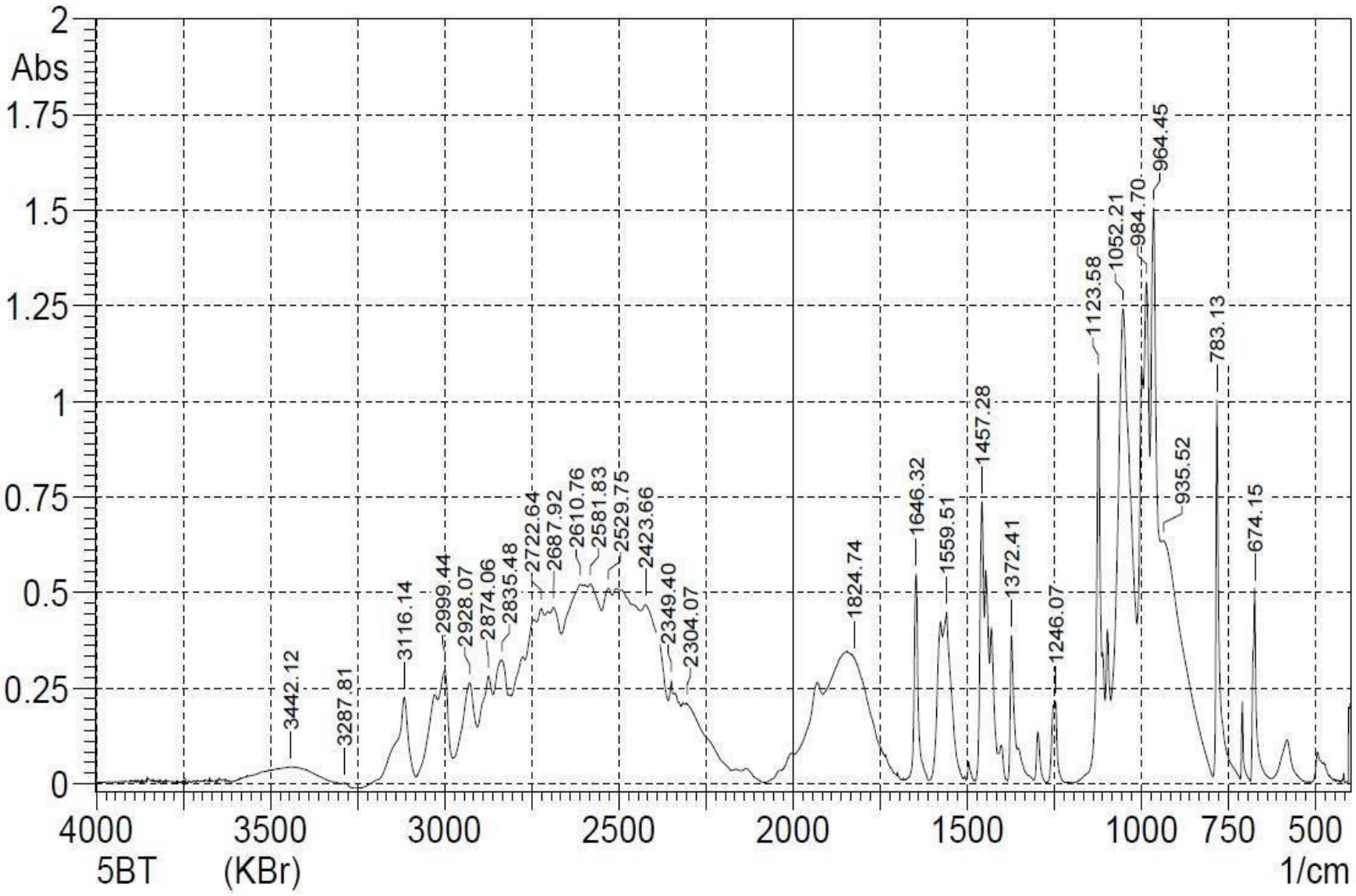

Figure S2. IR spectrum 5-vinyl-1*H*-tetrazole (in KBr).

