

Supporting Information

INCORPORATION OF COUMARIN-BASED FLUORESCENT MONOMERS INTO CO-OLIGOMERIC MOLECULES

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^1H , ^{13}C NMR spectra, FTIR and Mass spectrum of 7-Hydroxy-3-vinylcoumarin (3)

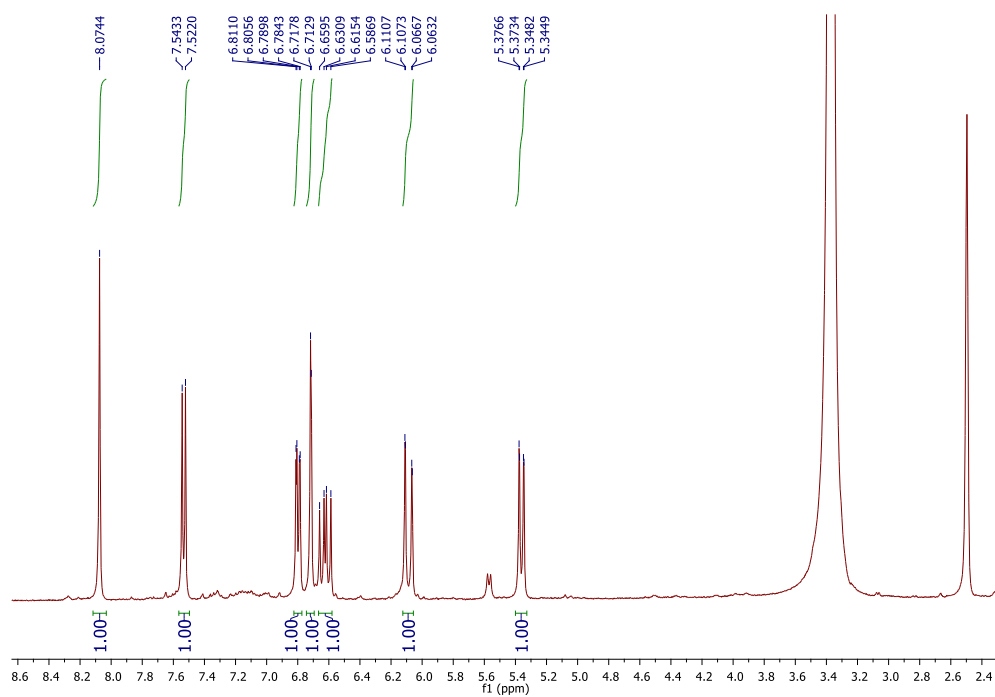


Figure S1 - ^1H (400 MHz, DMSO) of 7-hydroxy-3-vinylcoumarin (3).

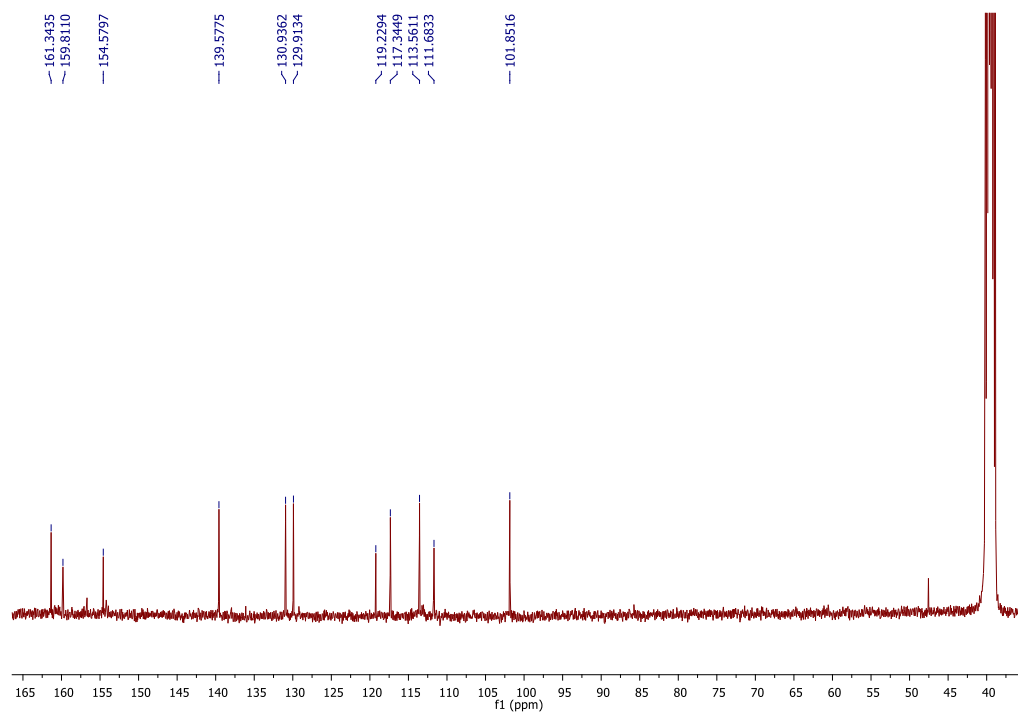


Figure S2 - ^{13}C (100 MHz, DMSO) of 7-hydroxy-3-vinylcoumarin (3).

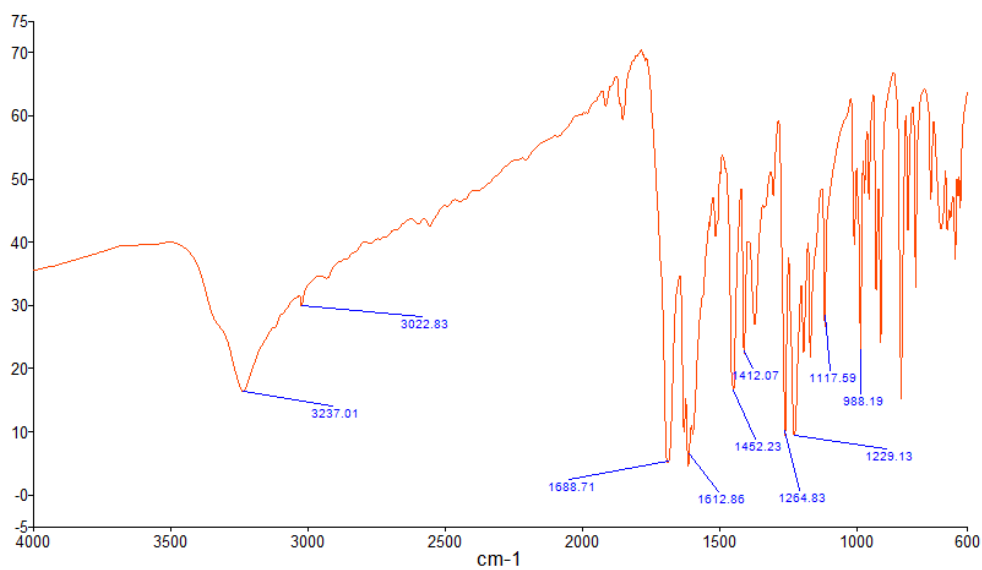


Figure S3 - FTIR (KBr) of compound 7-hydroxy-3-vinylcoumarin (**3**).

