

Three-Component Reactions of 7-Hydroxy Coumarin Derivatives, Acetylenic Esters and Aromatic Aldehydes in the Presence of NEt₃

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Figure S1. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4a.



Figure S2. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4a.



Figure S3. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4a.

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Figure S4. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4a.



Figure S5. IR spectrum (KBr) of 4a.



Figure S6. Mass spectrum of 4a.



Figure S7. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4b.



Figure S8. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4b.



Figure S9. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4b.



Figure S10. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4b.



Figure S11. IR spectrum (KBr) of 4b.



Figure S12. Mass spectrum of 4b.



Figure S13. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4c.



Figure S14. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4c.



Figure S15. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4c.



Figure S16. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4c.



Figure S17. IR spectrum (KBr) of 4c.



Figure S18. Mass spectrum of 4c.



Figure S19. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4d.

8.017 8.017 7.985 7.7.985 7.7.985 7.7.985

MM

8.0

6.

7.9

8.1





Figure S20. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4d.



Figure S21. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4d.



Figure S22. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4d.



Figure S23. IR spectrum (KBr) of 4d.





Figure S24. Mass spectrum of 4d.



Figure S25. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4e.





Figure S26. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4e.



Figure S27. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4e.



Figure S28. IR spectrum (KBr) of 4e.



Figure S29. Mass spectrum of 4e.



Figure S30. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4f.



Figure S31. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4f.





Figure S32. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4f.



Figure S33. 13 C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4f.



Figure S34. IR spectrum (KBr) of 4f.



Figure S35. Mass spectrum of 4f.



Figure S36. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4g.



Figure S37. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4g.



Figure S38. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4g.



Figure S39. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4g.



Figure S40. ¹⁹F NMR spectrum (376.5 MHz, CDCl₃) of 4g.



Figure S41. IR spectrum (KBr) of 4g.



Figure S42. Mass spectrum of 4g.



Figure S43. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4h.



Figure S44. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4h.



Figure S45. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4h.

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Figure S46. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4h.



Figure S47. IR spectrum (KBr) of 4h.



Figure S48. Mass spectrum of 4h.



Figure S49. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4i.



Figure S50. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4i.



Figure S51. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 4i.



Figure S52. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4i.



Figure S53. IR spectrum (KBr) of 4i.



Figure S54. Mass spectrum of 4i.



Figure S55. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 4j.



Figure S56. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 4j.



Figure S57. 13 C NMR spectrum (100.6 MHz, CDCl₃) of 4j.



Figure S58. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 4j.



Figure S59. ¹⁹F NMR spectrum (376.5 MHz, CDCl₃) of 4j.



Figure S60. IR spectrum (KBr) of 4j.



Figure S61. Mass spectrum of 4j.



Figure S62. ¹H NMR spectrum (400.13 MHz, CDCl₃) of 5.



Figure S63. ¹H NMR spectrum (expanded) (400.13 MHz, CDCl₃) of 5.



Figure S64. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of 5.



Figure S65. ¹³C NMR spectrum (expanded) (100.6 MHz, CDCl₃) of 5.



Figure S66. IR spectrum (KBr) of 5.



Figure S67. Mass spectrum of 5.