

Figure S1. ^1H NMR spectra of polar comonomer **a**. (*:water)

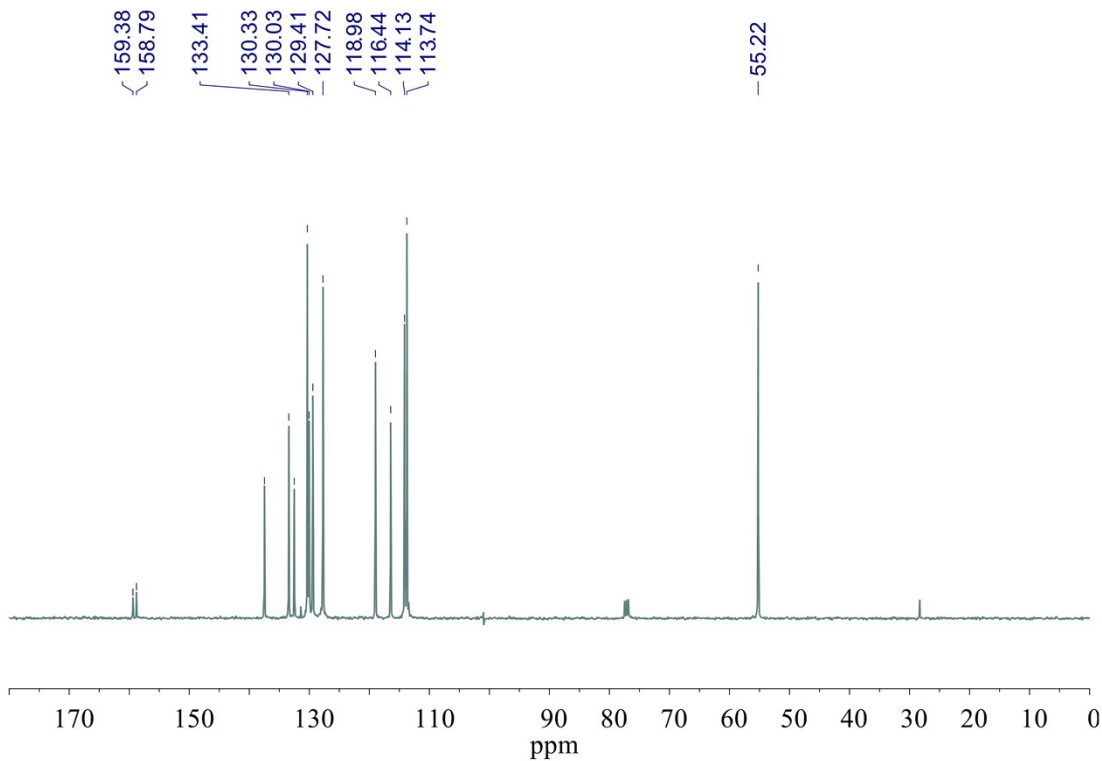


Figure S2. ^{13}C NMR spectra of polar comonomer **a**.

