

Supporting Information

Dual thermo- and light-responsive Coumarin-based copolymers with programmable cloud points

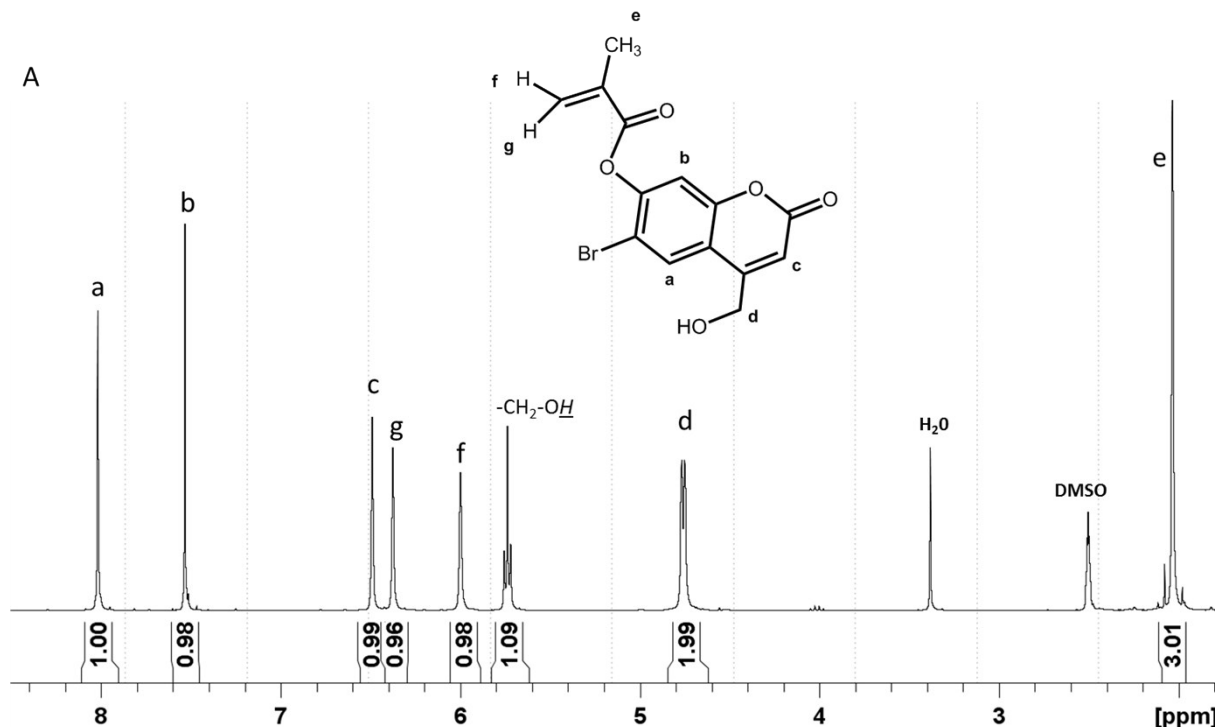
Couturaud Benoit¹, Stefanello Talitha², Fournier David¹, Sliwa Michel³, Szarpack-Jankowska Anna², Auzély-Velty Rachel*², Woisel Patrice*¹

¹ Univ. Lille, CNRS, ENSCL, UMR 8207 - UMET - Unité Matériaux Et Transformations, Ingénierie des Systèmes Polymères (ISP) team, F-59000 Lille, France

