

Supplementary Information

Synthesis, Characterization and Conformational Analysis of Two Novel 4(1*H*)-Quinolinones

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Table S1. Names of synthesized compounds

Compound code	Compound name
5	(<i>E</i>)-3-(2-nitrobenzylidene)-2-(4-methoxyphenyl)-1-(phenylsulfonyl)-2,3-dihydroquinolin-4-(1 <i>H</i>)-one
6	(<i>E</i>)-3-(2-chlorobenzylidene)-2-(2-methoxyphenyl)-1-phenylsulfonyl)-2,3-dihydroquinolin-4-(1 <i>H</i>)-one

Spectroscopic information

(*E*)-3-(2-Nitrobenzylidene)-2-(4-methoxyphenyl)-1-(phenylsulfonyl)-2,3-dihydroquinolin-4-(1*H*)-one (**5**)

Yield 32.5%; mp 184-185 °C; ¹H NMR (500 MHz, CDCl₃) δ 3.74 (s, 3H), 6.53 (s, 1H), 6.78 (d, *J* 8.55 Hz, 2H), 7.15 (d, *J* 7.63 Hz, 1H), 7.24 (t, *J* 7.63 Hz, 1H), 7.26 (t, *J* 8.55 Hz, 2H), 7.31 (m, 4H), 7.50 (m, 2H), 7.53 (t, *J* 7.63 Hz, 1H), 7.58 (t, *J* 7.63 Hz, 1H), 7.69 (d, *J* 8.24 Hz, 1H), 7.89 (d, *J* 7.94 Hz, 1H), 8.16 (s, 1H), 8.21 (d, *J* 7.94 Hz, 1H); IR (KBr) ν / cm⁻¹ 1738, 1676, 1607, 1525, 1349, 1165.

(*E*)-3-(2-Chlorobenzylidene)-2-(2-methoxyphenyl)-1-(phenylsulfonyl)-2,3-dihydroquinolin-4-(1*H*)-one (**6**)

Yield 44.46%; mp 204-205 °C; ¹H NMR (500 MHz, CDCl₃) δ 3.89 (s, 3H), 6.72 (t, *J* 7.48 Hz, 1H), 6.86 (m, 2H), 6.90 (s, 1H), 6.92 (d, *J* 8.24 Hz, 1H), 7.13 (t, *J* 7.63 Hz, 1H), 7.22 (m, 2H), 7.25 (m, 1H), 7.26 (m, 2H), 7.29 (m, 1H), 7.33 (t, *J* 7.63 Hz, 1H), 7.47 (d, *J* 7.32 Hz, 1H), 7.50 (m, 2H), 7.57 (d, *J* 7.93 Hz, 1H), 7.92 (m, 2H); IR (KBr) ν / cm⁻¹ 1739, 1668, 1598, 1359, 1245, 1207, 759.

