

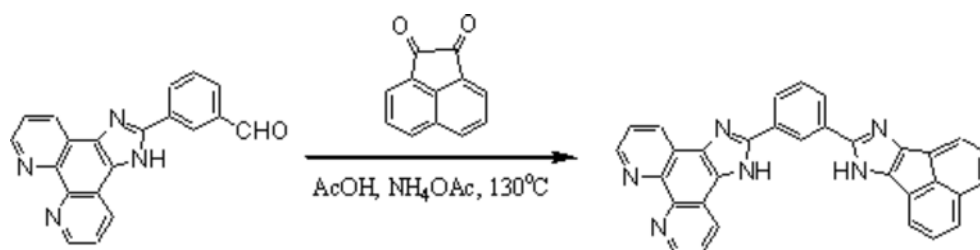
Molbank 2002, M283

www.molbank.org**1-(Phenanthrolo[5,6-d]imidazol-2-yl)-3-(acenaphthro[4,5-d]imidazol-2-yl)benzene****Hui Chao*, Cai-Wu Jiang, Hao Zhang and Liang-Nian Ji****

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Received: 2 April 2002 / Accepted: 16 May 2002 / Published: 20 February 2003

Keywords: polypyridine ligands, phenanthroline, acenaphthenequinone

2-(3-formylphenyl)imidazo[4,5-f][1,10]phenanthroline was prepared by a previously published method [1]. A mixture of 2-(3-formylphenyl)imidazo[4,5-f][1,10]phenanthroline (0.2 g, 0.62 mmol), acenaphthenequinone (0.124 g, 0.68 mmol), ammonium acetate (0.713 g, 9.3 mmol) and glacial acetic acid (10 cm³) was refluxed for about 3 h. The cooled solution was filtered and then poured into 100 cm³ ether. The crude product was collected and purified on alumina with ethanol-toluene (1:4 v/v) as eluent to give the title compound as a yellow powder. (0.159 g, yield: 52.7%).

¹H NMR (500 MHz, *d*₆-DMSO): 13.84 (br, 2H), 9.24 (s, 1H), 8.93 (d, 2H, *J* = 8), 8.91 (d, 2H, *J* = 7.5), 8.69 (d, 1H, *J* = 8), 8.39 (d, 1H, *J* = 8), 8.21 (d, 1H, *J* = 8), 7.85 (m, 2H), 7.78 (dd, 2H, *J* = 5), 7.73 (dd, 2H, *J* = 4), 7.68 (t, 1H, *J* = 8), 7.60 (t, 1H, *J* = 7).

¹³C NMR (125 MHz, *d*₆-DMSO): 150.2, 147.9, 143.7, 136.8, 135.7, 131.7, 131.2, 130.9, 129.9, 129.5, 129.1, 128.8, 128.1, 127.8, 126.6, 125.9, 125.4, 123.6, 123.0, 122.8, 119.5.

IR (KBr. cm⁻¹): 3392s, 1603s, 1593m, 1542m, 1474m, 1438m, 1402m, 1278s, 1202m, 1073m, 1015m, 806m, 777s, 739s, 678w, 624w,

UV-Vis (*l*, nm, in ethanol): 227, 290, 319.

FAB-MS ([*M*+1]⁺): 487.

Acknowledgement: Support for this research provided by the National Natural Science Foundation of China, the National Science Foundation of Guangdong Province and Research Fund of Royal Society of Chemistry U.K. is gratefully acknowledged.

References and Notes

1. Chao, H.; Ye, B.-H.; Li, H.; Li, R.-H.; Zhou, J.-Y.; Ji, L.-N. *Polyhedron* **2000**, *19*, 1975.

Sample availability: available from the authors

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