

Supplementary Information

An Efficient Methodology for the Synthesis of 3-Styryl Coumarins

Sérgio M. A. Martins,^a Paula C. S. Branco^b and António M. D. R. L. Pereira^{*,a}

^aCentro de Química, Departamento de Química, Universidade de Évora,
Rua Romão Ramalho, 59, 7000-671 Évora, Portugal

^bREQUIMTE, Departamento de Química, Faculdade de Ciências e Tecnologia (FCT),
Universidade Nova de Lisboa, 2829-516 Caparica, Portugal

¹H, ¹³C and Mass Spectra

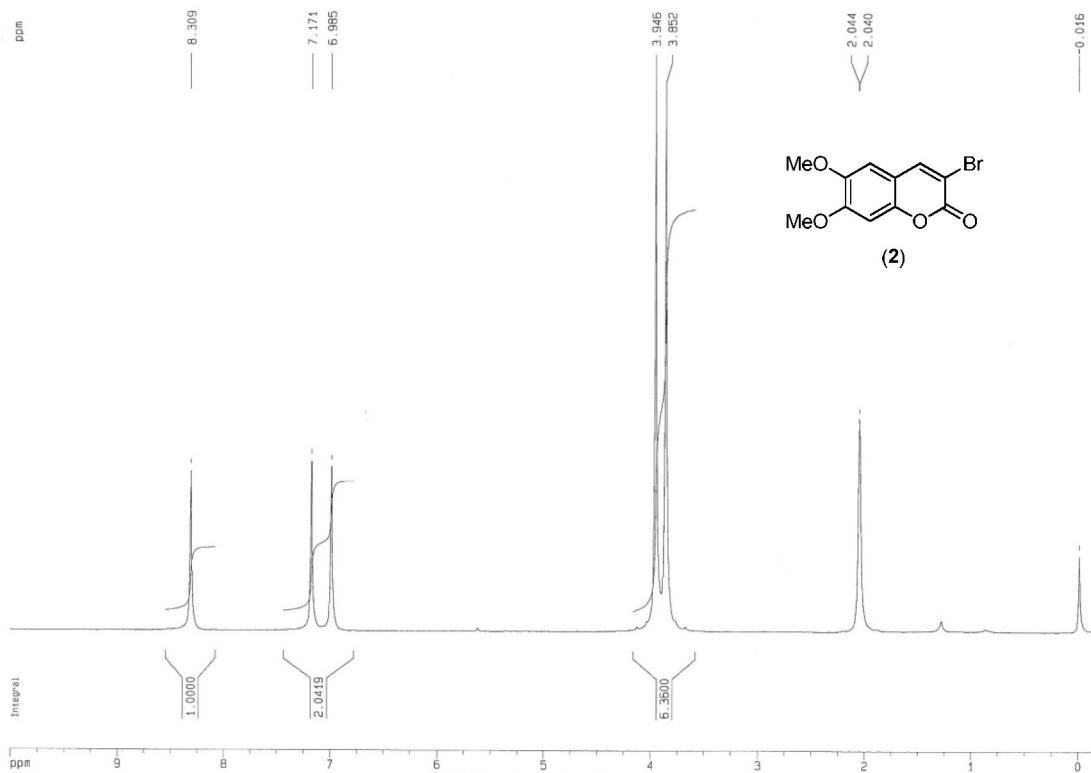


Figure S1. ¹H NMR spectrum (400 MHz, CDCl₃) of 3-bromo-6,7-dimethoxycoumarin (2).

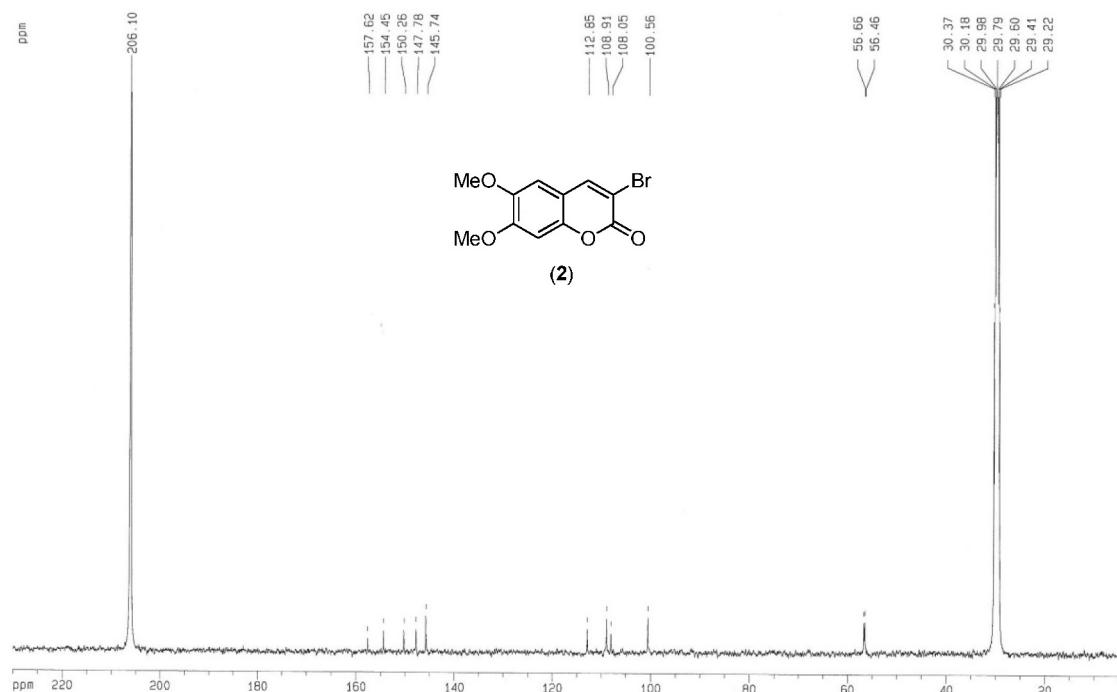


Figure S2. ^{13}C NMR spectrum (100 MHz, CDCl_3) of 3-bromo-6,7-dimethoxycoumarin (2).