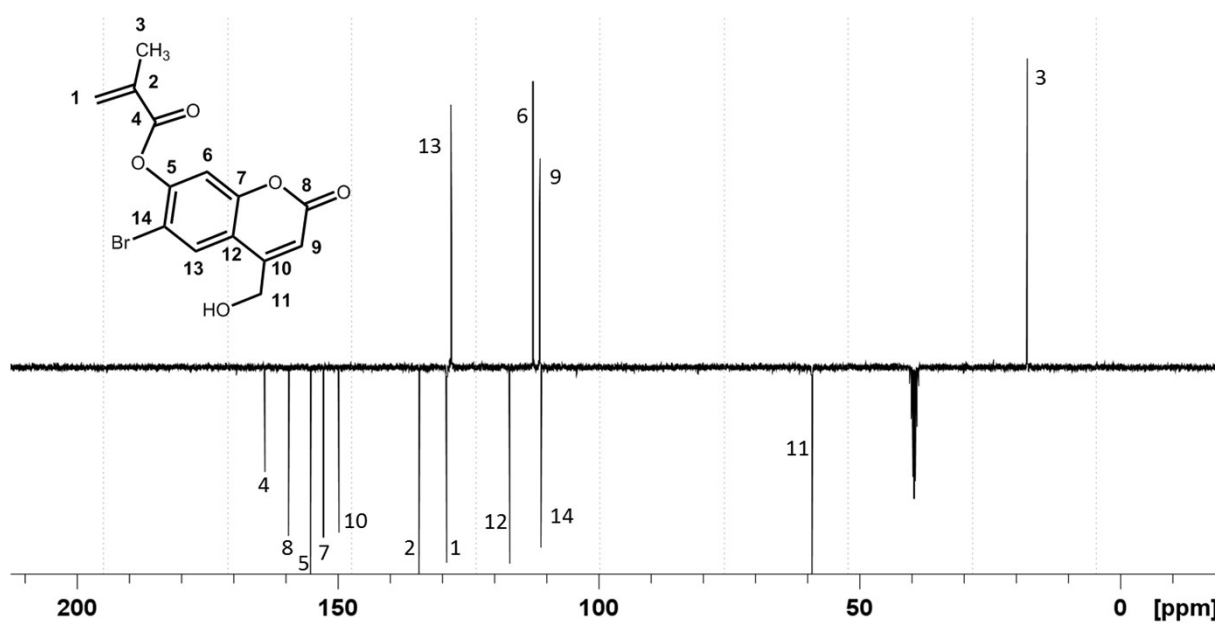
² Grenoble Alpes University, Centre de Recherches sur les Macromolécules Végétales (CERMAV-CNRS), BP 53, 38041 Grenoble Cedex 9, France

³ Univ. Lille, CNRS, UMR 8516 - LASIR - Laboratoire de Spectrochimie Infrarouge et Raman, F-59000 Lille, France

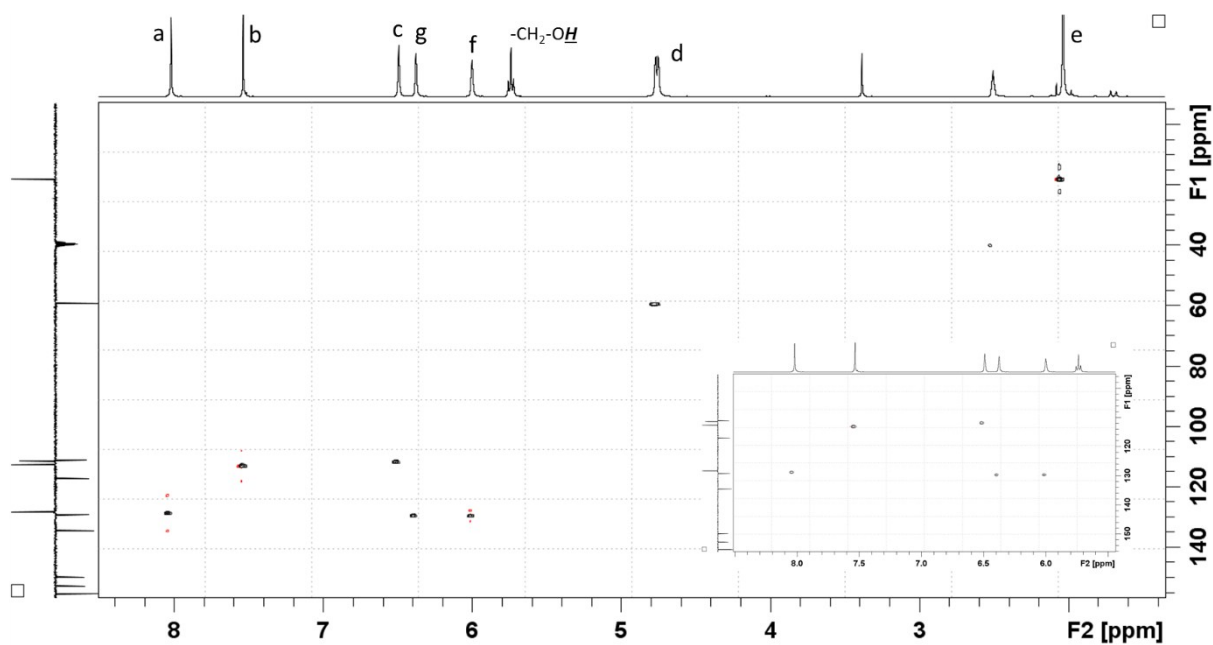
*E-mail: patrice.woisel@ensc-lille.fr, rachel.auzely@cermav.cnrs.fr