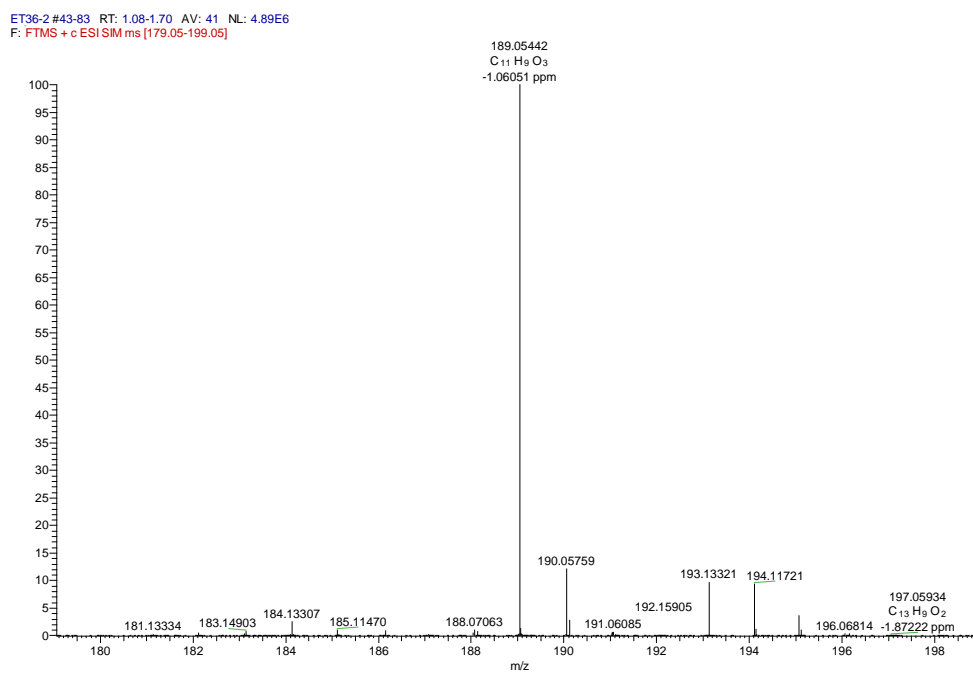


Figure S4 - HRMS-ESI (+) of 7-hydroxy-3-vinylcoumarin (**3**).

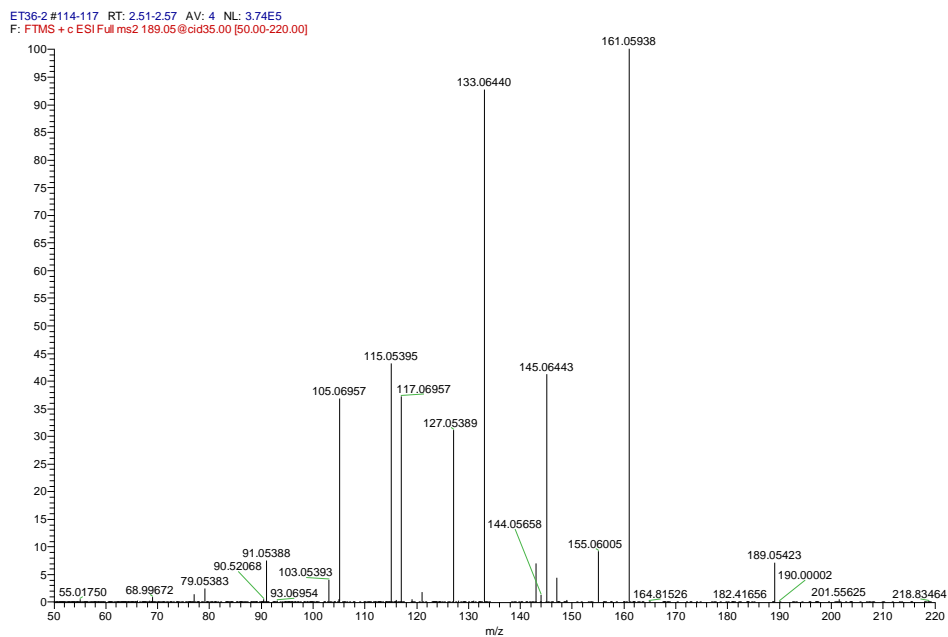


Figure S5 - ESI-MS/MS (189) spectrum of 7-hydroxy-3-vinylcoumarin (**3**).

^1H , ^{13}C NMR spectra, FTIR and Mass spectrum of the co-oligomers

Co-oligomer of styrene with 3-vinylcoumarin (**1b**)

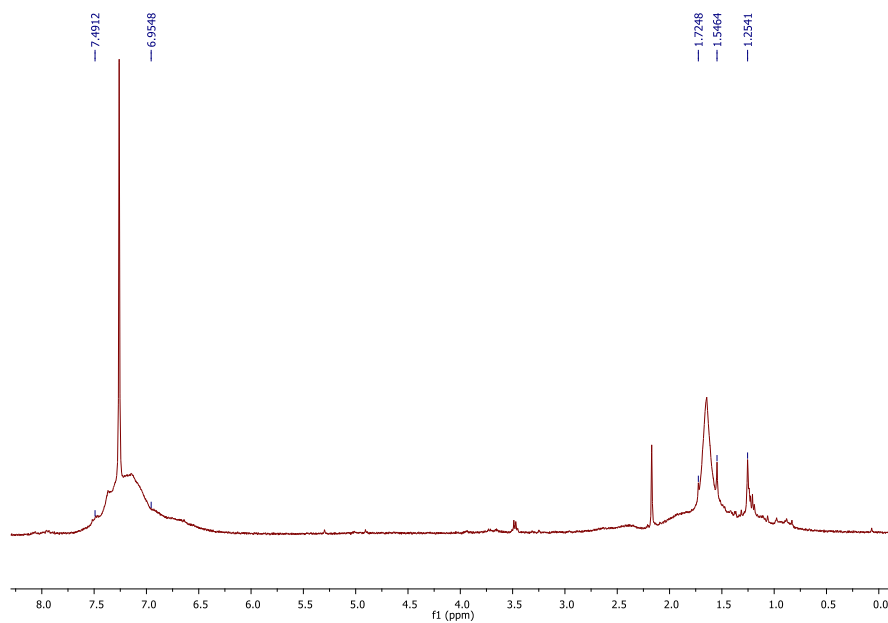


Figure S6 - ^1H (400 MHz, CDCl_3) of co-oligomer **1b**.