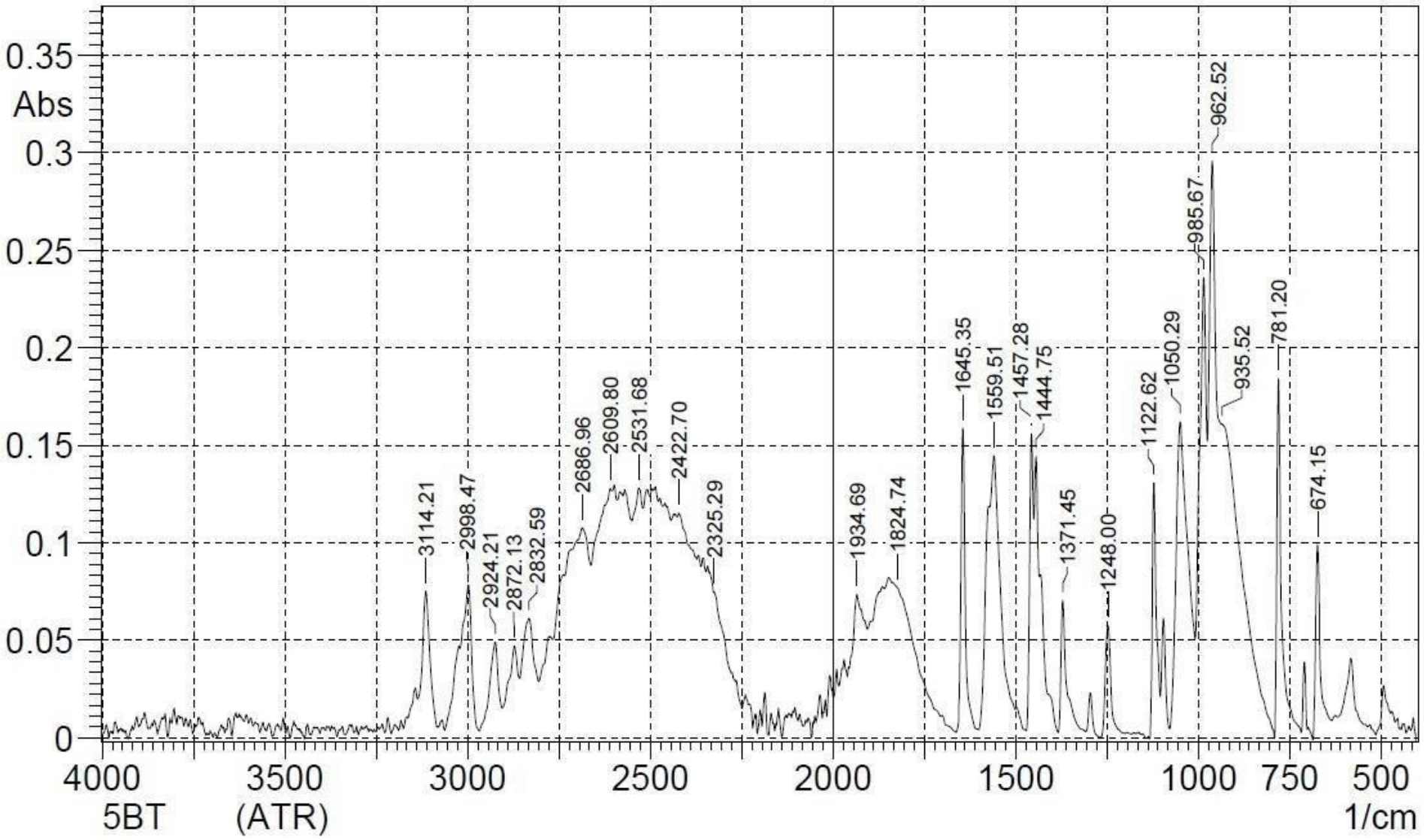

Figure S3. IR spectrum of 5-vinyl-1*H*-tetrazole (obtained using attenuated total reflectance (ATR) accessory).