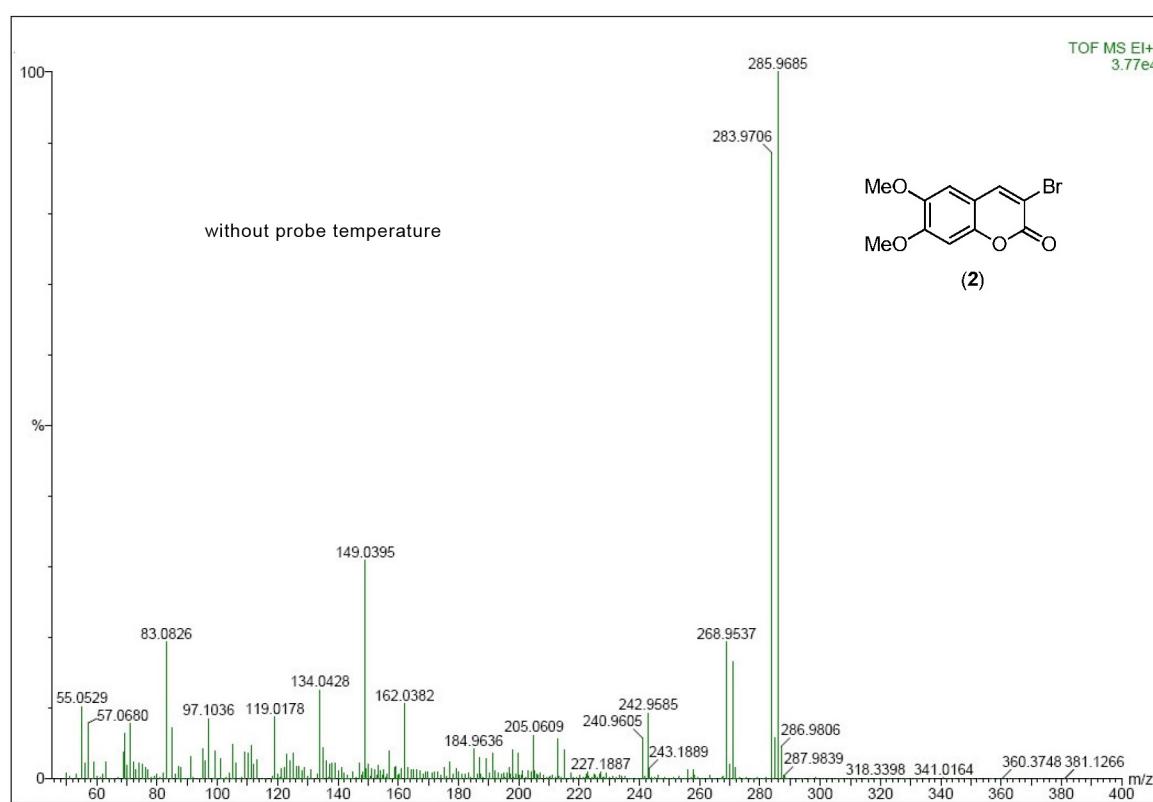


Figure S3. Electron impact mass spectrum of 3-bromo-6,7-dimethoxycoumarin (2).

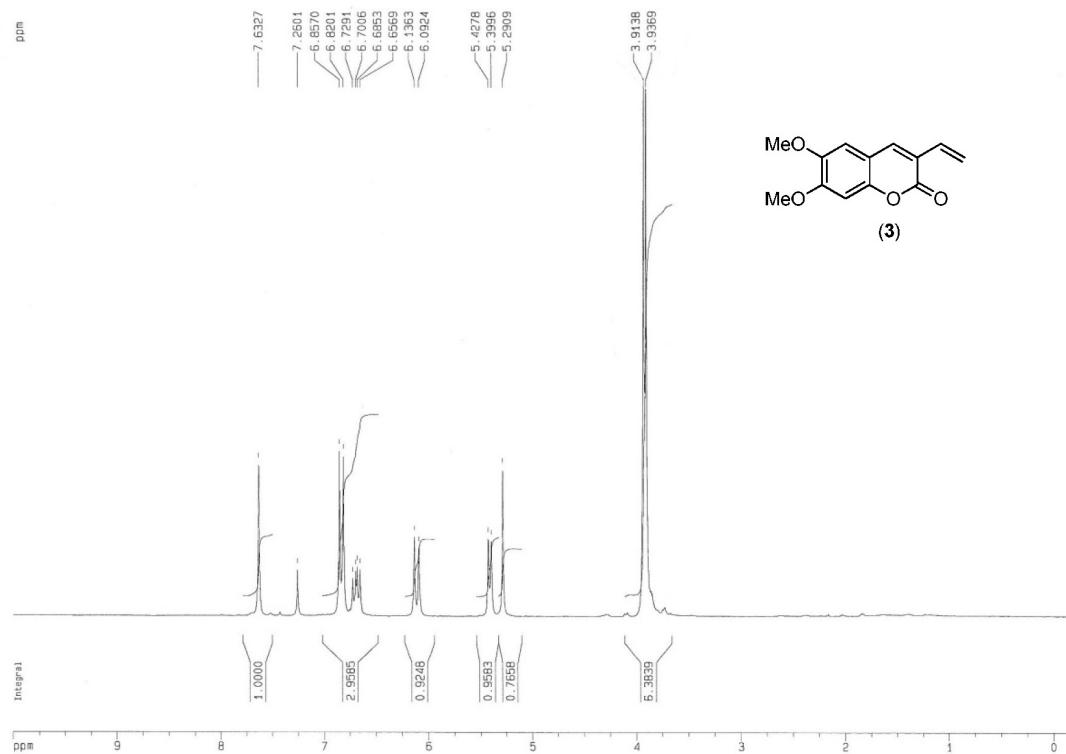


Figure S4. ¹H NMR spectrum (400 MHz, CDCl₃) of 3-vinyl-6,7-dimethoxycoumarin (3).

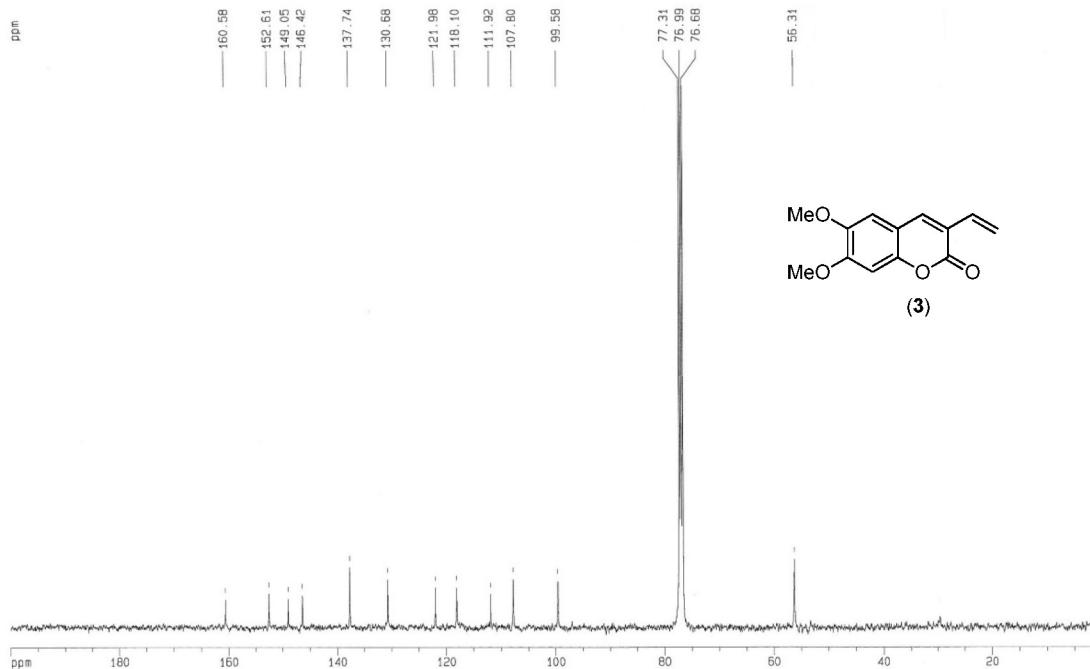


Figure S5. ¹³C NMR spectrum (100 MHz, CDCl₃) of 3-vinyl-6,7-dimethoxycoumarin (3).