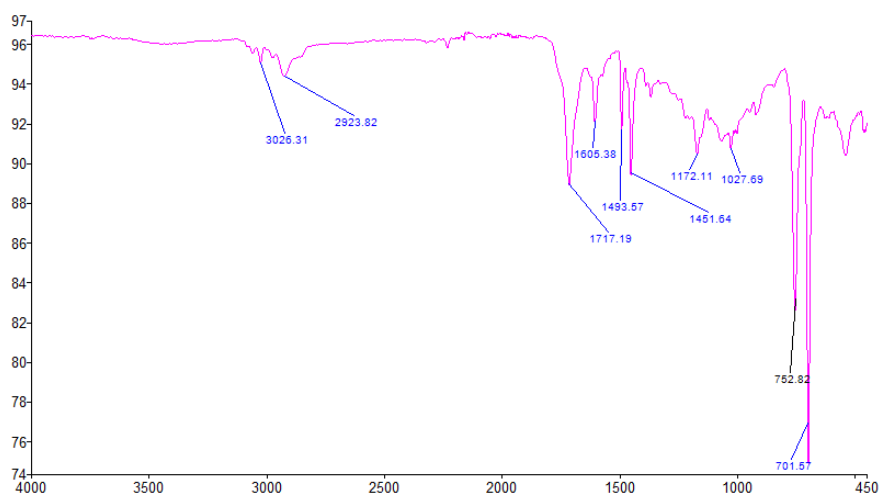


Figure S7 - FTIR (KBr) of co-oligomer **1b**.

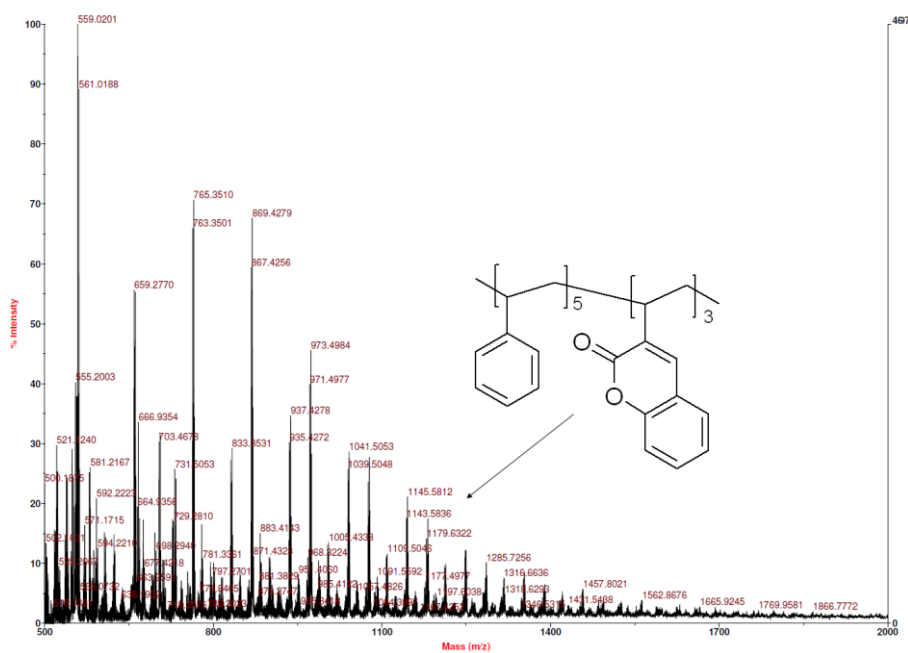


Figure S8 - MALDI-TOF Mass spectrum (matrix - dithranol + Ag) of co-oligomer **1b**. Assigned in the spectrum is the ion with m/z 1143 which can be attributed to five molecules of styrene, three of coumarin **1**, a terminal isobutyronitrile and a potassium ion.

Co-oligomer of styrene with 7-methoxy-3-vinylcoumarin (2b)

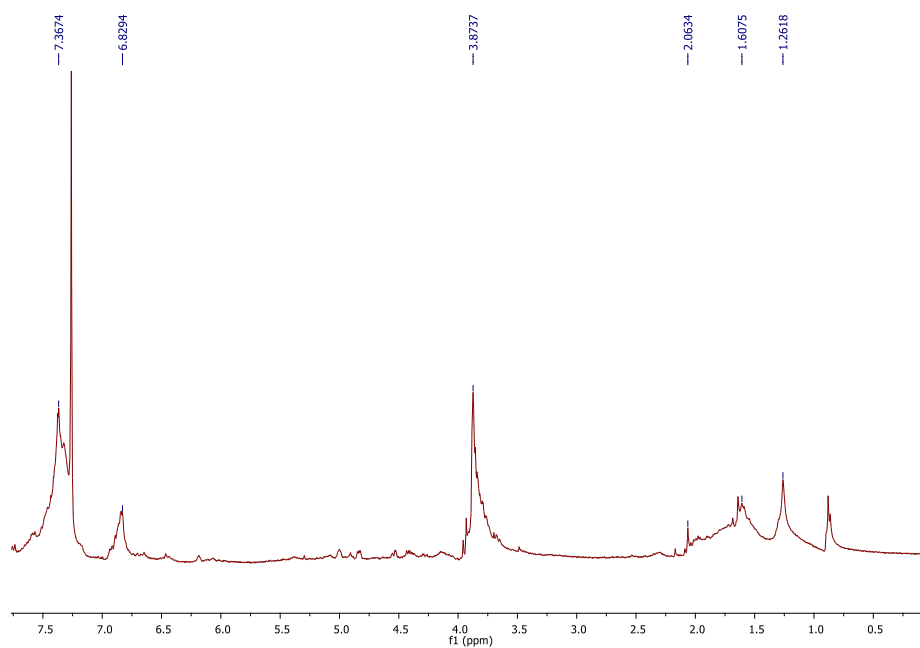


Figure S9 - ¹H (400 MHz, CDCl₃) of co-oligomer 2b.