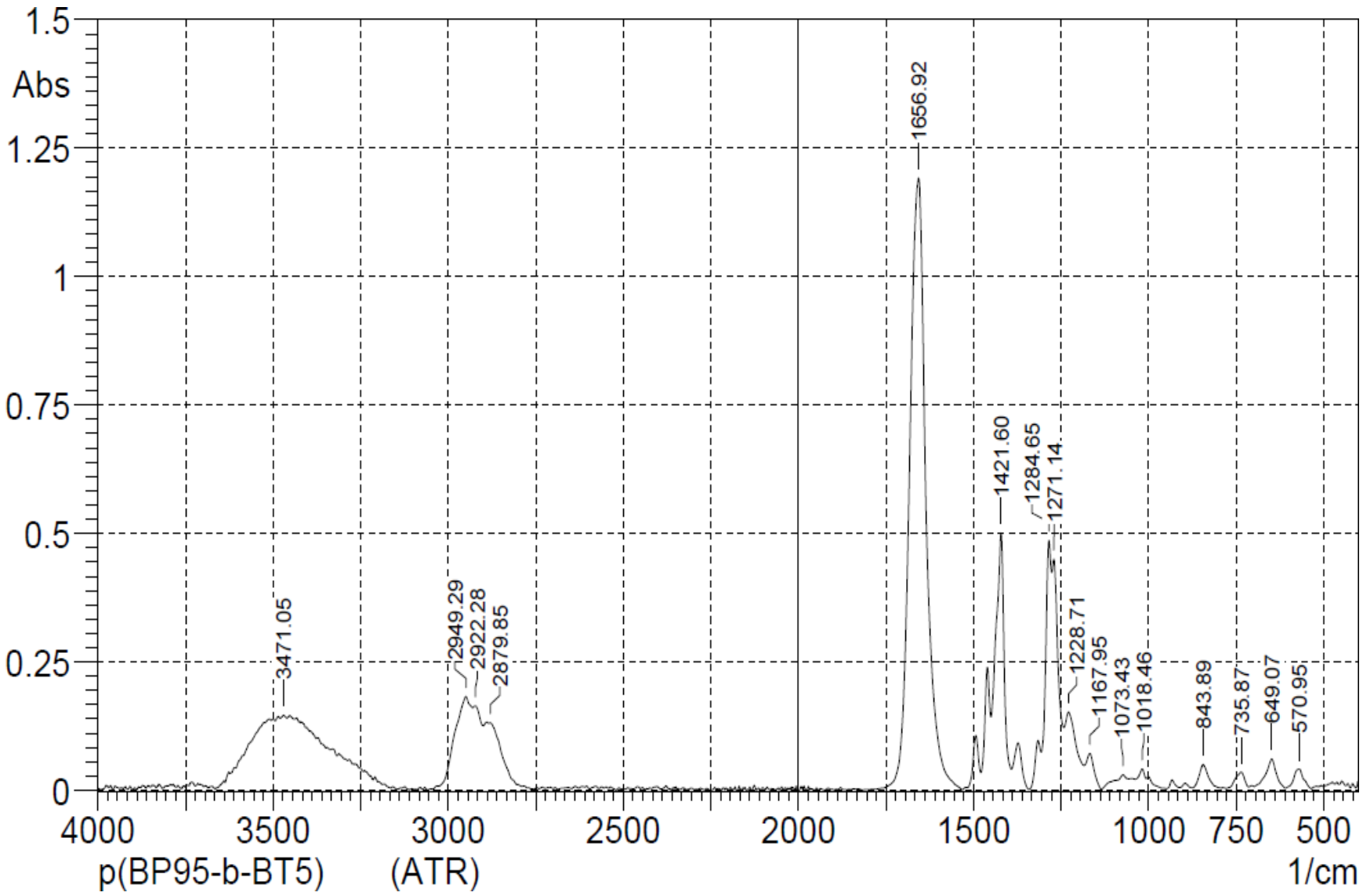

Figure S4. IR spectrum of copolymers synthesized from monomer mixture N-vinyl pyrrolidone/ 5-vinyl-1*H*-tetrazole =95/5 (mol.%).