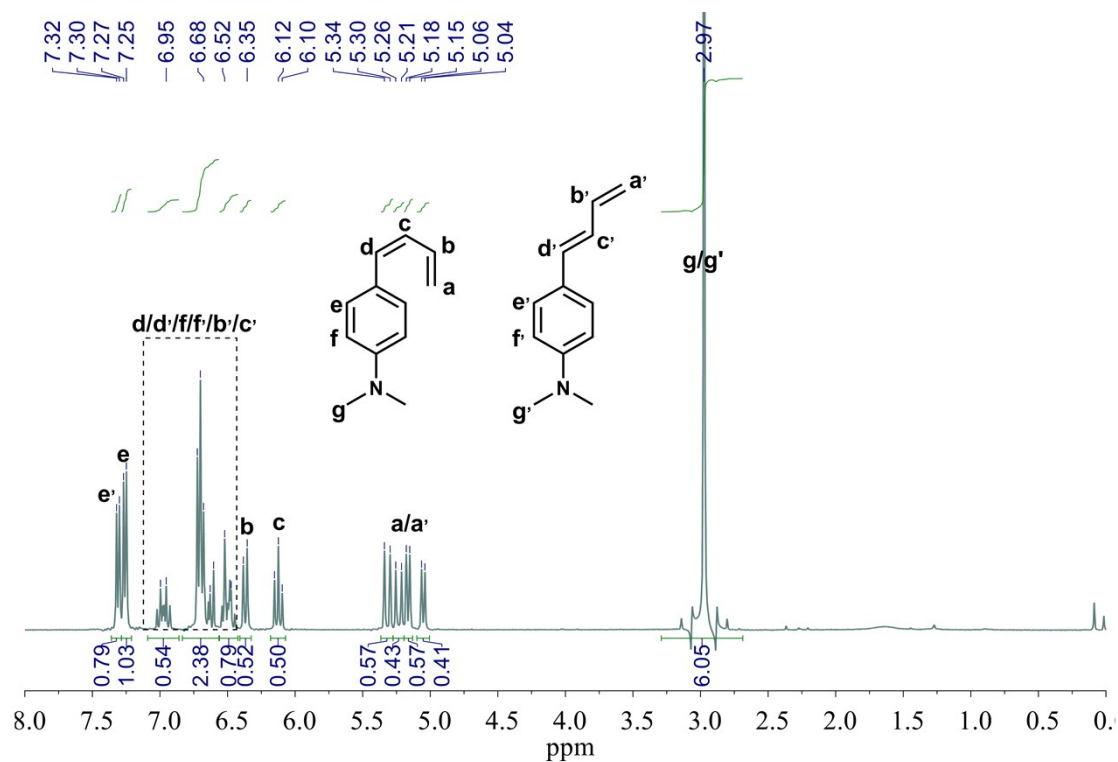


Figure S3. ¹H NMR spectra of polar comonomer **b**.