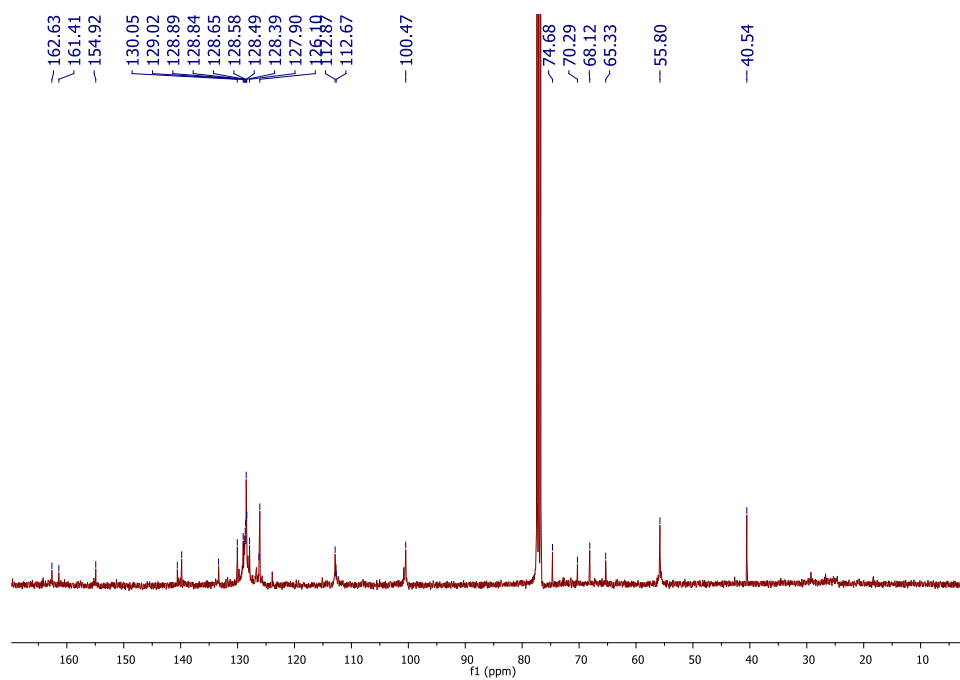


Figure S10 - ¹³C (100 MHz, CDCl₃) of co-oligomer 2b.

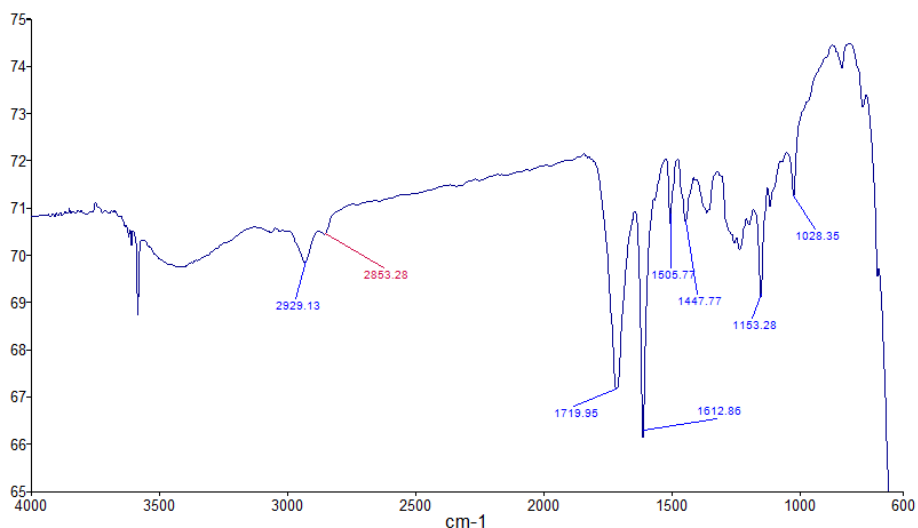


Figure S11 - FTIR (KBr) of co-oligomer **2b**.

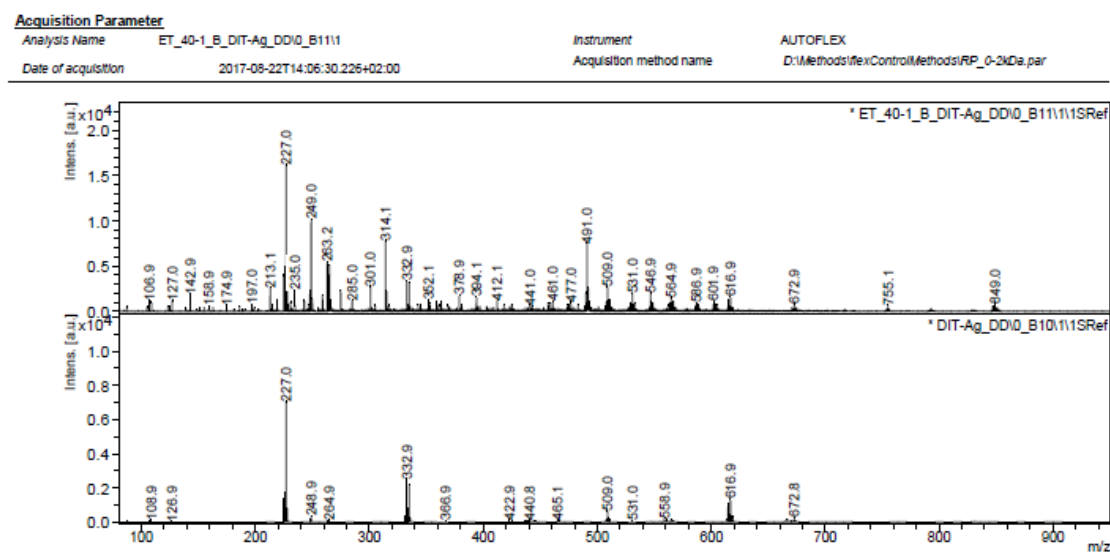


Figure S12 - MALDI-TOF Mass spectrum (matrix: Dithranol + Ag) of co-oligomer **2b**. Possible constitution of ion m/z 849 can be attributed to five molecules of styrene, one of coumarin **2**, a terminal isobutyronitrile and sodium chloride.