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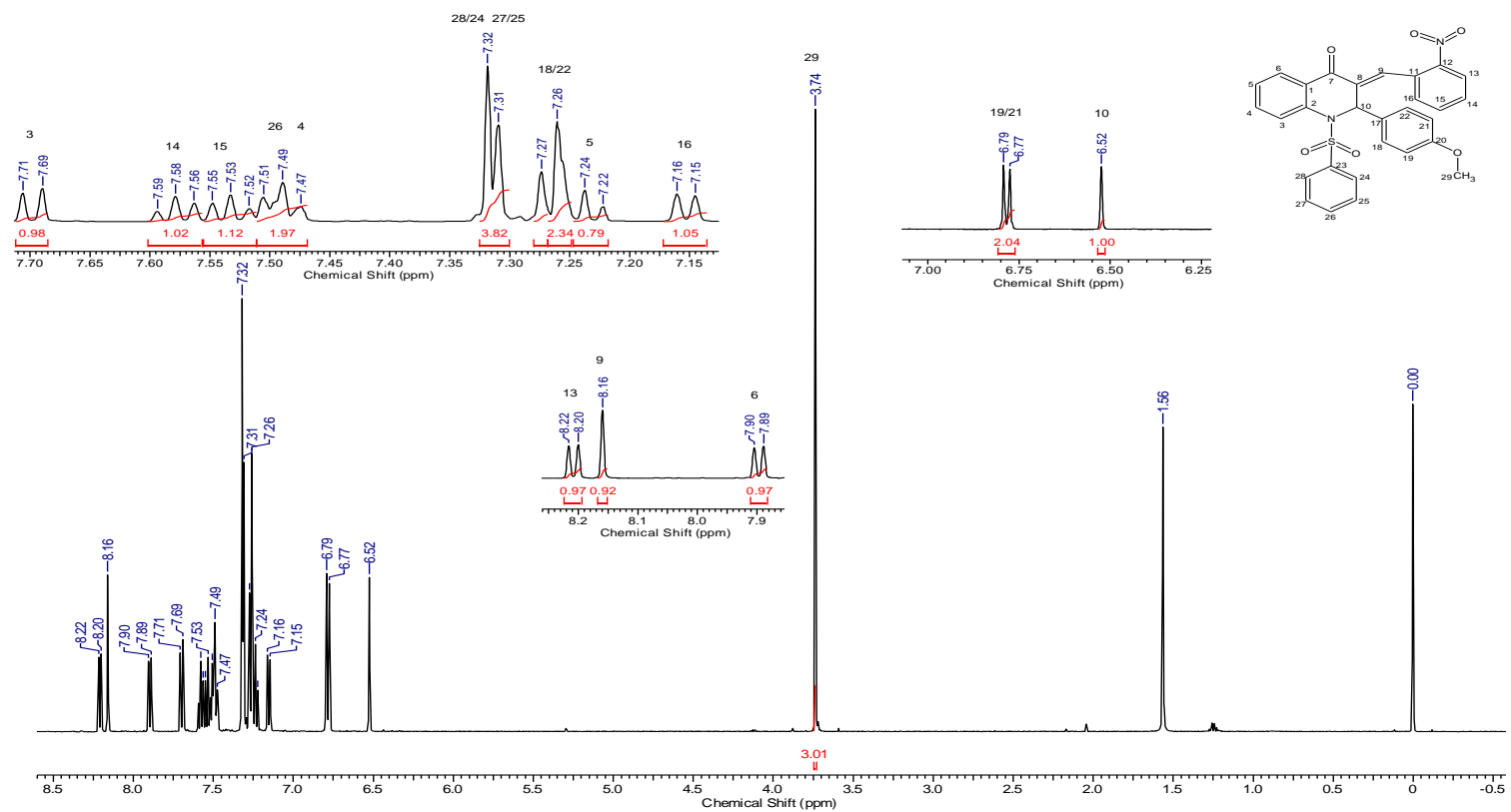


Figure S1. ^1H NMR (500 MHz, CDCl_3) of compound 5.