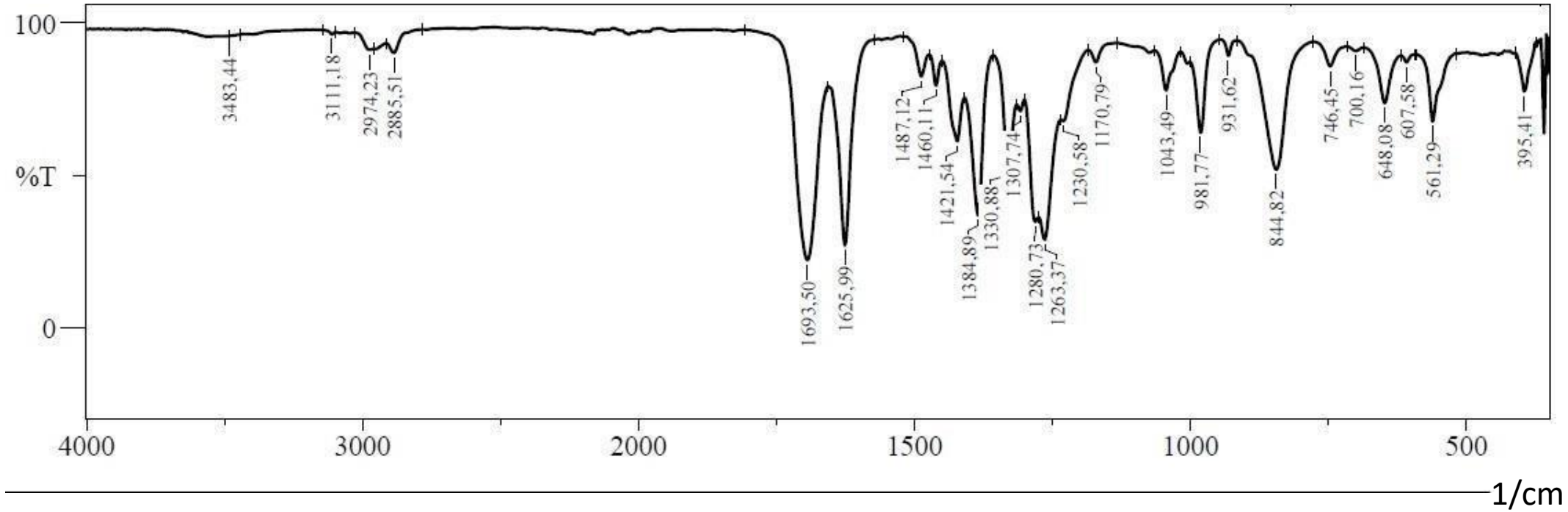

Figure S5. IR spectrum of N-vinyl pyrrolidone.