B



C



D

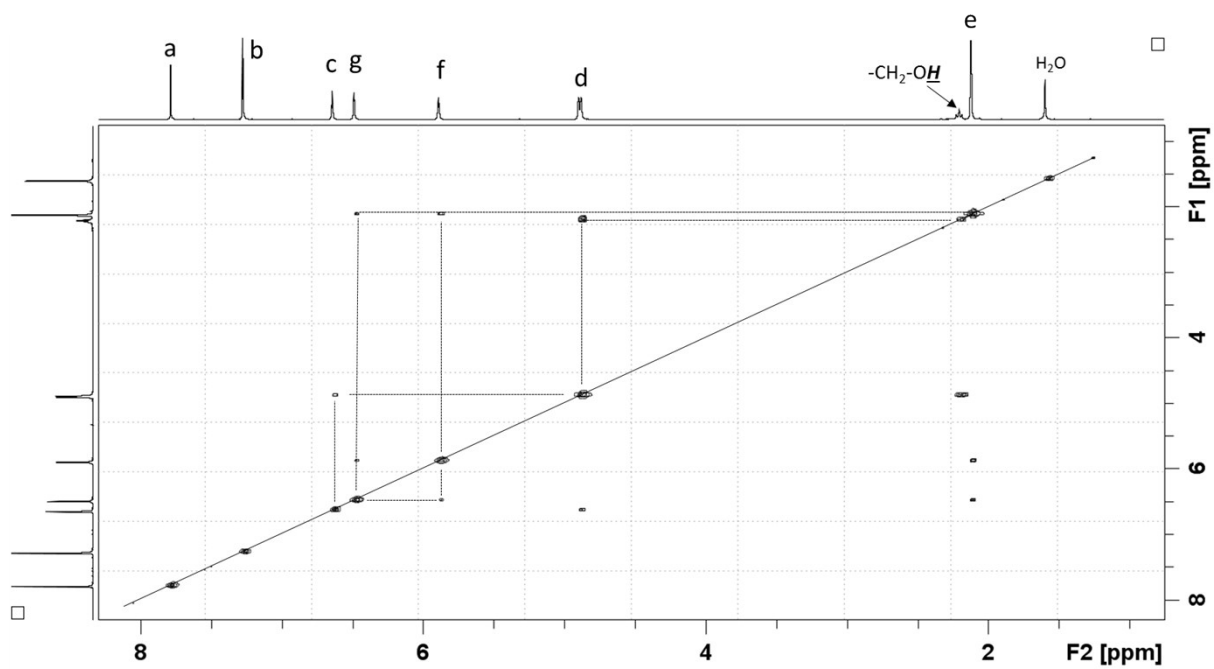
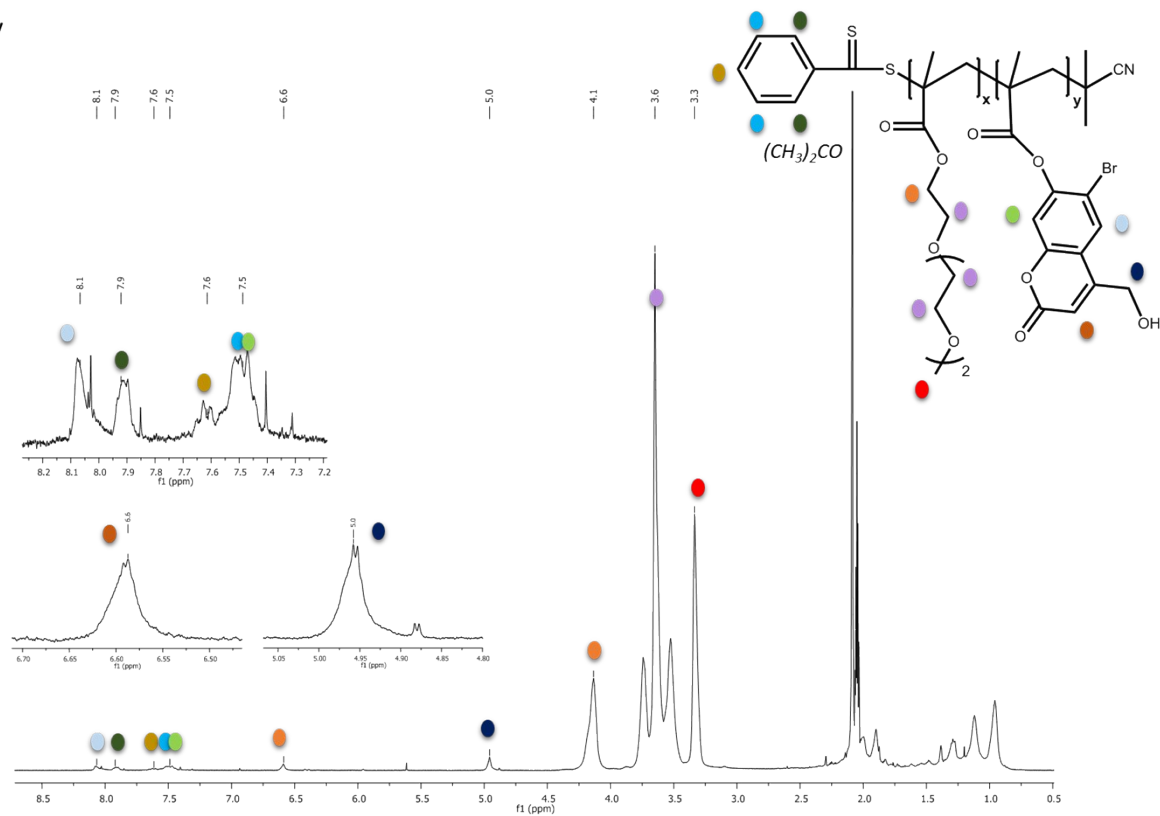


Figure S1. NMR spectra of 6-bromo-4-hydroxymethyl-7-coumarinyl methacrylate (CMA). A: ^1H NMR (DMSO- d_6), B: ^{13}C NMR (JMOD, DMSO- d_6), C: HSQC (DMSO- d_6) and D: COSY (CDCl₃).