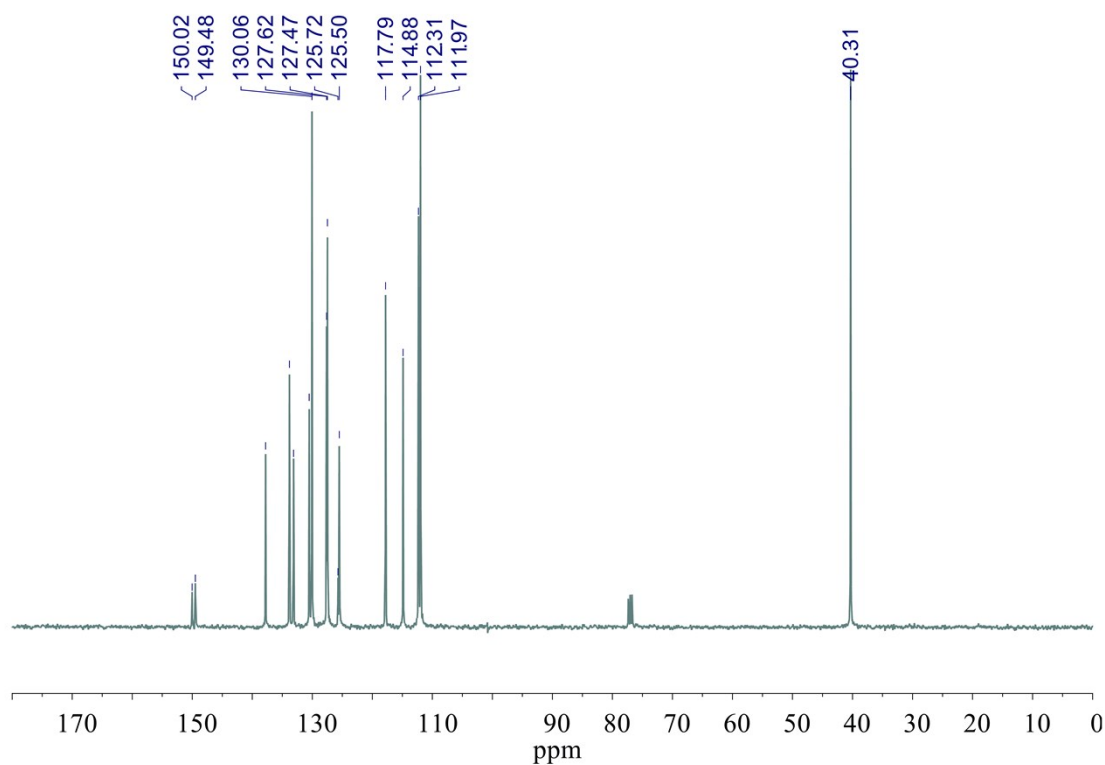


Figure S4. ¹³C NMR spectra of polar comonomer **b**.

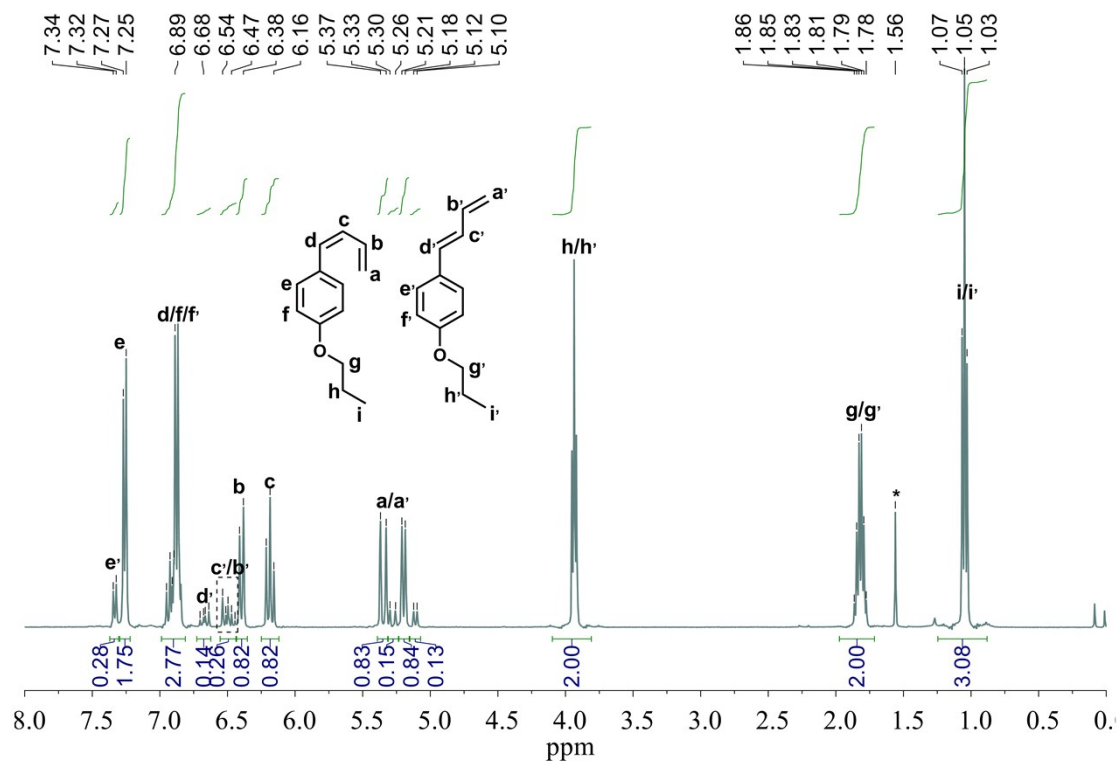


Figure S5. ^1H NMR spectra of polar comonomer c. (*:water)