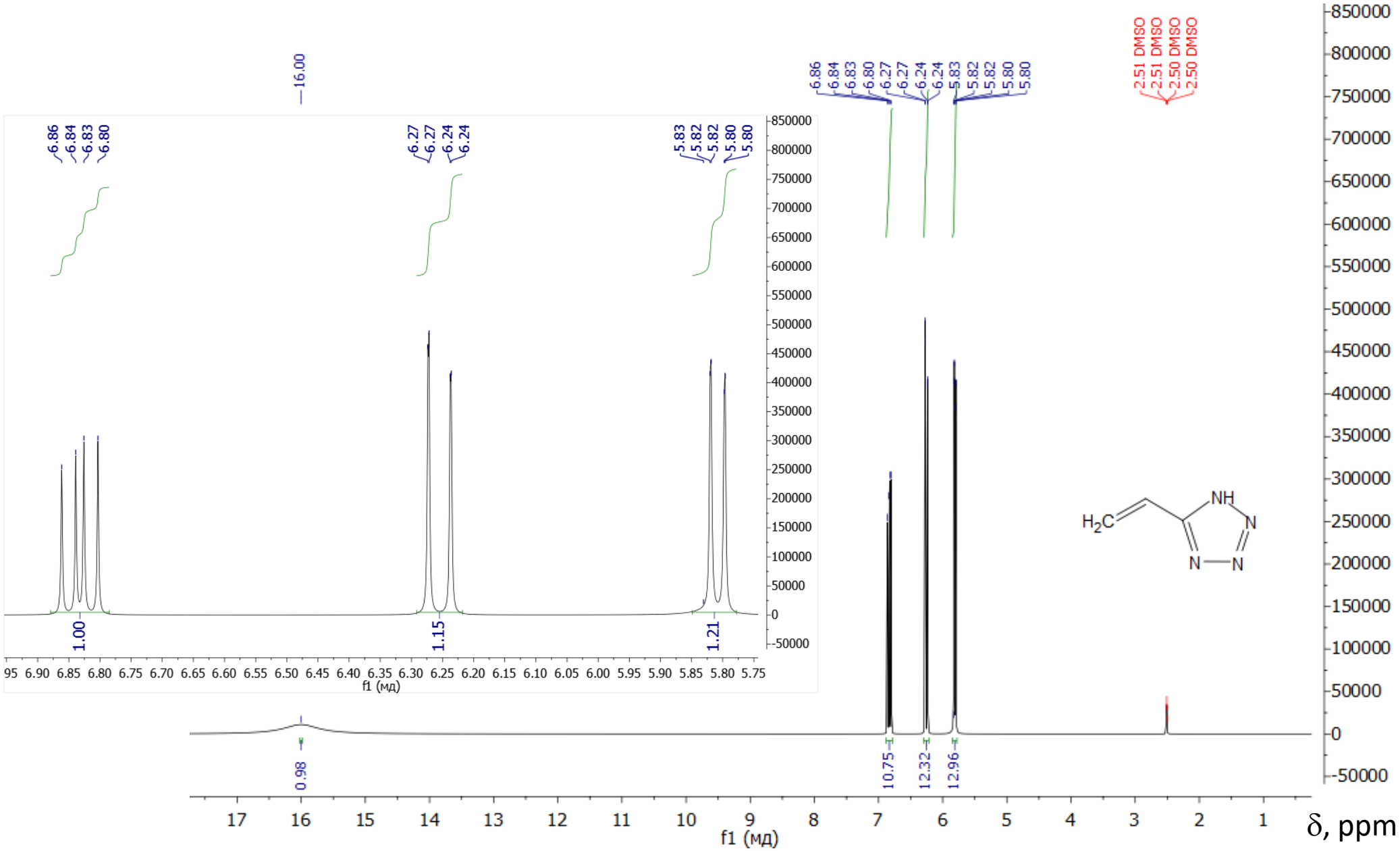

Figure S6. ^{1}H NMR spectrum 5-vinyl-1*H*-tetrazole in DMSO-d$_6$.

