Synthesis of novel Schiff base N-[(E)-1-(1H-indole-3-yl)methylidene]-N-[4-(4-\{(E)-1-(1H-indol-3-yl)methylidene\}amino} phenoxy)phenyl] amine

A. A. Jarrahpour*, M. Zarei

Department of Chemistry, College of Sciences, Shiraz University, Shiraz 71454, Iran Tel. No. 0098 711 2284822, Fax: 0098 711 2280926, E-mail: aliasghar6683@yahoo.com, jarrah@chem.susc.ac.ir

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A mixture of 4,4'-diaminodiphenyl ether 1 (2.00 g, 10.00 mmol), indole-3-carboxaldehyde 2 (2.90 g, 20.00 mmol) in absolute ethanol (50.00 mL) was stirred at room temperature for 8 hours. Then the solvent was evaporated under reduced pressure to give the crude imine as a solid. The new Schiff base 3 was recrystallized from methanol (3.25 g, 71%).

m.p. 252-254 °C.

IR (KBr) (cm\(^{-1}\)): 1624 (C=N), 3424 (NH)

\(^1\)H-NMR (DMSO) (250 MHz)\(\delta\)(ppm): 7.05-7.99 (16H, m, 4Ph), 8.37 (2H, d, C=CH), 8.74 (2H, s, N=CH), 11.76 (2H, br, indole NH)

\(^{13}\)C-NMR (DMSO) (62.90 MHz)\(\delta\)(ppm): 112.3-137.5 (aromatic carbons), 148.98 (C=CHNH), 155.18 (C=N)

MS (m/z, %): 454 (M\(^+\), 9.10), 325 (InC=NpHOPhN, 40.00), 235 (InC=NPhO, 100.00), 117 (In, 20.00), 92 (PhO, 10.00), 90 (PhN, 8.30), 76 (PhH)
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Sample availability: Available from MDPI

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