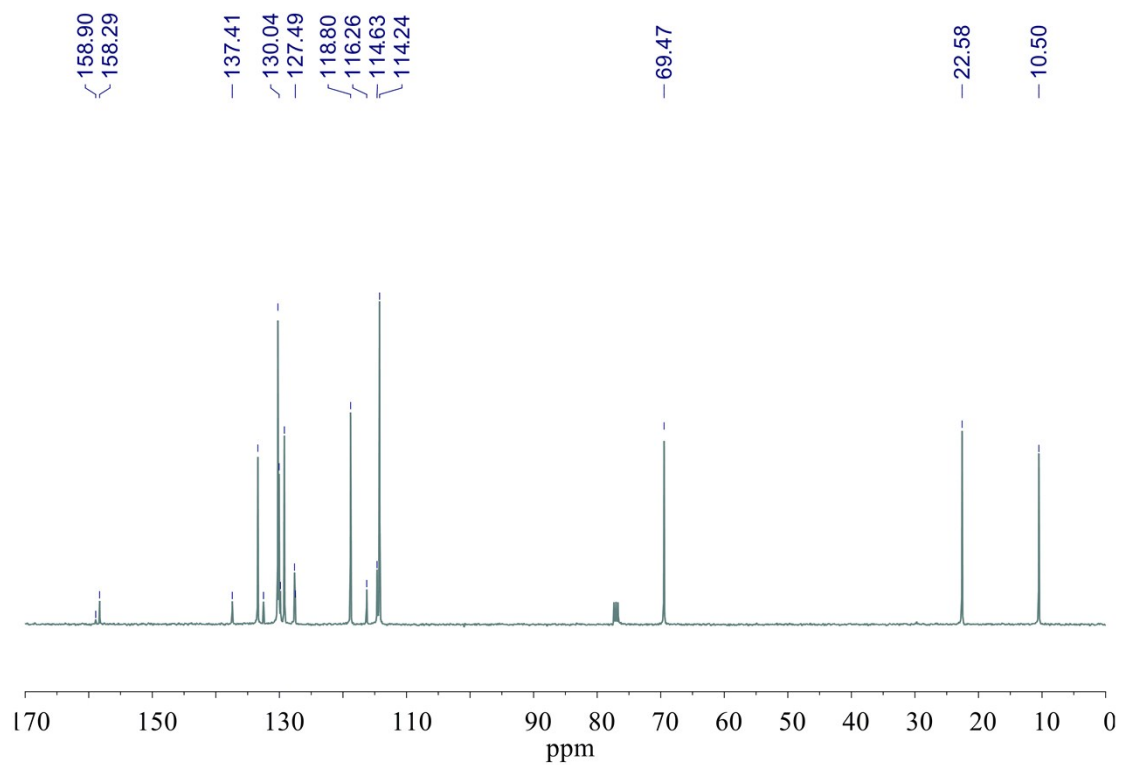


Figure S6. ^{13}C NMR spectra of polar comonomer c.