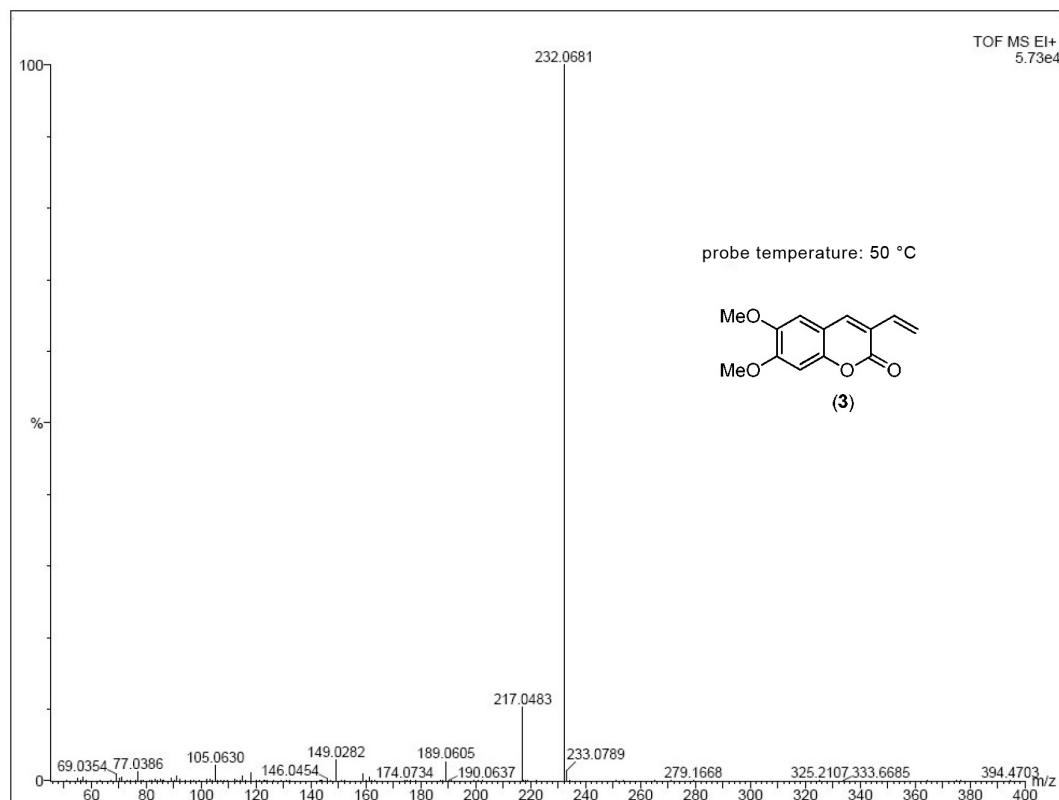


Figure S6. Electron impact mass spectrum of 3-vinyl-6,7-dimethoxycoumarin (3).

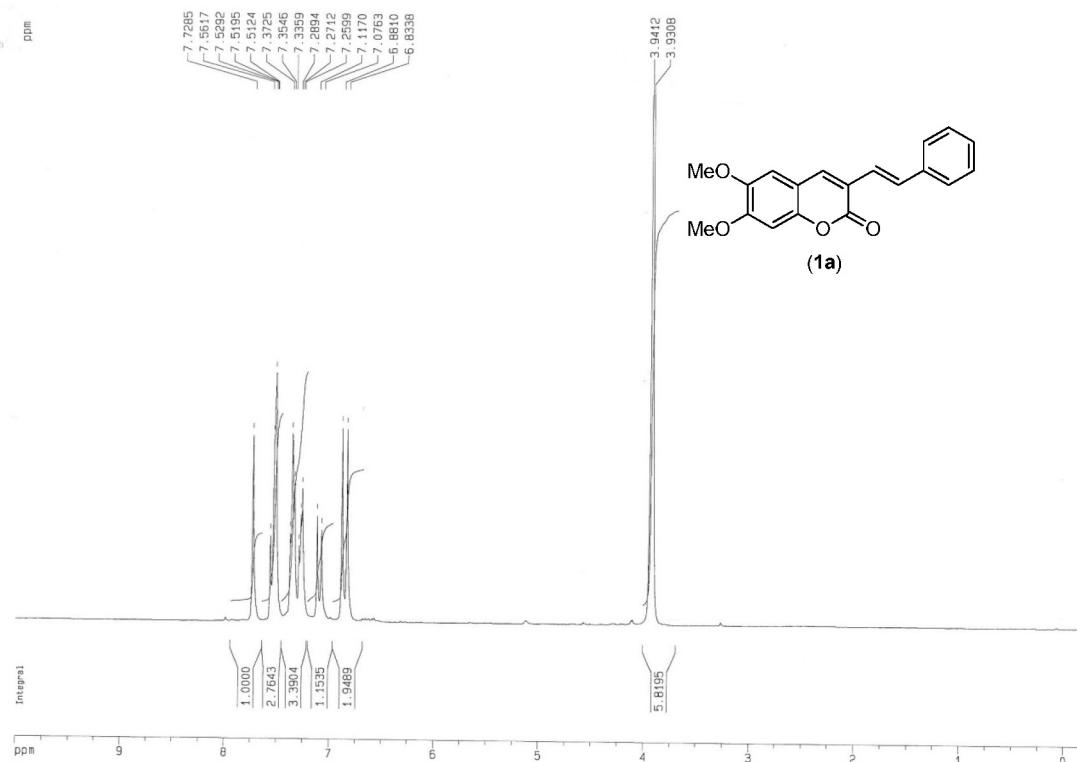


Figure S7. ¹H NMR spectrum (400 MHz, CDCl₃) of (E)-6,7-dimethoxy-3-styrylcoumarin (1a).