A/



B/

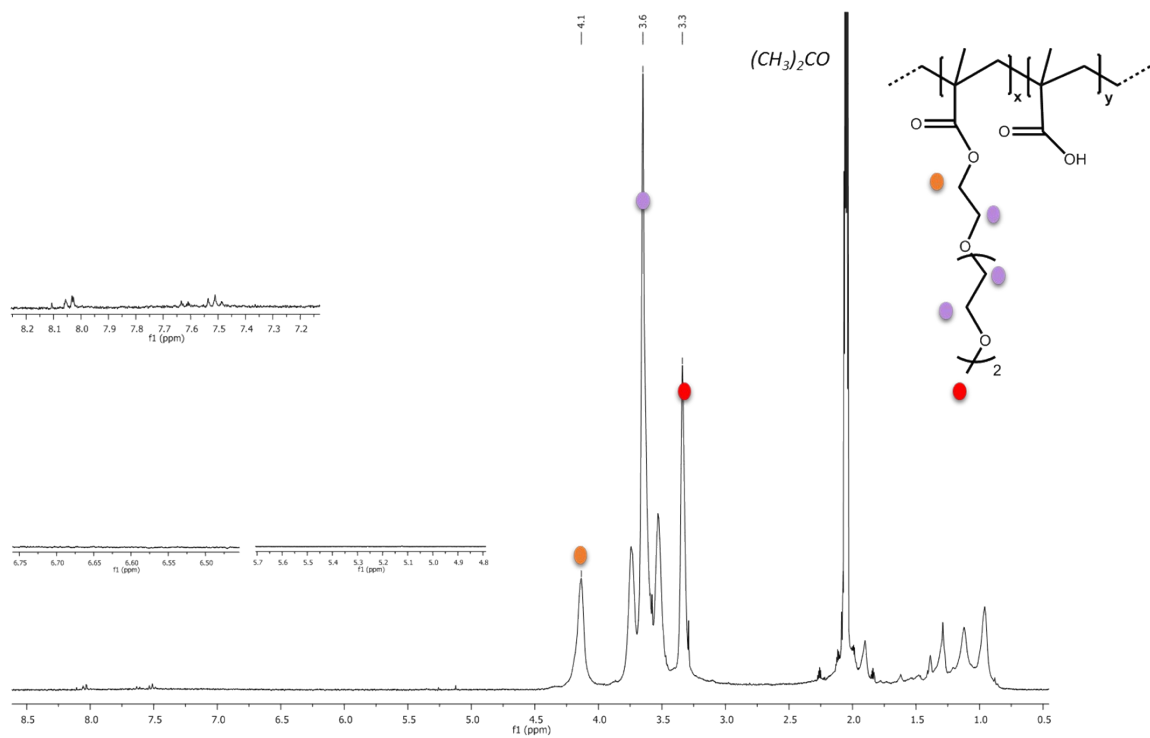


Figure S2. ^1H NMR spectra (acetone- d_6) of P(TEGMA-co-CMA) 6.1 mol% A/ before and B/ after UV irradiation

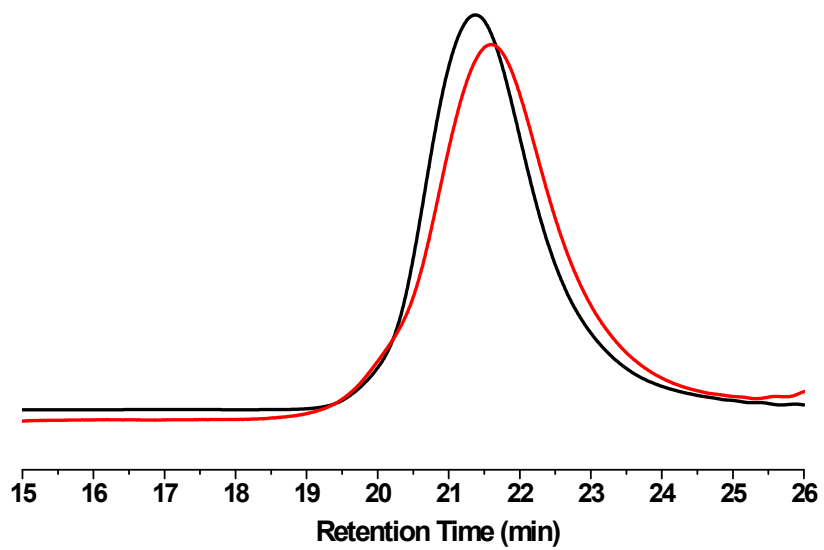


Figure S3. SEC traces of P(TEGMA-co-CMA) 1.2 mol% before (black curve) and after (red curve) 30 min of UV irradiation, demonstrating that no polymer coupling reaction occurred.