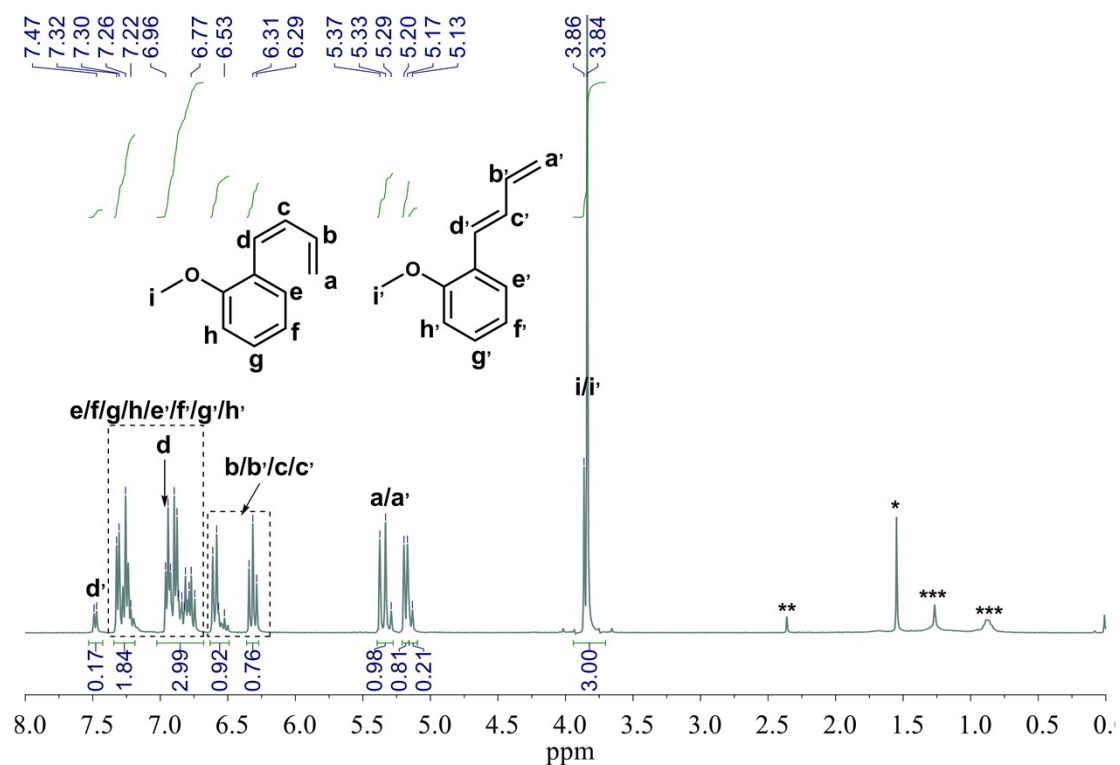


Figure S7. ^1H NMR spectra of polar comonomer **d**. (*:water; **:toluene; ***:n-hexane)

