Supplementary Material

One-pot synthesis of 5H-chromeno[3,4-b]pyrazin-5-one derivatives from 4-amino-3-nitrocoumarin and α-dicarbonyl compounds

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Table of Contents

1. 5H-Chromeno[3,4-b]-pyrazin-5-one (4a) S2
2. 2-Methyl-5H-chromeno[3,4-b]-pyrazin-5-one (4b) S4
3. Mixture of 3-methyl-5H-chromeno[3,4-b]-pyrazin-5-one (5b) and 4b S6
4. 2-Phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (4c) S8
5. 2-Phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (5c) S10
6. 2,3-Dimethyl-5H-chromeno[3,4-b]-pyrazin-5-one (4d) S12
7. 2,3-Diphenyl-5H-chromeno[3,4-b]-pyrazin-5-one (4e) S14
8. 3-Methyl-3-phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (4f) S16
9. 2-Methyl-3-phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (5f) S18
10. 3-Methyl-2-(4-nitrophenyl)-5H-chromeno[3,4-b]-pyrazin-5-one (4g) S20
11. 2-Methyl-3-(4-nitrophenyl)-5H-chromeno[3,4-b]-pyrazin-5-one (5g) S22
12. Chromeno[3,4-b]indeno[1,2-e]-pyrazin-6(8H)-one (4h) S24
13. Chromeno[3,4-b]indeno[2,1-e]pyrazin-6(12H)-one (5h) S26
5H-Chromeno[3,4-b]-pyrazin-5-one (4a)

$^1$H-NMR Spectrum of compound 4a.
$^{13}$C-NMR Spectrum of compound 4a.
2-Methyl-5H-chromeno[3,4-b]-pyrazin-5-one (4b)

$^1$H-NMR Spectrum of compound 4b.

$^{13}$C-NMR Spectrum of compound 4b
HMBC Spectrum of compound 4b.
Mixture of 3-methyl-5H-chromeno[3,4-b]pyrazin-5-one (5b) and 4b

$^1$H-NMR Spectrum of the mixture of compounds 4b and 5b.
\(^{13}\)C-NMR Spectrum of the mixture of compounds 4b and 5b.
2-Phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (4c)

$^1$H-NMR Spectrum of compound 4c.

Zoom of $^1$H-NMR Spectrum compound 4c.
13C-NMR Spectrum of compound 4c.

HMBC Spectrum of compound 4c.
2-Phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (5c)

$^1$H-NMR Spectrum of compound 5c.
$^{13}$C-NMR Spectrum of compound 5c.
2,3-Dimethyl-5H-chromeno[3,4-b]-pyrazin-5-one (4d)

$^1$H-NMR Spectrum of compound 4d.
$^{13}$C-NMR Spectrum of compound 4d.
2,3-Diphenyl-5H-chromeno[3,4-b]pyrazin-5-one (4e)

1H-NMR Spectrum of compound 4e.
$^{13}$C-NMR Spectrum of compound 4e.
3-Methyl-3-phenyl-5H-chromeno[3,4-b]pyrazin-5-one (4f)

$^1$H-NMR Spectrum of compound 4f.
$^{13}$C-NMR Spectrum of compound 4f.
2-Methyl-3-phenyl-5H-chromeno[3,4-b]-pyrazin-5-one (5f)

$^1$H-NMR Spectrum of compound 5f.

$^{13}$C-NMR Spectrum of compound 5f.
5f

HMBC Spectrum of compound 5f.
3-Methyl-2-(4-nitrophenyl)-5H-chromeno[3,4-b]-pyrazin-5-one (4g)

$^1$H-NMR Spectrum of compound 4g.

$^{13}$C-NMR Spectrum of compound 4g.
HMBC Spectrum of compound 4g.
2-Methyl-3-(4-nitrophenyl)-5H-chromeno[3,4-b]-pyrazin-5-one (5g)

$^1$H-NMR Spectrum of compound 5g.

$^{13}$C-NMR Spectrum of compound 5g.
HMBC Spectrum of compound 5g.
Chromeno[3,4-b]indeno[1,2-e]-pyrazin-6(8H)-one (4h)

$^1$H-NMR Spectrum of compound 4h.

$^{13}$C-NMR Spectrum of compound 4h.
HMBC Spectrum of compound 4h.
Chromeno[3,4-b]-indeno[2,1-e]pyrazin-6(12H)-one (5h)

$^1$H-NMR Spectrum of compound 5h.

$^{13}$C-NMR Spectrum of compound 5h.
HMBC Spectrum of compound 5h.