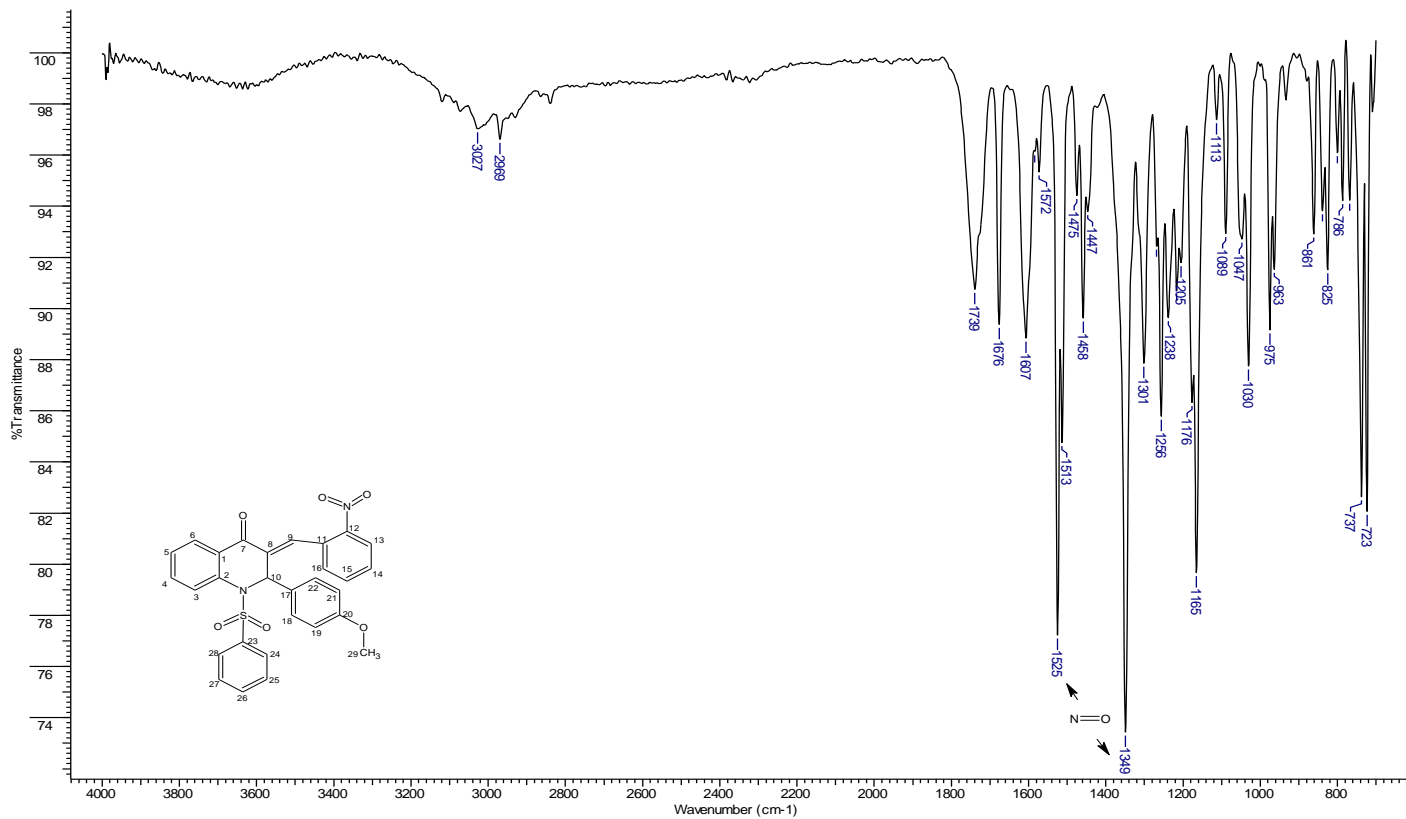


Figure S2. FTIR (KBr) spectrum of compound 5.