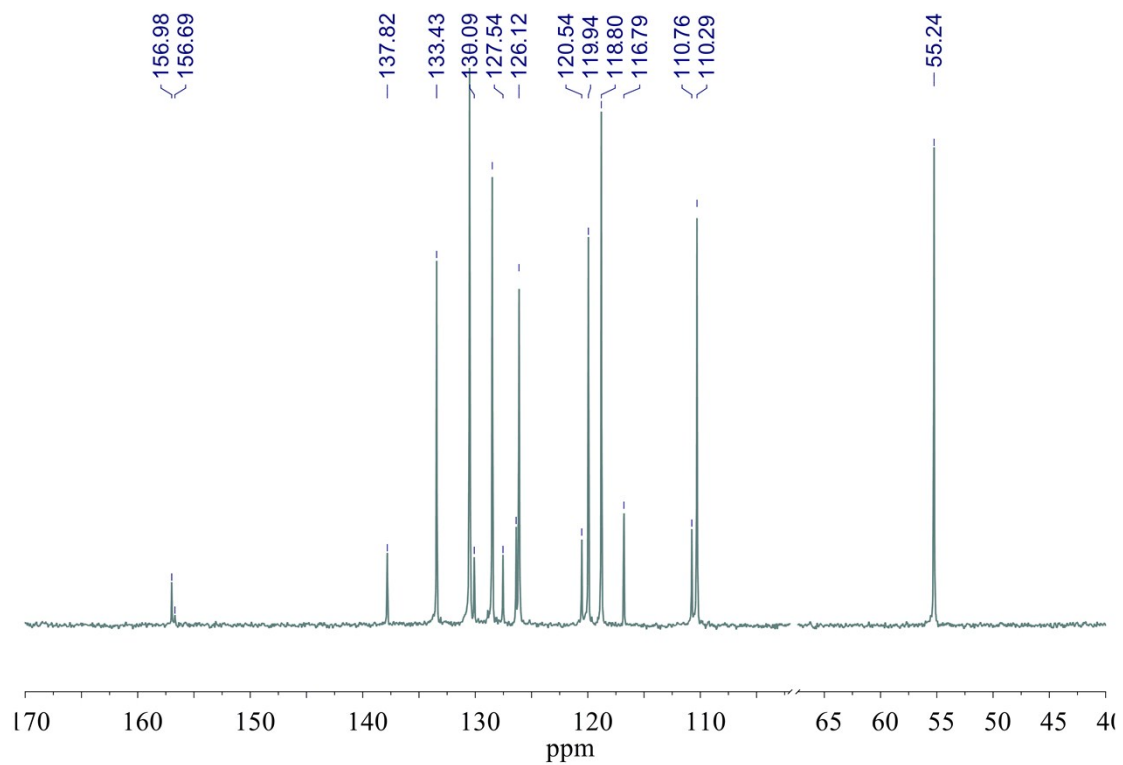


Figure S8. ^{13}C NMR spectra of polar comonomer **d**.

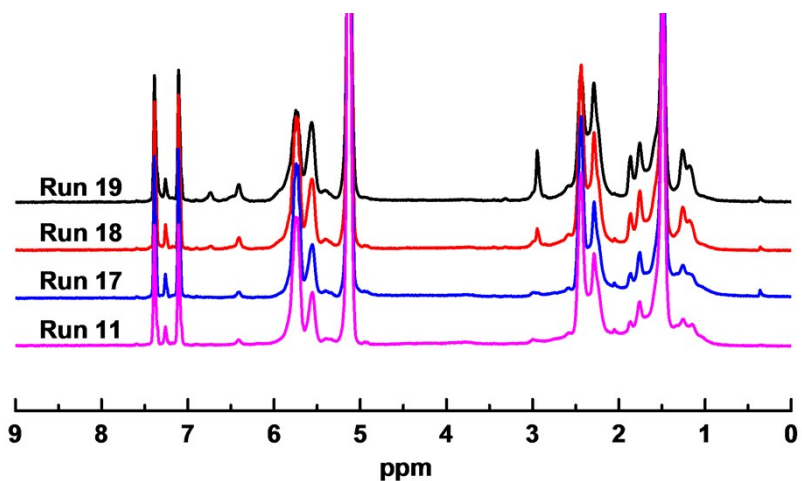


Figure S9. ^1H NMR spectra of the copolymers obtained from 1,3-butadiene and comonomer **b**.

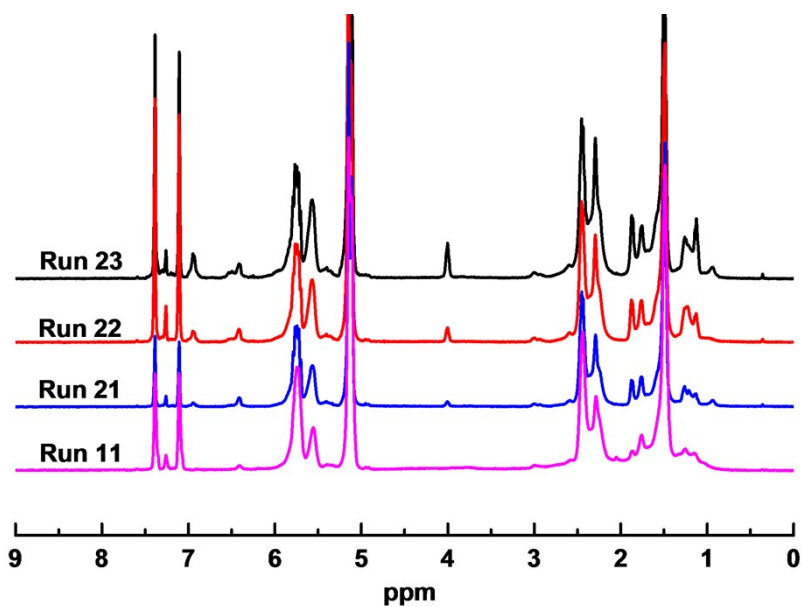


Figure S10. ^1H NMR spectra of the copolymers obtained from 1,3-butadiene and comonomer **c**.