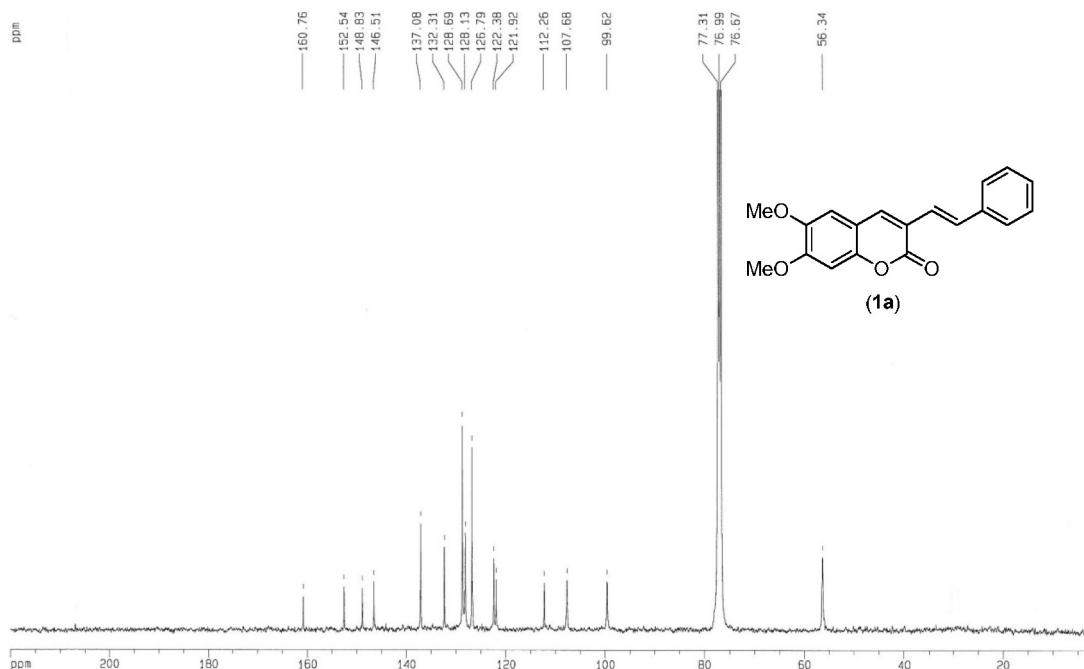


Figure S8. ^{13}C NMR spectrum (100 MHz, CDCl_3) of (*E*)-6,7-dimethoxy-3-styrylcoumarin (**1a**).

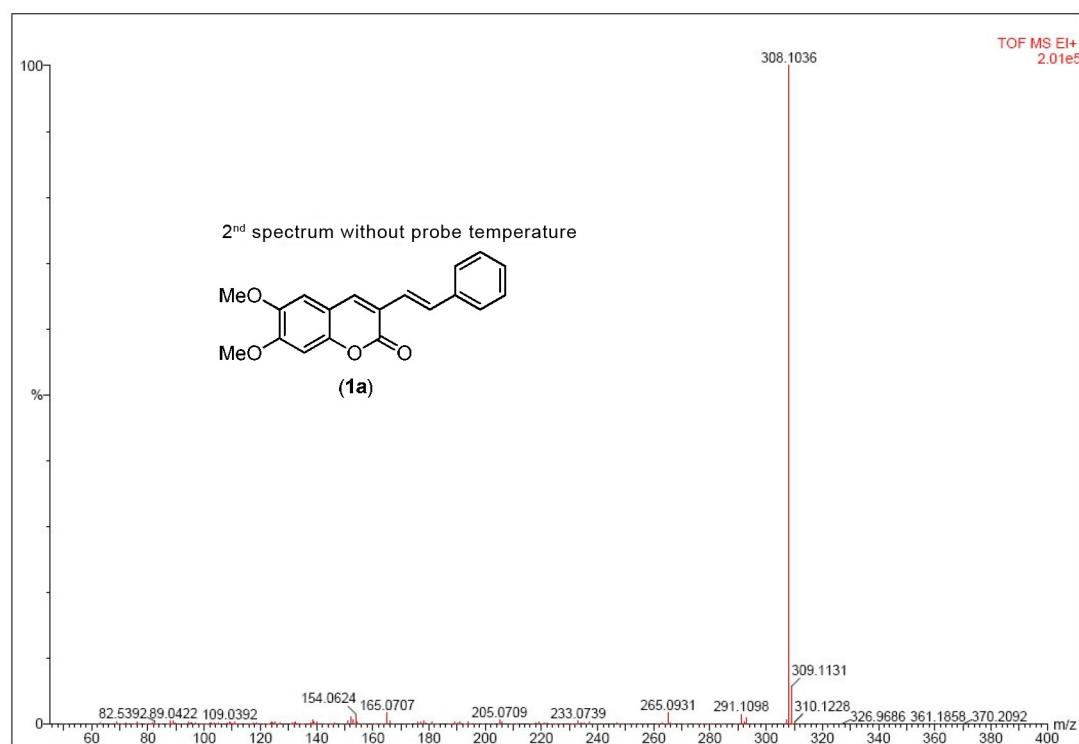


Figure S9. Electron impact mass spectrum of (*E*)-6,7-dimethoxy-3-styrylcoumarin (**1a**).

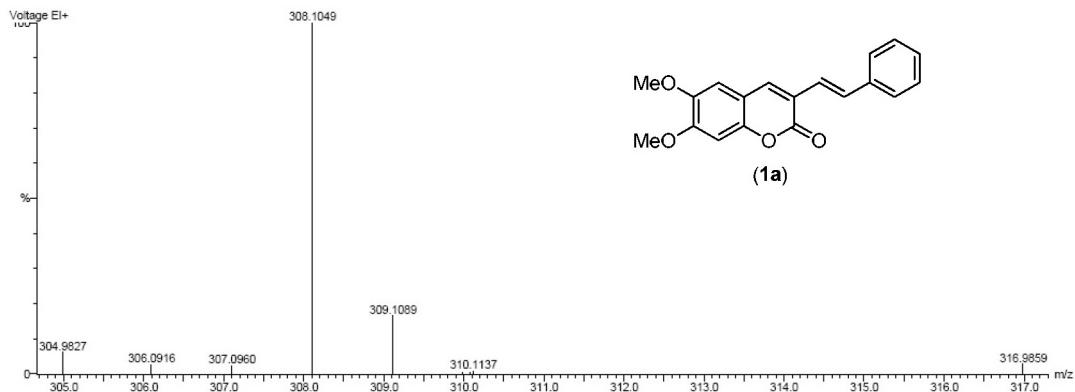


Figure S10. High resolution electron impact mass spectrum of (*E*)-6,7-dimethoxy-3-styrylcoumarin (**1a**).

