Supplementary Material

Microwave-promoted Heck and Suzuki coupling reactions of new 3-(5-bromobenzofuranyl)pyrazole in aqueous media

Kamal M. Dawood,* Ahmed F. Darweesh, Mohamed R. Shaaban and Ahmad M. Farag
Department of Chemistry, Faculty of Science, Cairo University, Giza 12613, Egypt

E-mail: dr_dawood@yahoo.com

Table of Contents

1. $^1$H NMR spectrum of compound 2 S2
2. $^{13}$C NMR spectrum of compound 2 S3
3. $^1$H NMR spectrum of compound 3 S4
4. $^{13}$C NMR spectrum of compound 3 S5
5. $^1$H NMR spectrum of compound 6 S6
6. $^{13}$C NMR spectrum of compound 6 S7
7. $^1$H NMR spectrum of compound 7 S8
8. $^{13}$C NMR spectrum of compound 7 S9
9. $^1$H NMR spectrum of compound 8 S10
10. $^{13}$C NMR spectrum of compound 8 S11
11. $^1$H NMR spectrum of compound 9 S12
12. $^{13}$C NMR spectrum of compound 9 S13
13. $^1$H NMR spectrum of compound 10 S14
14. $^{13}$C NMR spectrum of compound 10 S15
15. $^1$H NMR spectrum of compound 11 S16
16. $^{13}$C NMR spectrum of compound 11 S17
17. $^1$H NMR spectrum of compound 13 S18
18. $^{13}$C NMR spectrum of compound 13 S19
19. $^1$H NMR spectrum of compound 14 S20
20. $^{13}$C NMR spectrum of compound 14 S21
21. $^1$H NMR spectrum of compound 15 S22
22. $^{13}$C NMR spectrum of compound 15 S23
23. $^1$H NMR spectrum of compound 16 S24
24. $^{13}$C NMR spectrum of compound 16 S25
Ahmed-Arby-ARS-OGS-G13
Archive directory: /export/home/whrel3/vnmrsys/data
Sample directory: M06oik4-L-12C-AEC0_04June2004
File: CARBON

Pulse Sequence: s2pu1
Solv: DMSO
Temp: 30.0 C / 303.1 K
Molecule: 39000 MHz

Relay delay 1.000 sec
Pulse 60.0 degrees
Sample volume 2.5 ml
Width 10000 Hz
1000 repetitions

OBSERVE C13: 75.452591 MHz
DECOPLE: 142.9602413 MHz
Power 44 dB
continuously on
WALTZ-16 modulated
GATE PROCESSING
Line Broadening 1.0 Hz
P: 2.481510

Total time 54 hr, 19 min, 11 sec