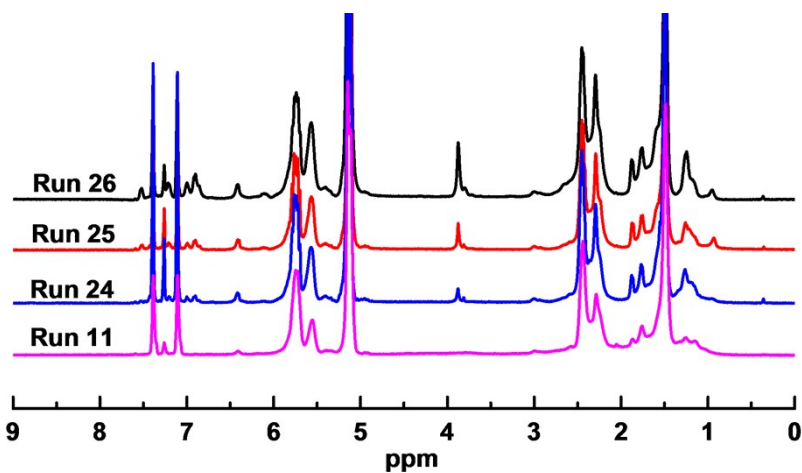


Figure S11. ^1H NMR spectra of the copolymers obtained from 1,3-butadiene and comonomer **d**.

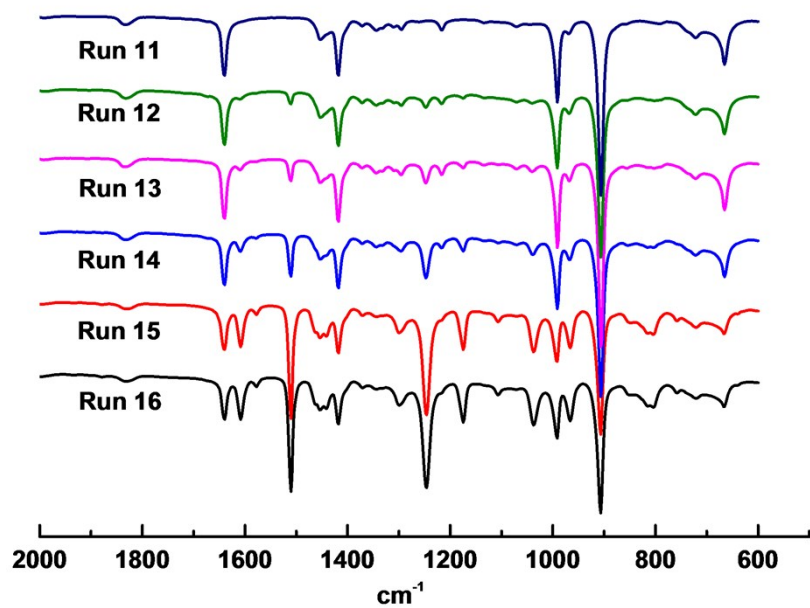


Figure S12. FTIR spectra of the copolymers obtained from 1,3-butadiene and comonomer **a**.