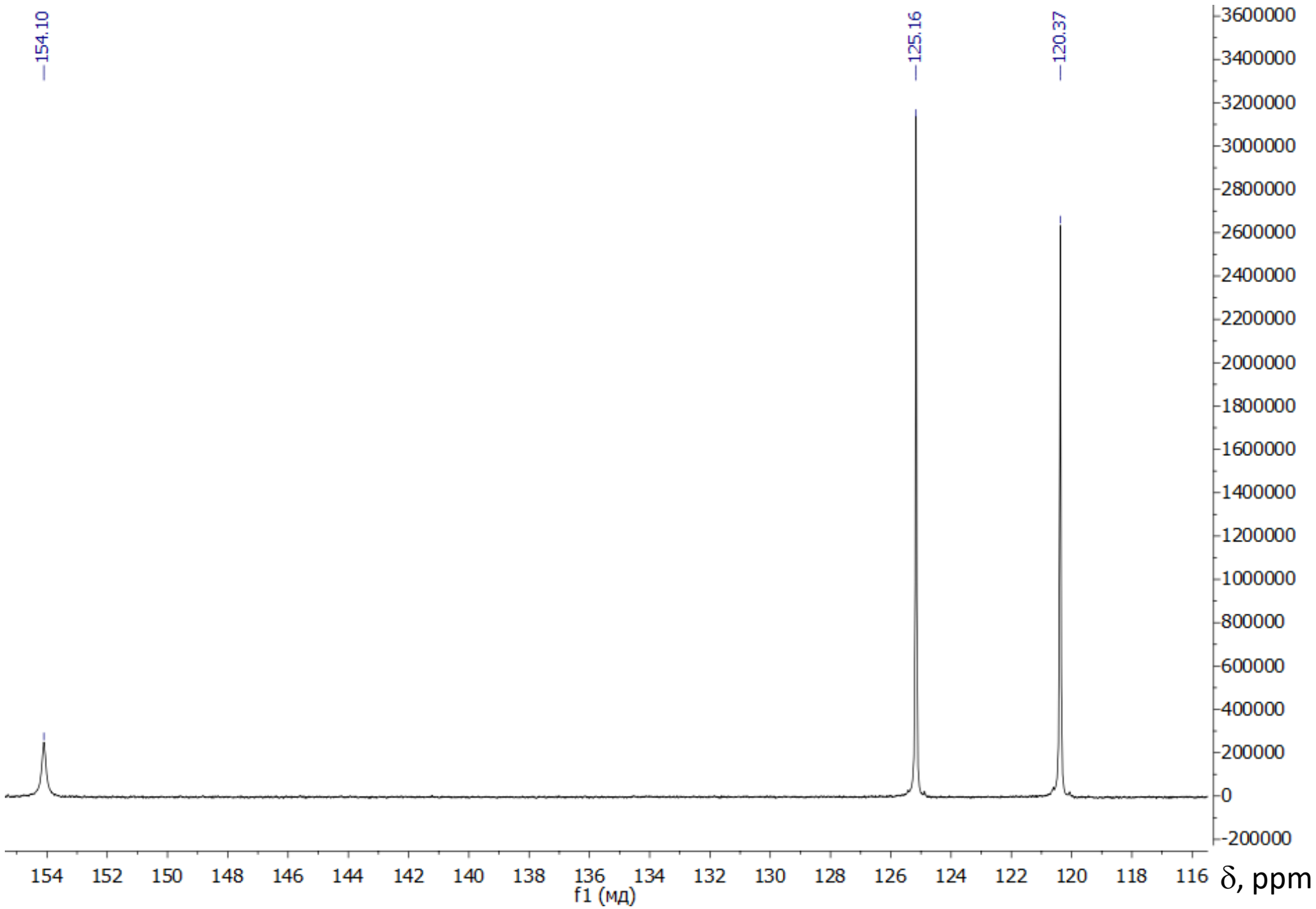

Figure S7. ^{13}C NMR spectrum 5-vinyl-1*H*-tetrazole in DMSO-d_6.