Co-oligomer of methyl acrylate with 7-methoxy-3-vinylcoumarin (2a)

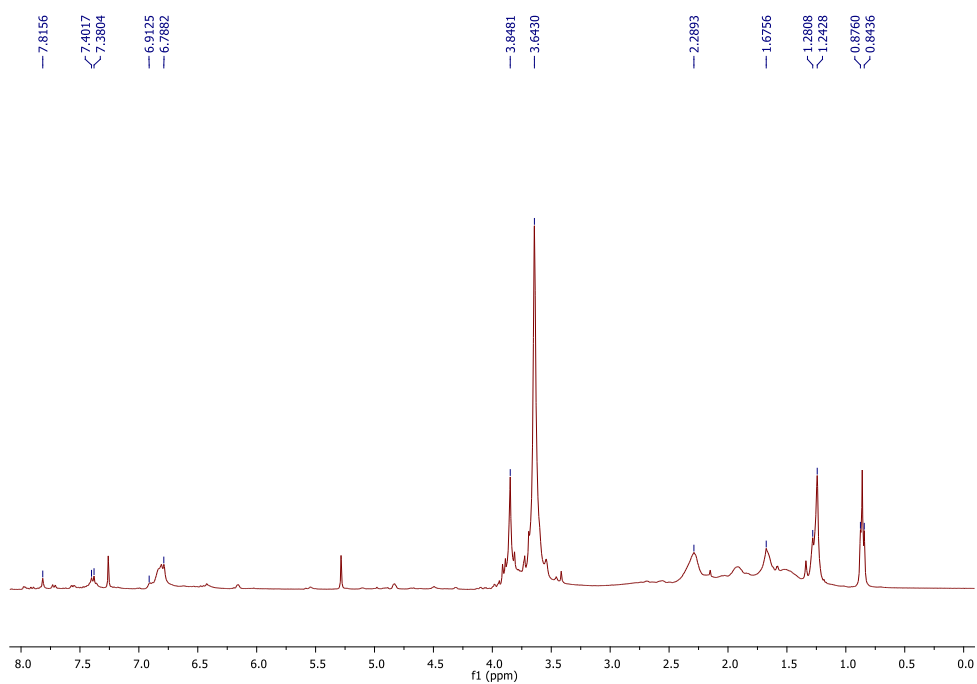


Figure S13 - ^1H (400 MHz, CDCl_3) of co-oligomer 2a.

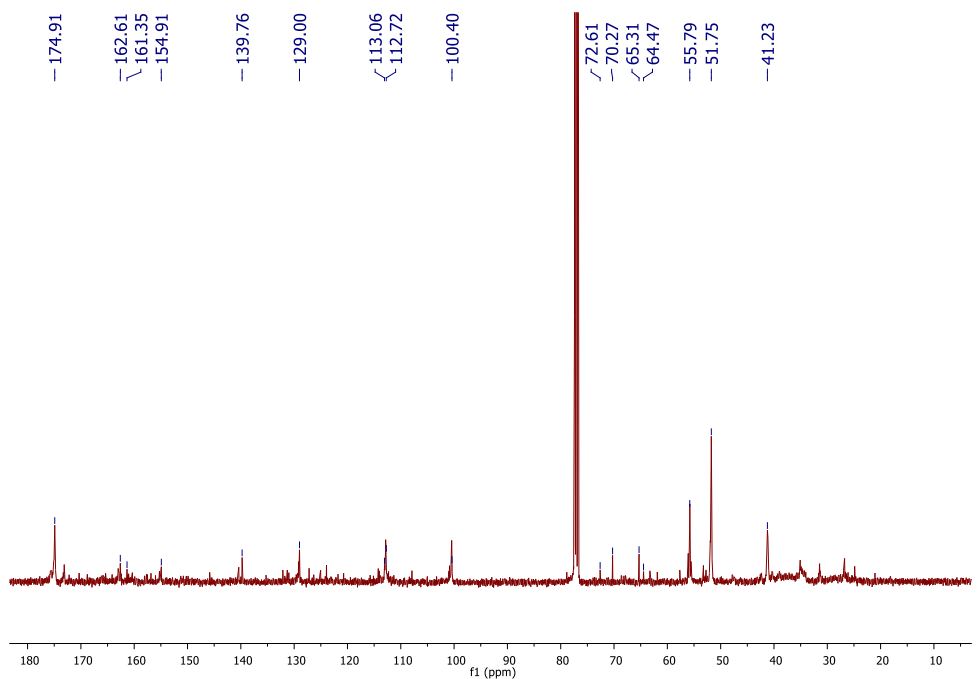


Figure S14 - ^{13}C (100 MHz, CDCl_3) of co-oligomer 2a.

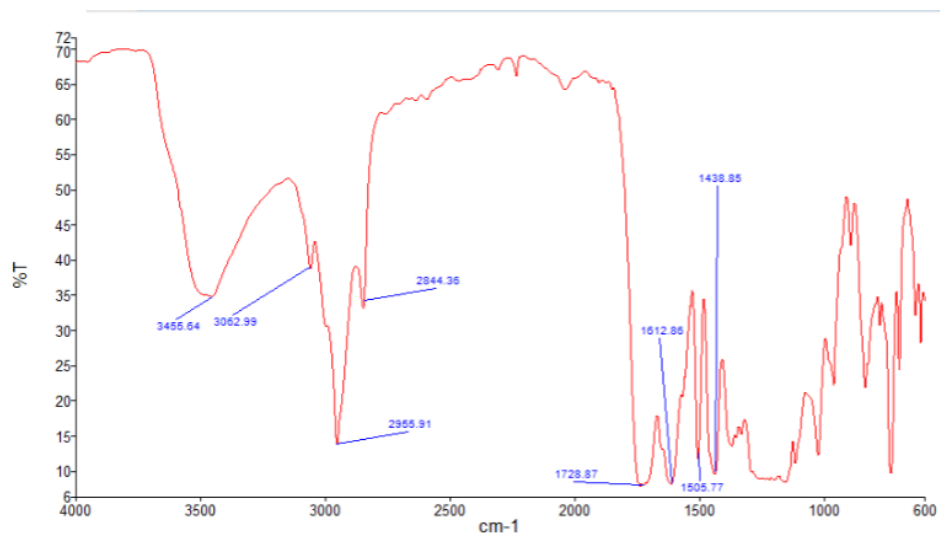


Figure S15 - FTIR (KBr) of co-oligomer **2a**.

