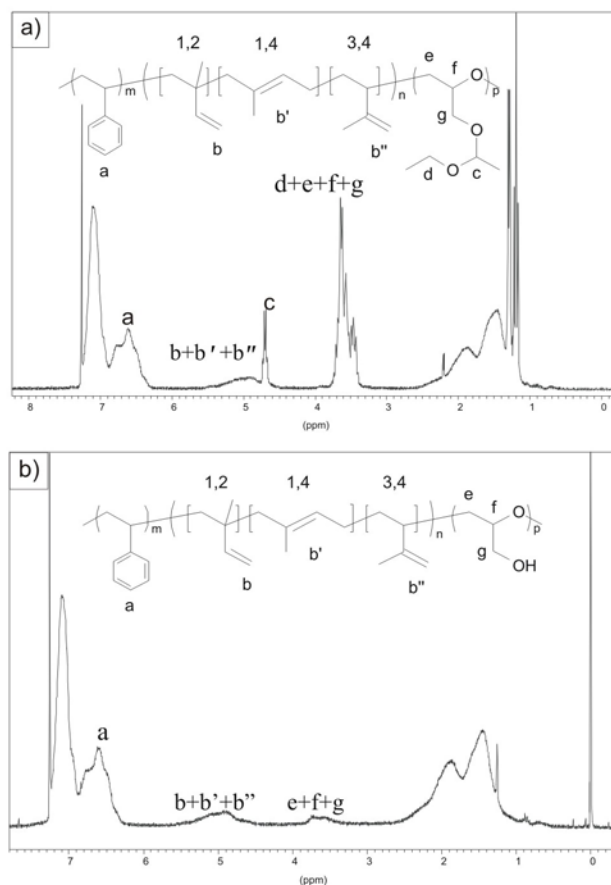
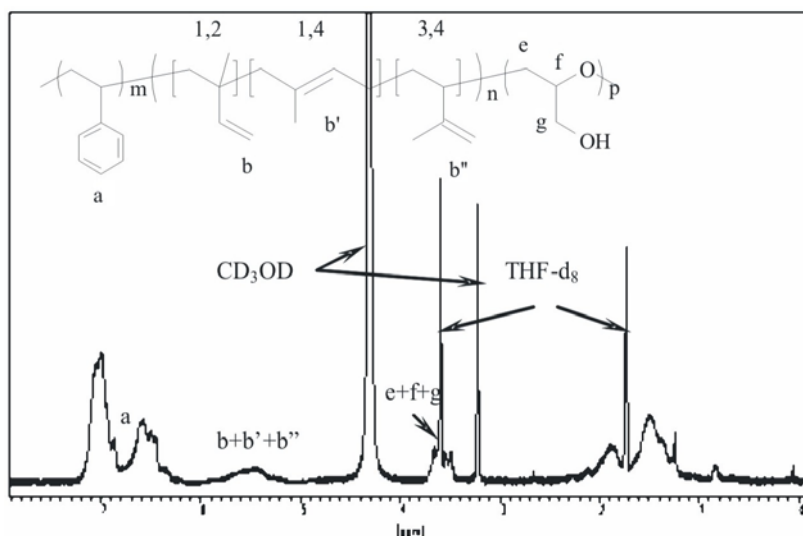


## Supplementary Information

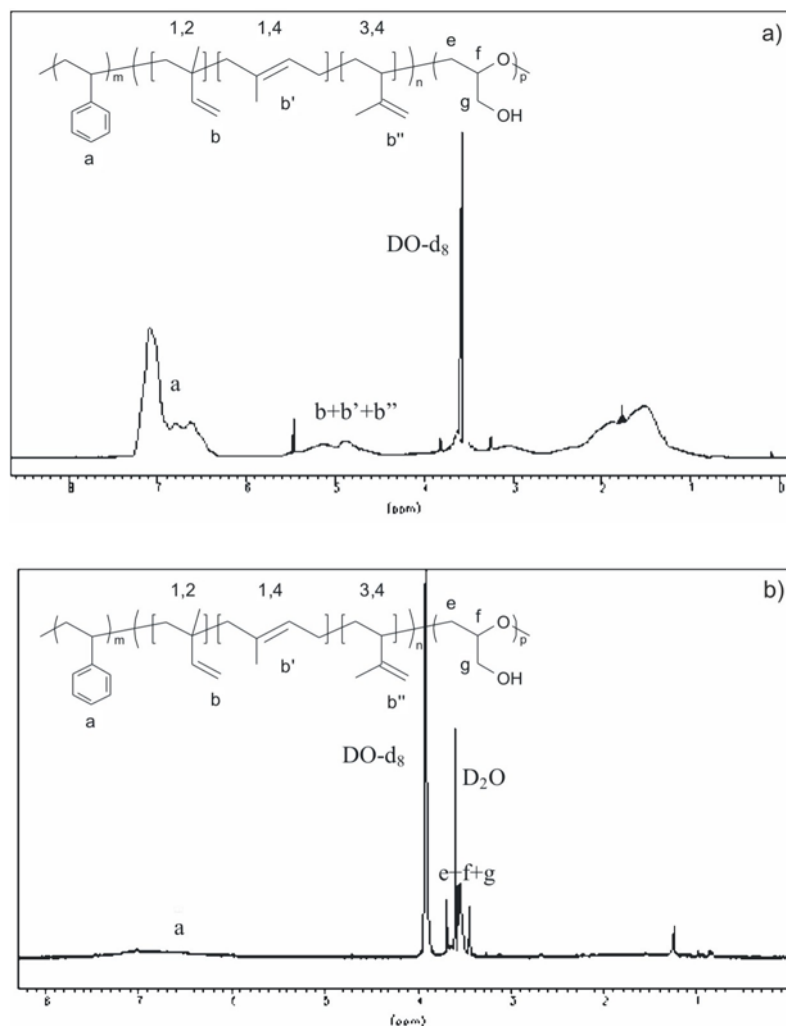
**Figure S1**  $^1\text{H}$  NMR spectra of SI1-b-PEEGE (a) and SI1-b-PG (b) taken in  $\text{CDCl}_3$



**Figure S2**  $^1\text{H}$  NMR spectra of SB2-PG 7.6 K taken in  $\text{THF-d}_8/\text{CD}_3\text{OD}$  (2/1 molar ratio)



**Figure S3**  $^1\text{H}$  NMR spectra of SB1-PG 7.8K taken in  $\text{DO-d}_8$  (a) and in  $\text{DO-d}_8/\text{D}_2\text{O}$  (10%) mixture (b)



**Figure S4** FTIR spectra of SI1-PG 3.7K before (a) and after (b) UV irradiation