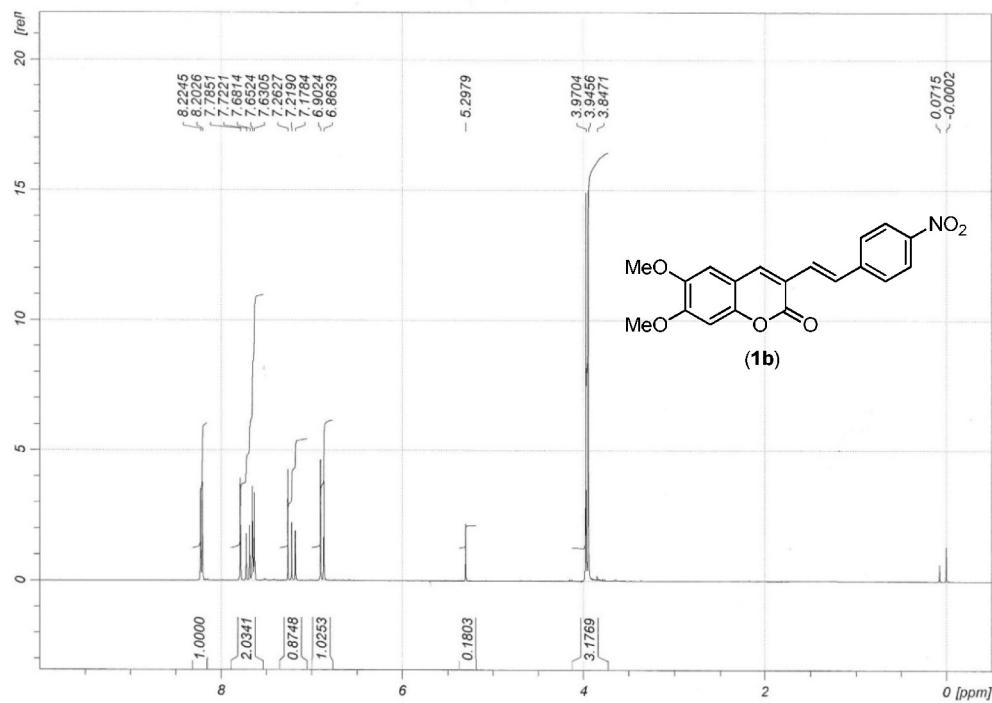


Figure S11. ¹H NMR spectrum (400 MHz, CDCl₃) of (*E*)-6,7-dimethoxy-3-(4-nitrostyryl)coumarin (**1b**).

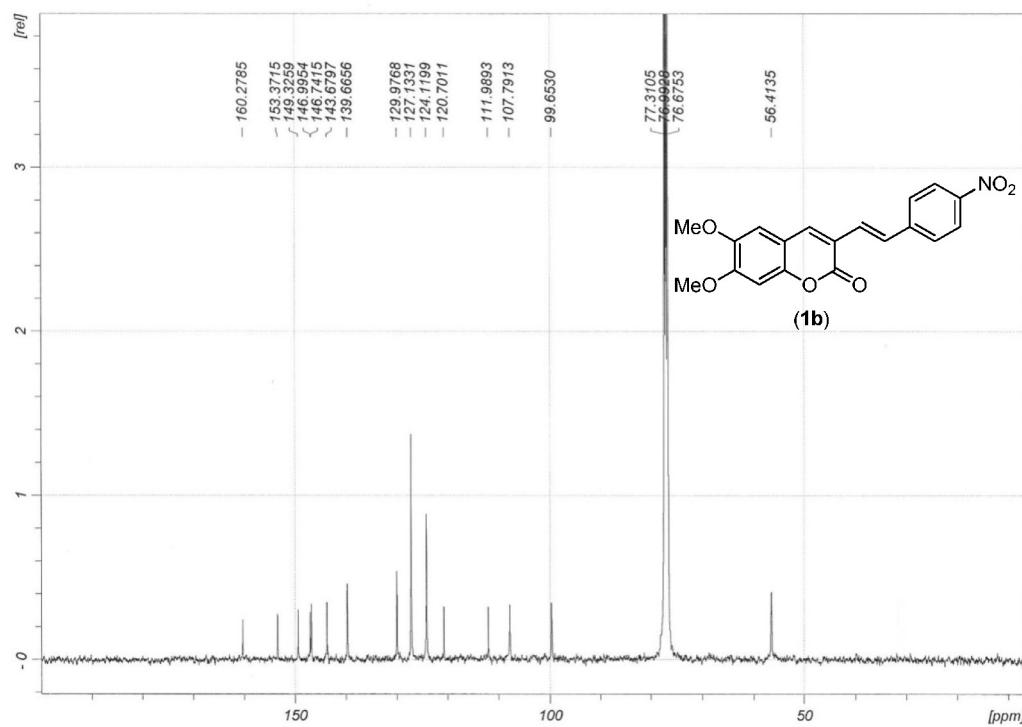


Figure S12. ^{13}C NMR spectrum (100 MHz, CDCl_3) of (*E*)-6,7-dimethoxy-3-(4-nitrostyryl)coumarin (**1b**).

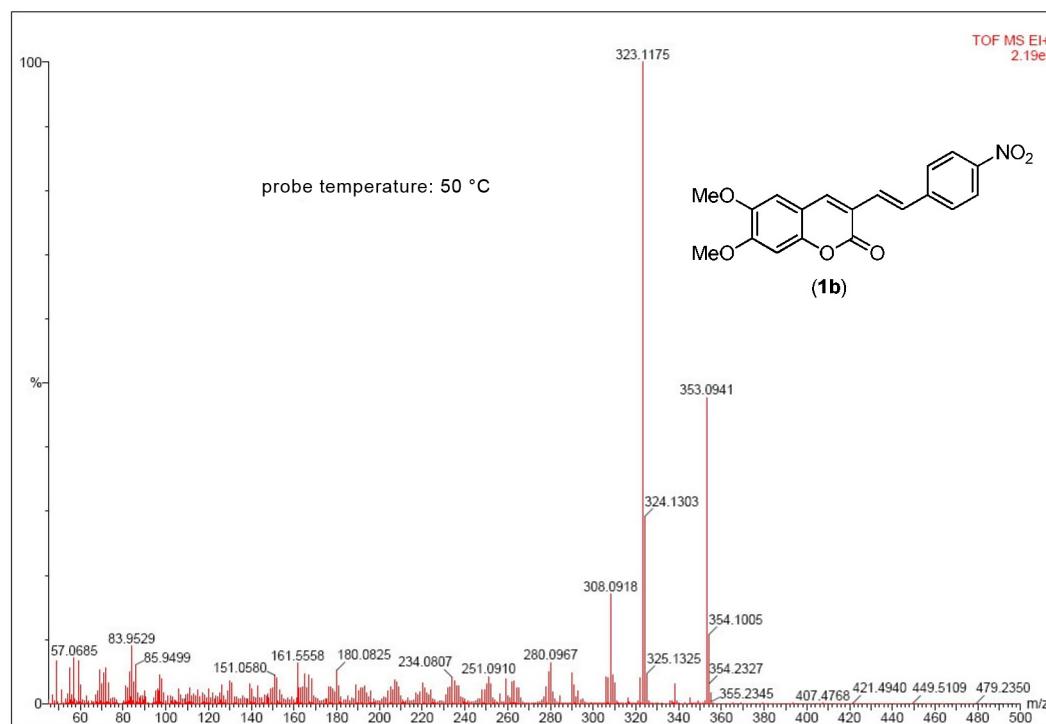


Figure S13. Electron impact mass spectrum of (*E*)-6,7-dimethoxy-3-(4-nitrostyryl)coumarin (**1b**).