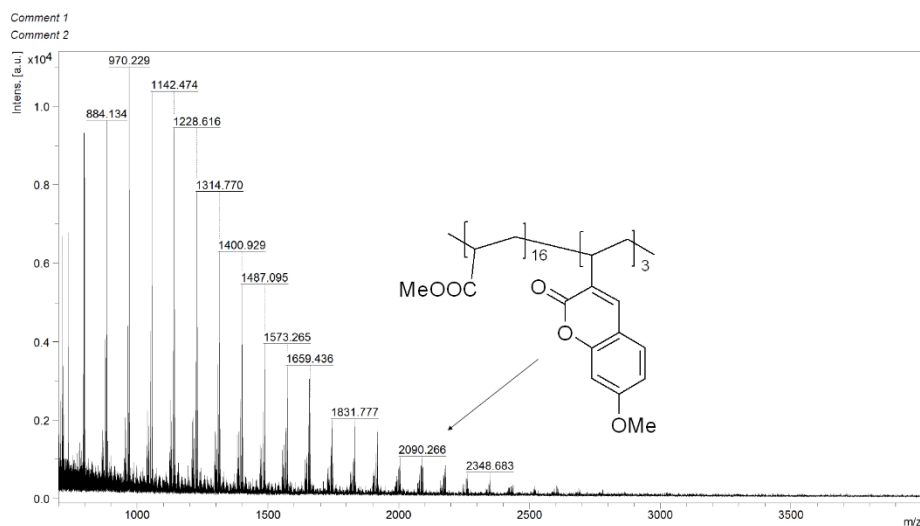


Figure S16 - Mass spectrum MALDI-TOF (DHB matrix) of co-oligomer **2a**. Possible constitution of ion m/z 2090 can be attributed to sixteen molecules of methyl acrylate, three of coumarin **2**, a terminal isobutyronitrile and a potassium ion.

Co-oligomer of methyl acrylate with 7-hydroxy-3-vinylcoumarin (**3a**)

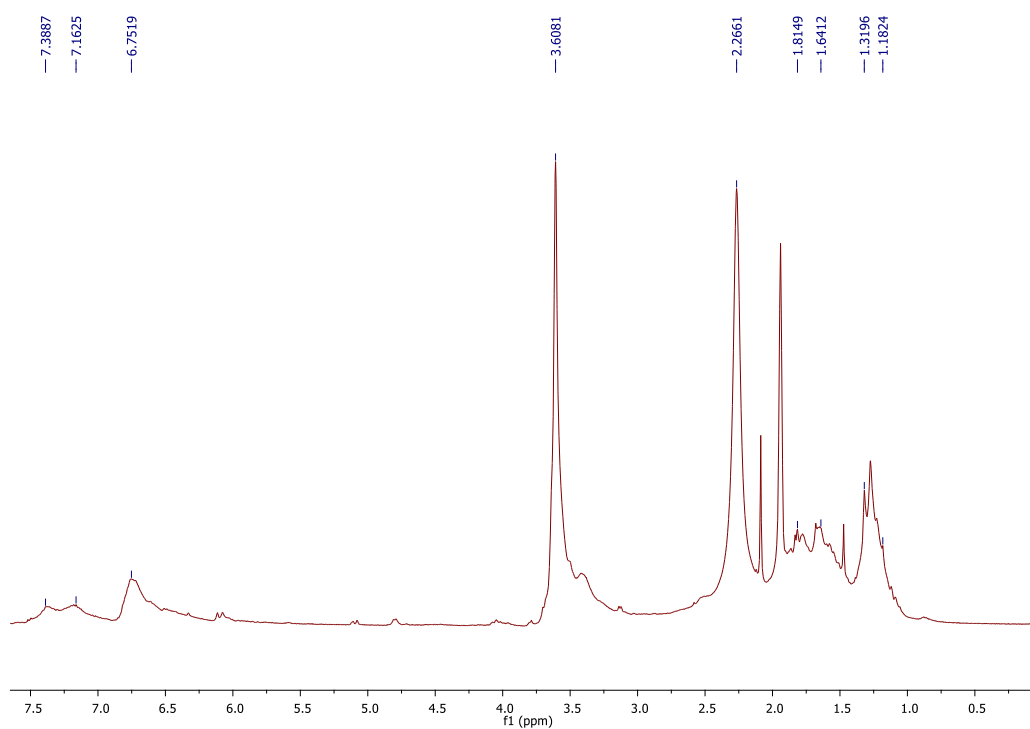


Figure S17 - ^1H (400 MHz, CD_3CN) of co-oligomer **3a**.

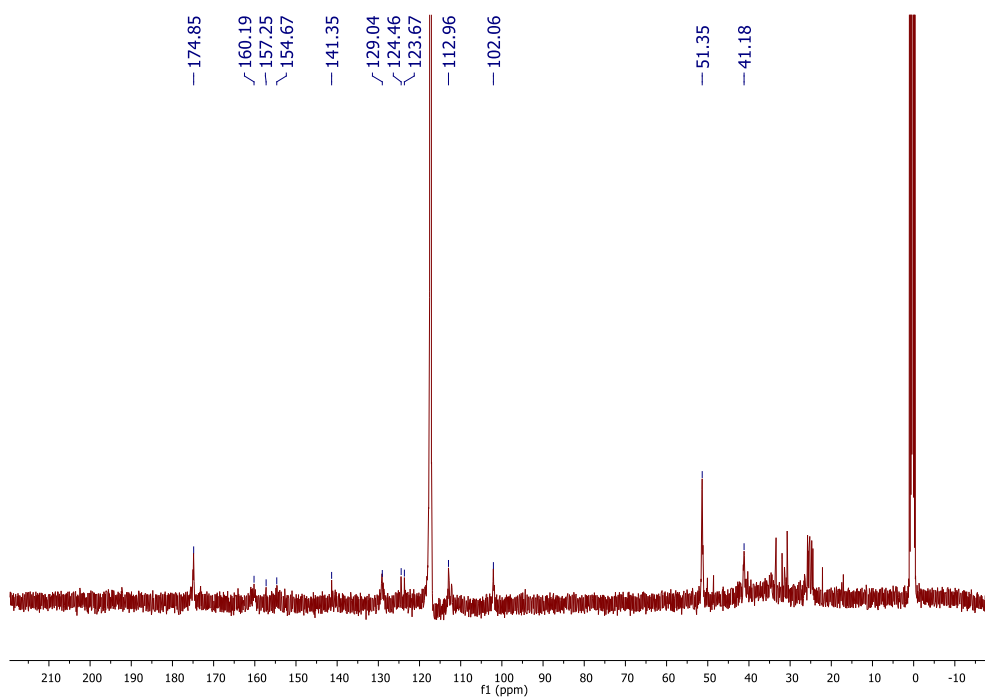


Figure S18 - ^{13}C (100 MHz, CD_3CN) of co-oligomer **3a**.

