**Cationic Azobenzenes as Light-Responsive Crosslinkers for Alginate-Based Supramolecular Hydrogels**

**Miriam Di Martino 1, Lucia Sessa 1,\*, Barbara Panunzi 2, Rosita Diana 2, Stefano Piotto 1,3 and Simona Concilio 1,3,\***

1 Department of Pharmacy, University of Salerno, Via Giovanni Paolo II, 132, 84084 Fisciano, Italy; midimartino@unisa.it (M.D.M.); lucsessa@unisa.it (L.S.); piotto@unisa.it (S.P.); sconcilio@unisa.it (S.C.)

2 Department of Agriculture, University of Napoli Federico II, Via Università 100, 80055 Portici, Italy; barbara.panunzi@unina.it (B.P.); rosita.diana@unina.it (R.D.)

3 BIONAM Research Center for Biomaterials, University of Salerno, 84084 Fisciano, Italy

**\*** Correspondence: L.S. lucsessa@unisa.it and S.C. sconcilio@unisa.it

Supplementary Materials



**Figure S1.** Synthetic scheme of AZO A and AZO B.
i) NaNO2, H2O/HCl, 0-5°C, 30 min; ii) NaOH pH=11, 10-15°C, 3h; iii) 1,6- dibromohexane, K2CO3, CH3CN dry, reflux, 48h; iv) N(CH3)3 in ethanol solution, 50°C, 48h for AZO A and Py in acetonitrile, 70°C, 48h for AZO B.



**Figure S2.** Synthetic scheme of AZO C.
i) NaNO2, H2O/HCl, 0-5°C, 30 min; ii) NaOH pH=11, 10-15°C, 3h; iii) 1,4-dibromobutane, K2CO3, KI, acetone, reflux, 4h; iv) N(CH3)3 in ethanol solution, 50°C, 48h; v) HCl conc, 40°C, overnight.