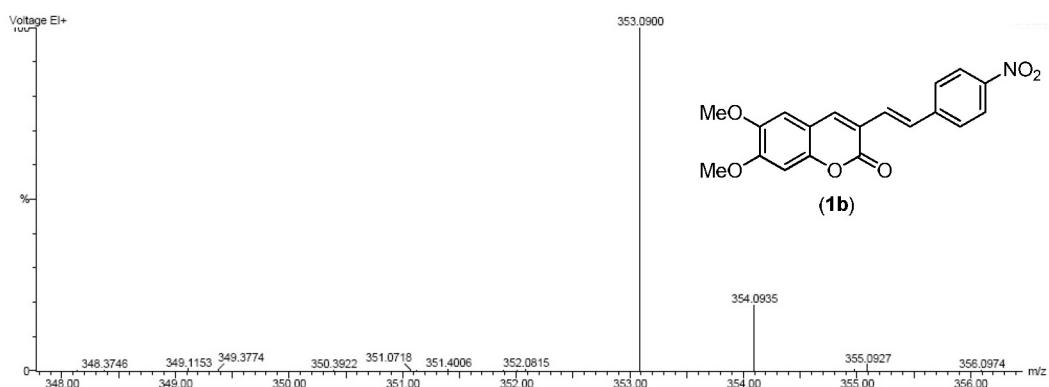


Figure S14. High resolution electron impact mass spectrum of (*E*)-6,7-dimethoxy3-(4-nitrostyryl) coumarin (**1b**).

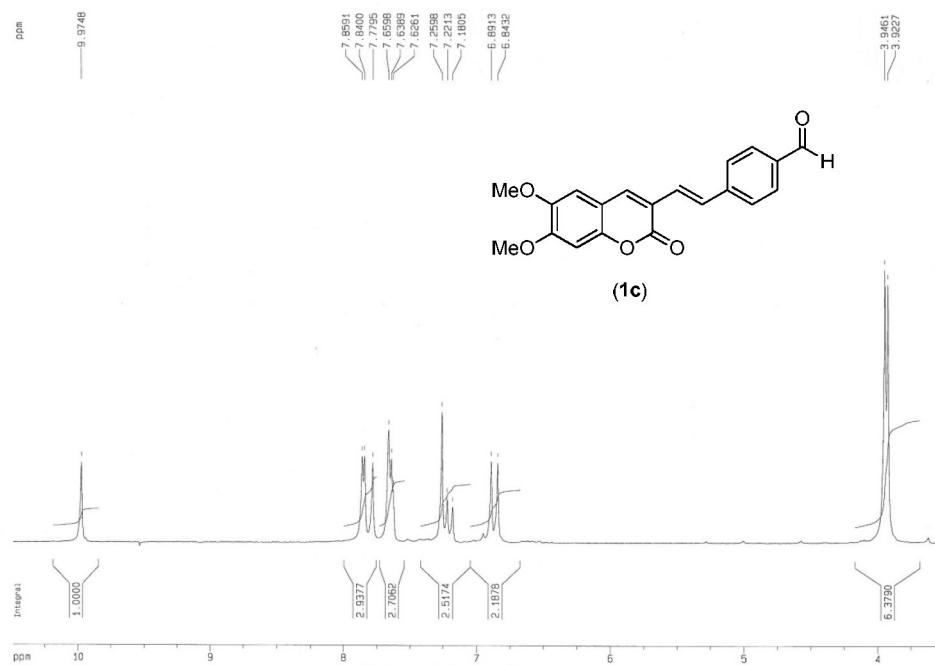


Figure S15. ¹H NMR spectrum (400 MHz, CDCl₃) of (*E*)-6,7-dimethoxy-3-(4-formylstyryl)coumarin (**1c**).

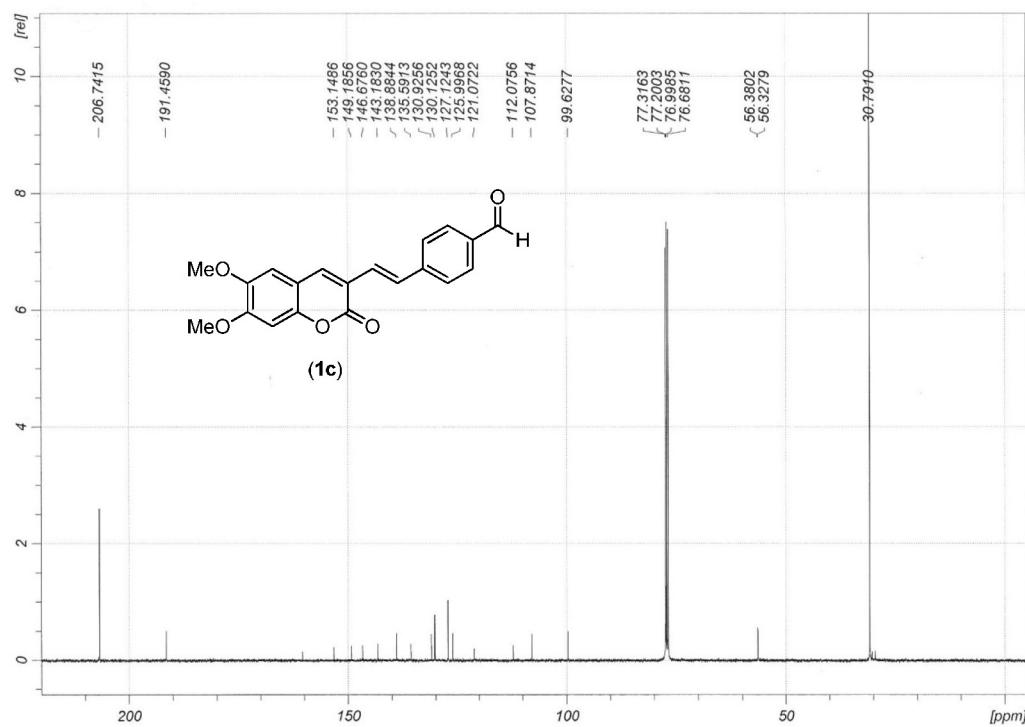


Figure S16. ¹³C NMR spectrum (100 MHz, CDCl₃) of (E)-6,7-dimethoxy-3-(4-formylstyryl)coumarin (**1c**).