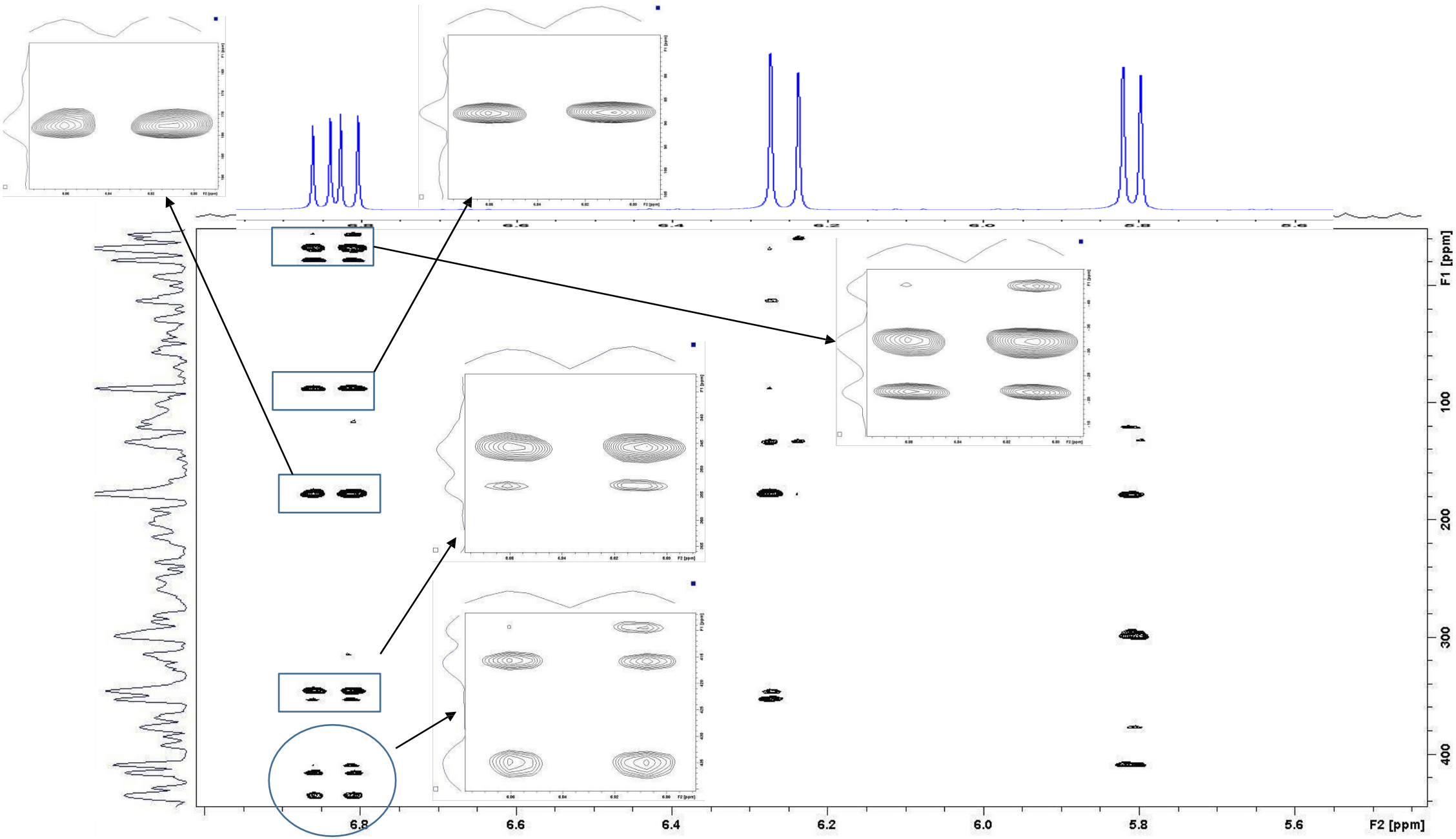

Figure S8. ^{1}H-^{15}N HMBC NMR spectrum of 5-vinyl-1*H*-tetrazole in DMSO-d_6.