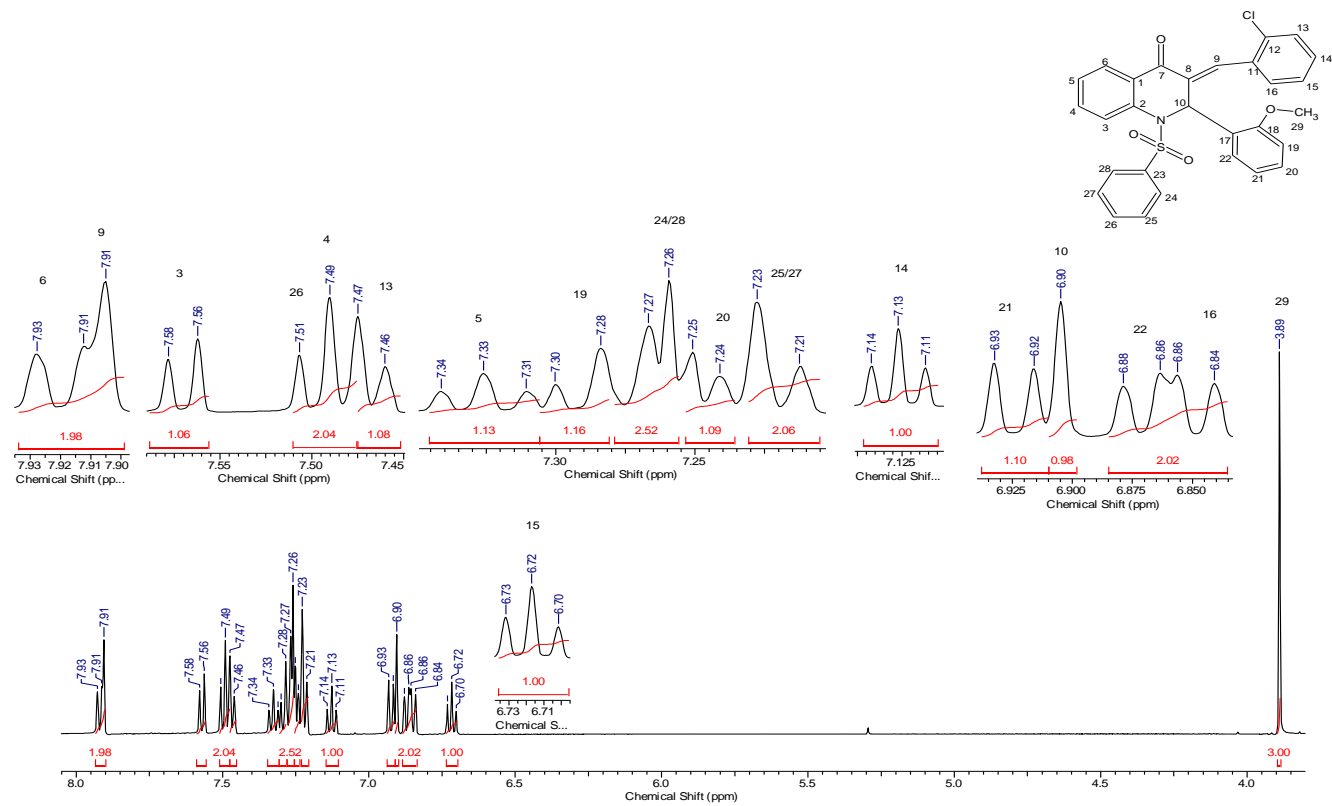


Figure S3. ¹H NMR spectrum (500 MHz, CDCl₃) of compound 6.

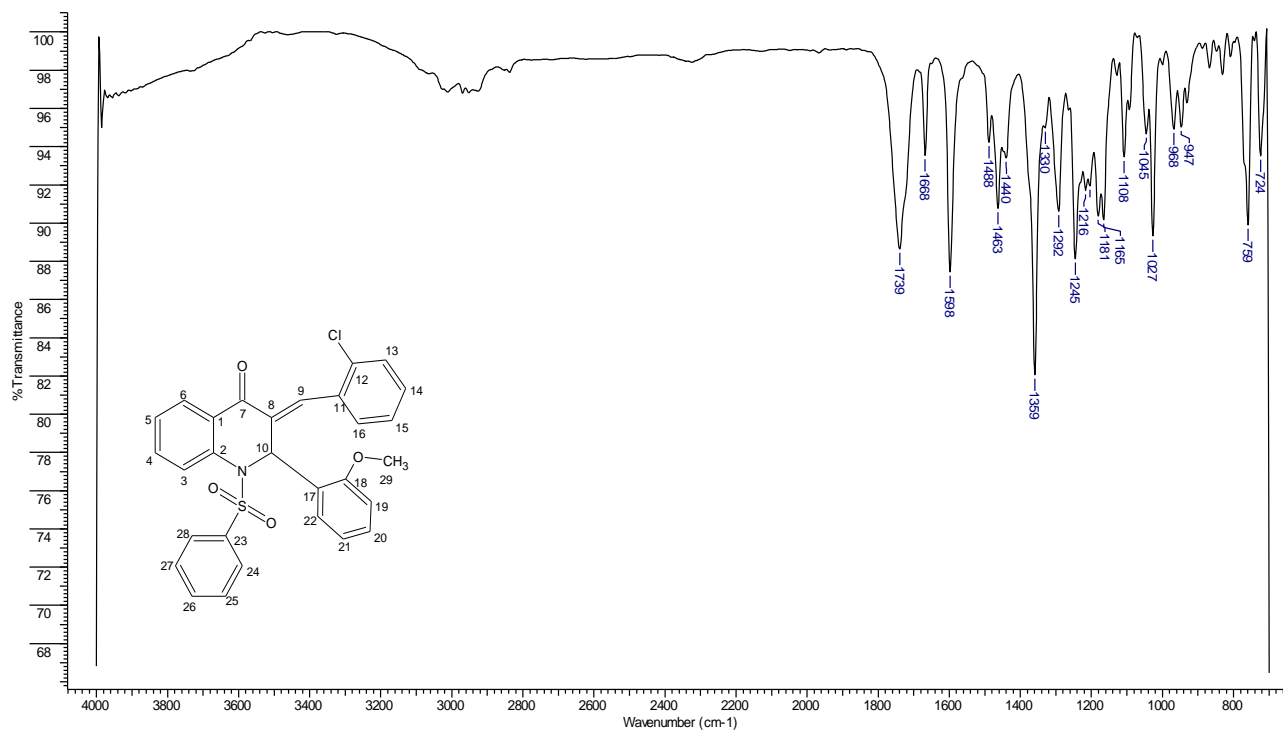


Figure S4. FTIR (KBr) spectrum of compound **6**.