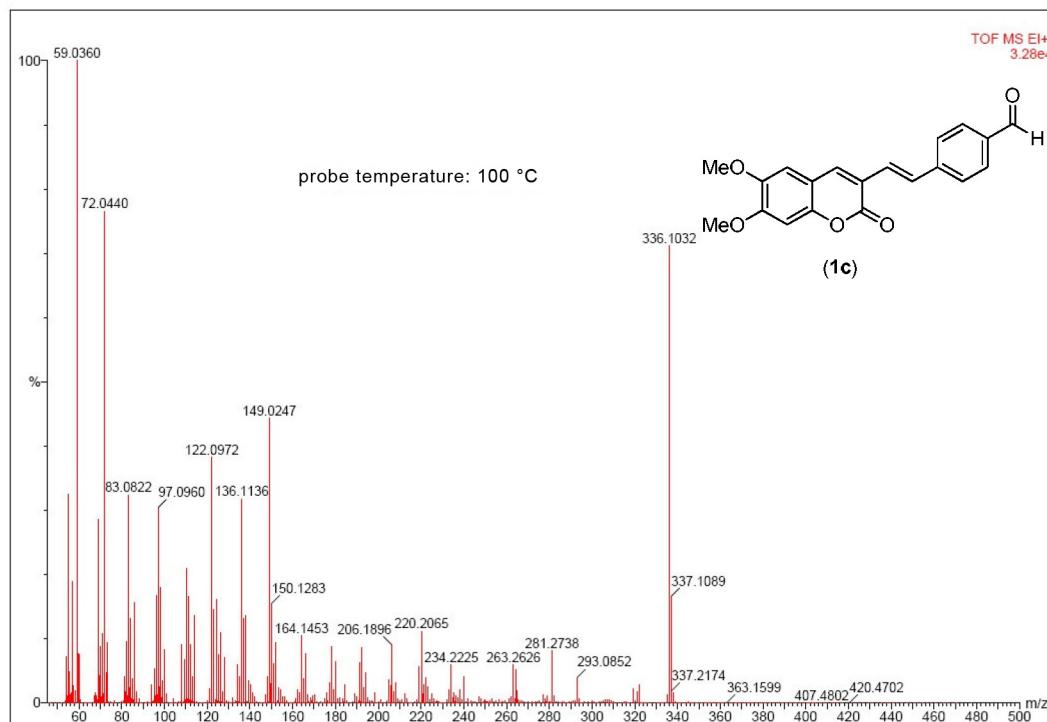


Figure S17. Electron impact mass spectrum of (E)-6,7-dimethoxy-3-(4-formylstyryl)coumarin (**1c**).

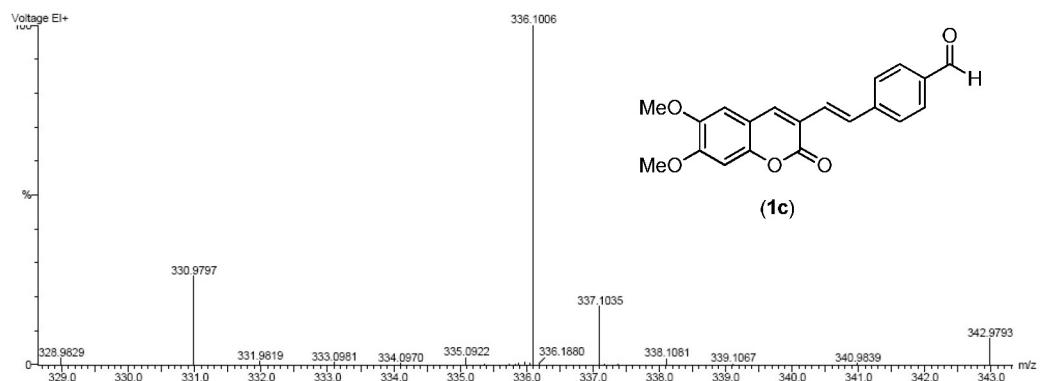


Figure S18. High resolution electron impact mass spectrum of (*E*)-6,7-dimethoxy-3-(4-formylstyryl) coumarin (**1c**).

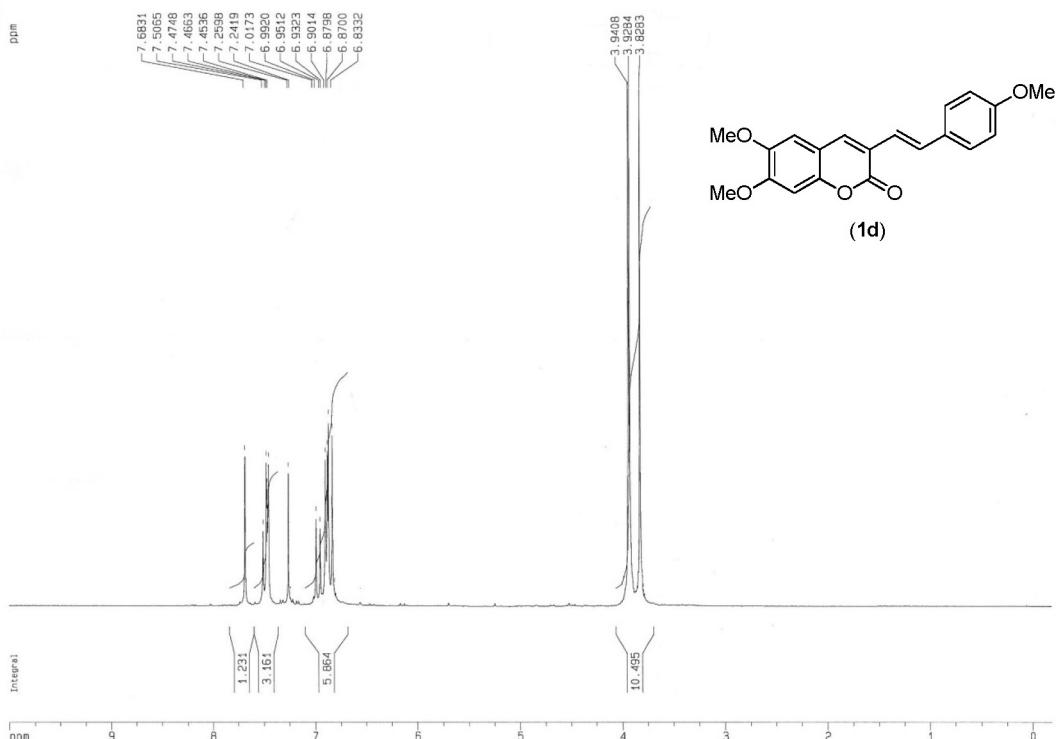


Figure S19. ¹H NMR spectrum (400 MHz, CDCl₃) of (*E*)-6,7-dimethoxy-3-(4-methoxystyryl)coumarin (**1d**).

