

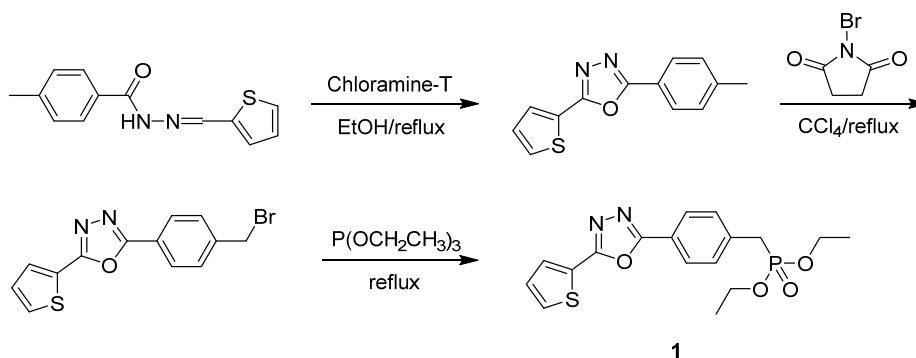
Article

Synthesis and Biological Evaluation of Dipeptide-Based Stilbene Derivatives Bearing a Biheterocyclic Moiety as Potential Fungicides

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Synthetic procedure and characterization data for intermediate 1.



Synthesis of intermediate 1. A mixture of benzyl bromide [1,2] (3.21 g, 10 mmol) and triethyl phosphite (30 mL) was heated under reflux for 5 h. The excess triethyl phosphite was evaporated under reduced pressure, and then filtered after addition of hexane. The residue was recrystallized from ethanol to afford compound **1**.

Diethyl (4-(5-(thiophen-2-yl)-1,3,4-oxadiazol-2-yl)benzyl)phosphonate (1). A light yellow solid, yield 72.3%; ^1H NMR (400 MHz, CDCl_3) δ 8.07 (d, J = 8.0 Hz, 2H), 7.84 (dd, J = 3.7, 1.2 Hz, 1H), 7.58 (dd, J = 5.0, 1.2 Hz, 1H), 7.48 (dd, J = 8.3, 2.5 Hz, 2H), 7.20 (dd, J = 5.0, 3.7 Hz, 1H), 4.05 (qd, J = 8.4, 7.7, 6.5 Hz, 4H), 3.23 (d, J = 22.1 Hz, 2H), 1.27 (t, J = 7.1 Hz, 6H); ^{13}C NMR (101 MHz, CDCl_3) δ 160.83, 136.07, 135.98, 130.55, 130.49, 130.17, 129.77, 128.19, 127.12, 127.08, 125.21, 62.37, 62.30, 34.71, 33.34, 16.43, 16.37.

References

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