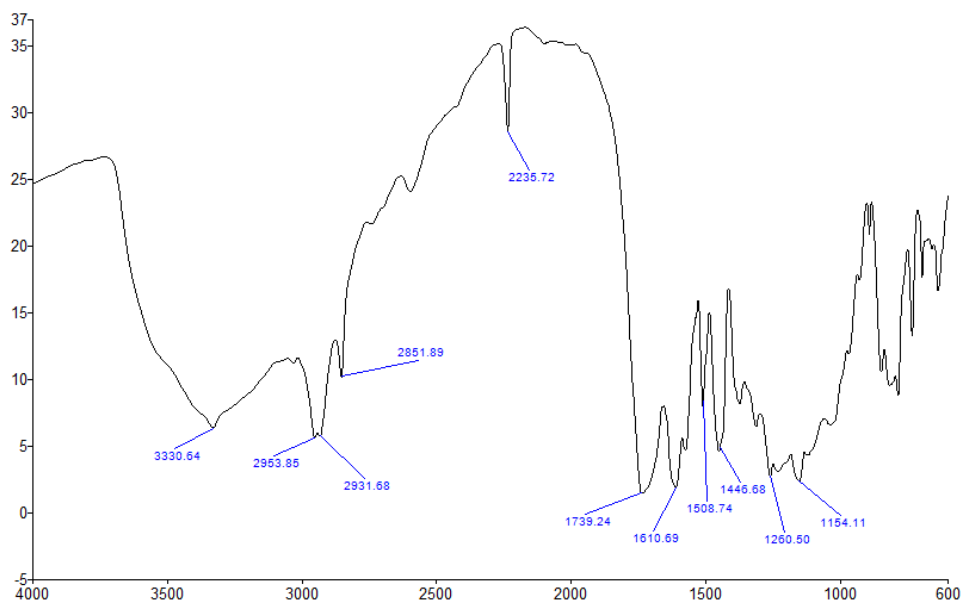


Figure S19 - FTIR (KBr) of co-oligomer **3a**.

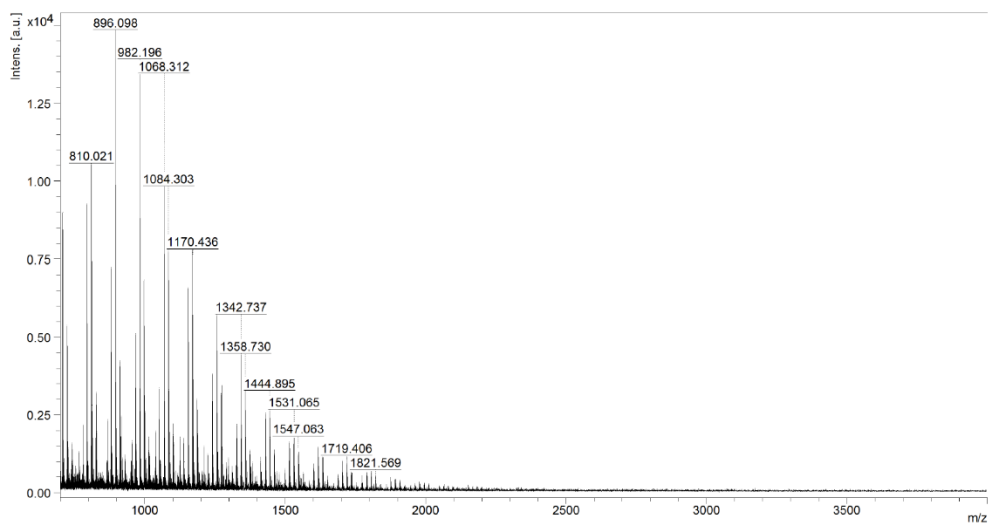


Figure S20 - Mass spectrum MALDI-TOF (DCTB matrix) of co-oligomer **3a**. Possible constitution of ion m/z 1531 can be attributed to ten molecules of methyl acrylate, two of coumarin **3**, a terminal isobutyronitrile and a potassium ion.

Co-oligomer of methyl acrylate with 3-vinylcoumarin (**1a**)

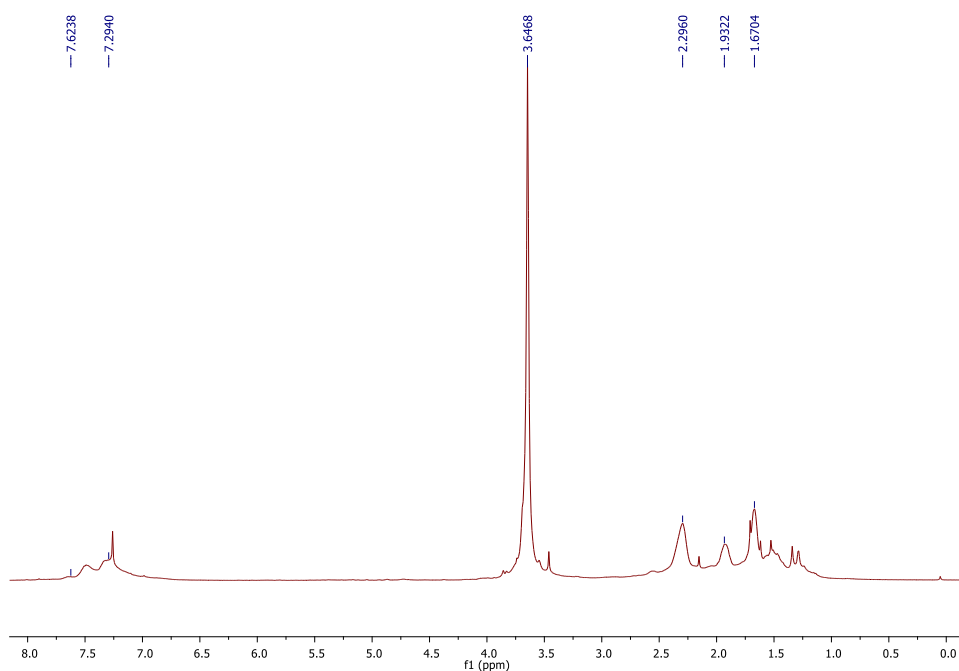


Figure S21 - ¹H (400 MHz, CDCl₃) of co-oligomer **1a**.