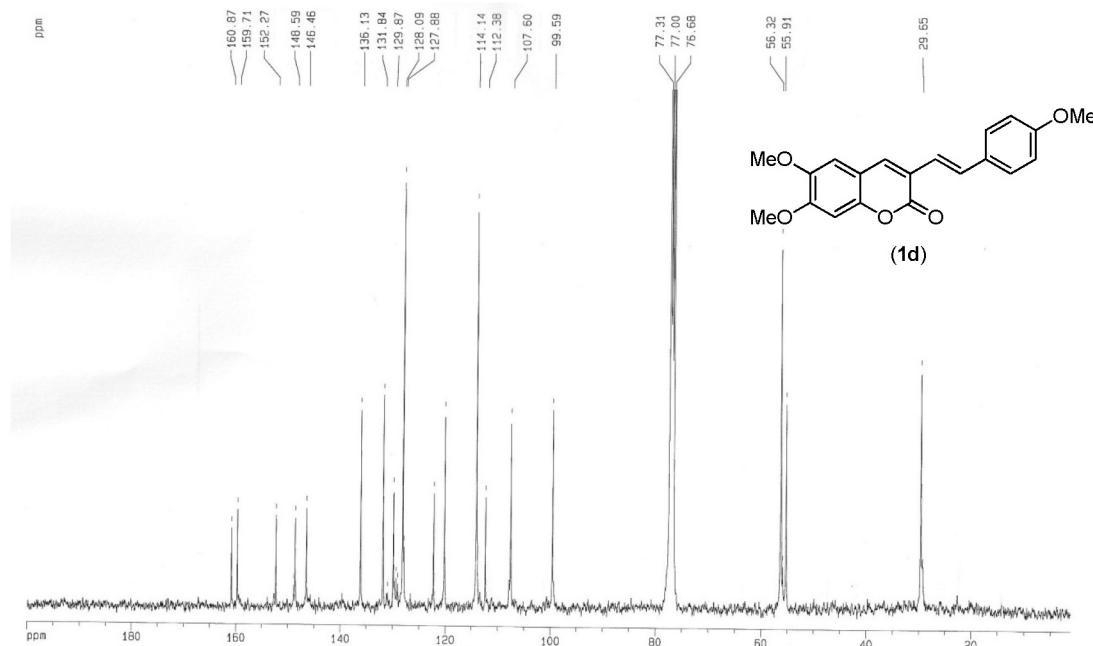


Figure S20. ^{13}C NMR spectrum (100 MHz, CDCl_3) of (*E*)-6,7-dimethoxy-3-(4-methoxystyryl)coumarin (**1d**).

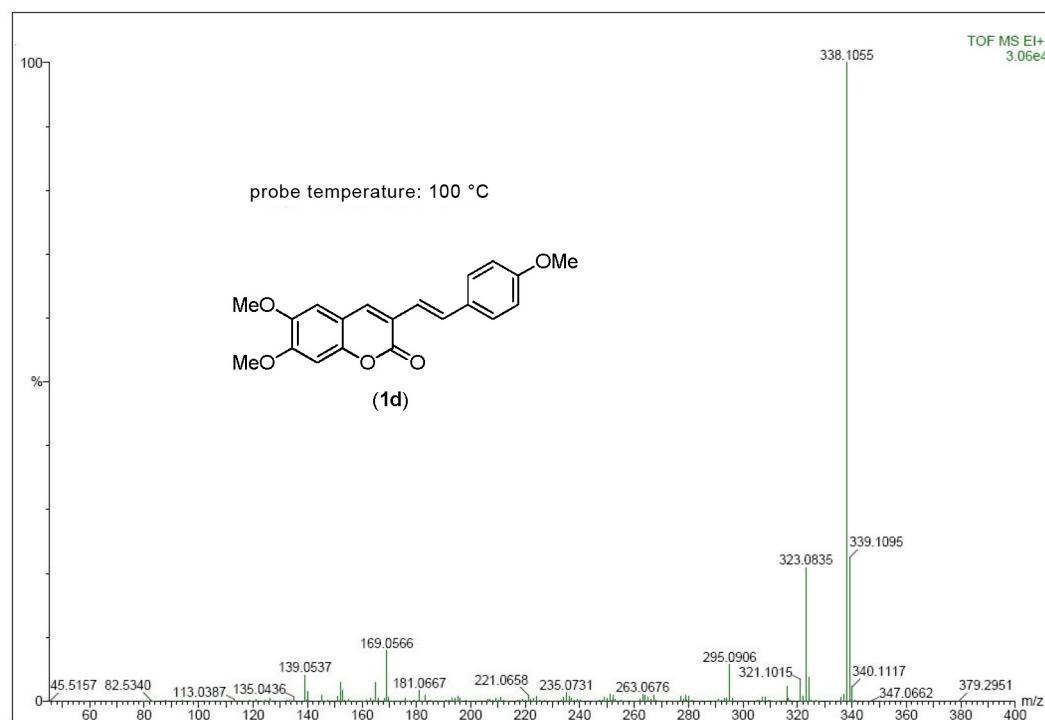


Figure S21. Electron impact mass spectrum of (*E*)-6,7-dimethoxy-3-(4-methoxystyryl)coumarin (**1d**).

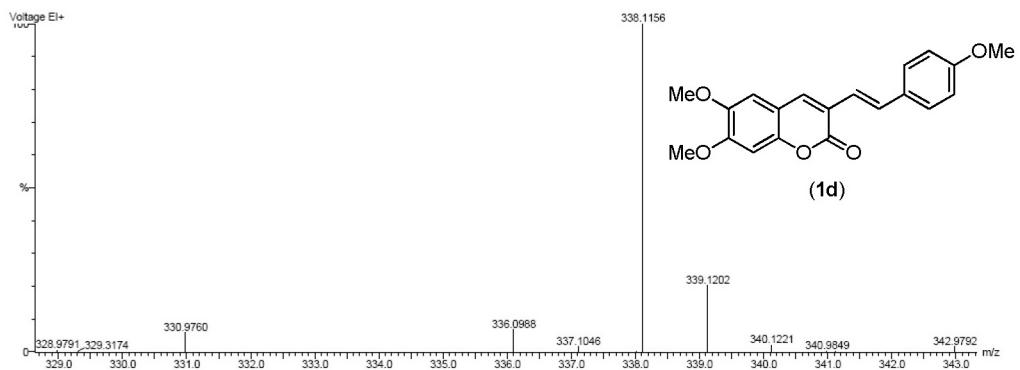


Figure S22. High resolution electron impact mass spectrum of (*E*)-6,7-dimethoxy-3-(4-methoxystyryl)coumarin (**1d**).