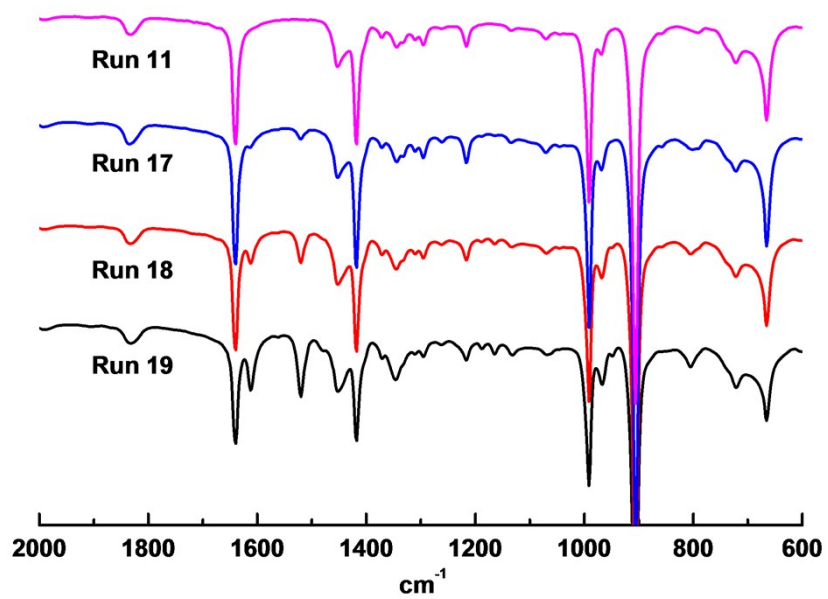


Figure S13. FTIR spectra of the copolymers obtained from 1,3-butadiene and comonomer **b**.

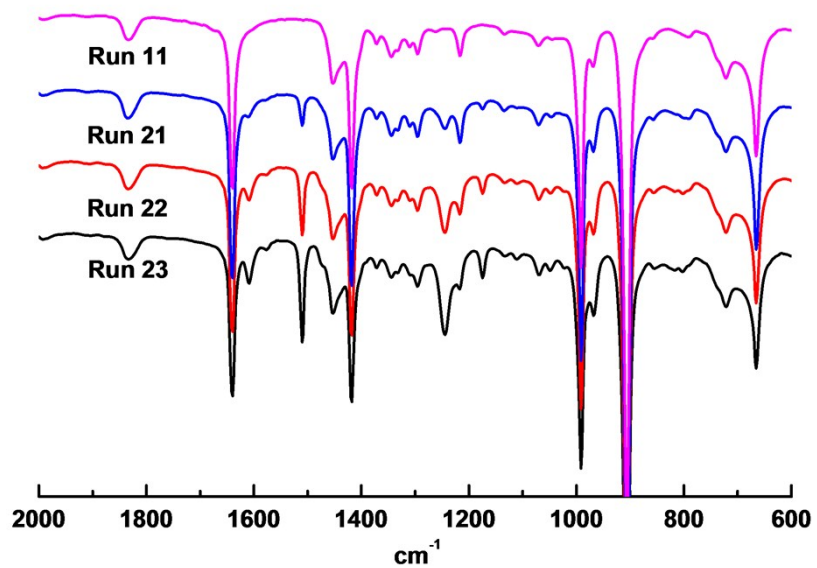


Figure S14. FTIR spectra of the copolymers obtained from 1,3-butadiene and comonomer **c**.

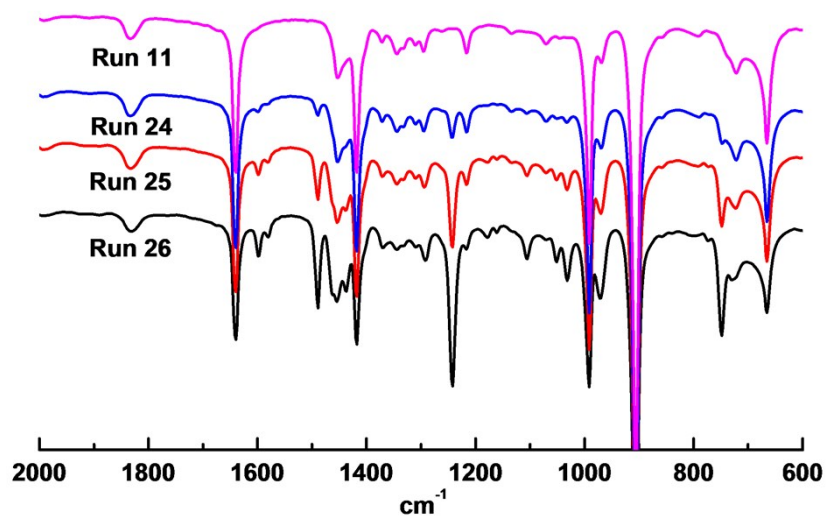


Figure S15. FTIR spectra of the copolymers obtained from 1,3-butadiene and comonomer **d**.