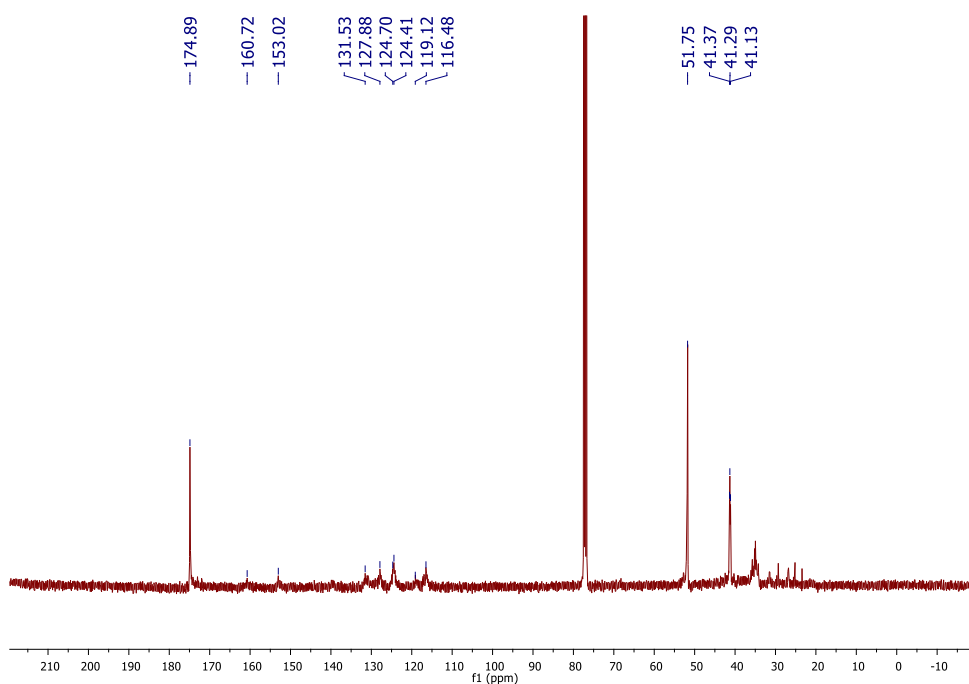


Figure S22 - ¹³C (100 MHz, CDCl₃) of co-oligomer **1a**.

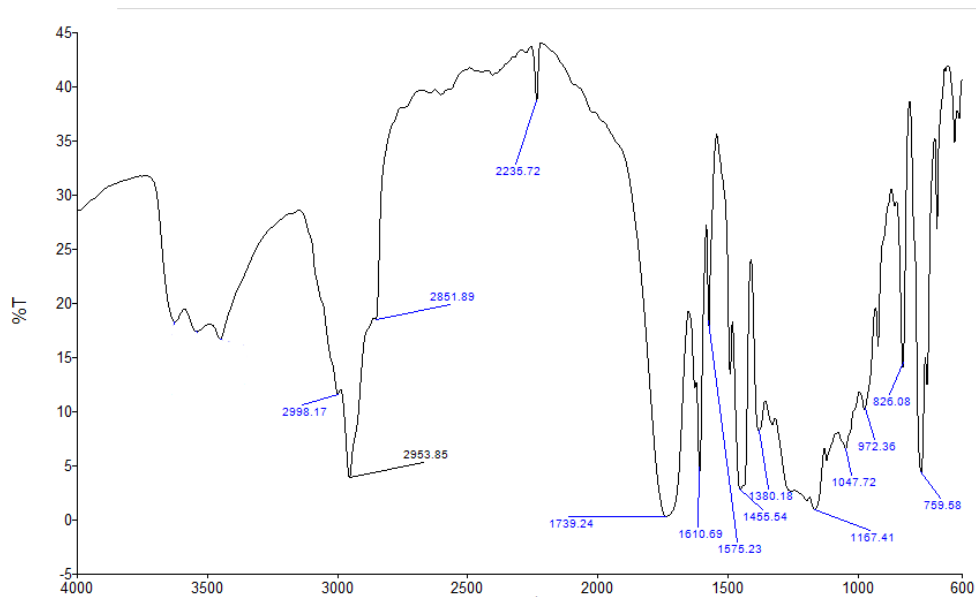


Figure S23 - FTIR (NaCl) of co-oligomer 1a.

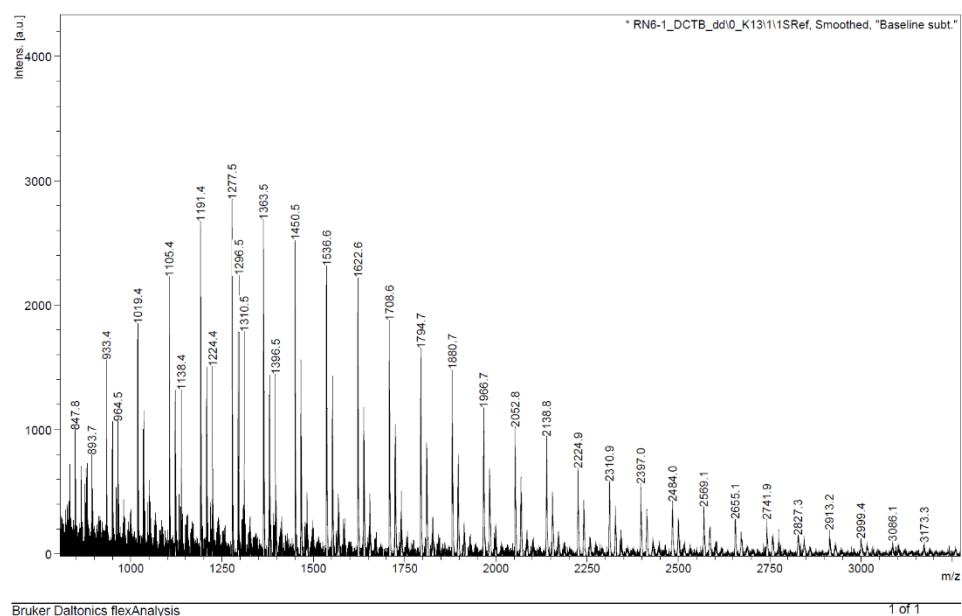


Figure S24 - Mass spectrum MALDI-TOF (DCTB matrix) of co-oligomer 1a.