

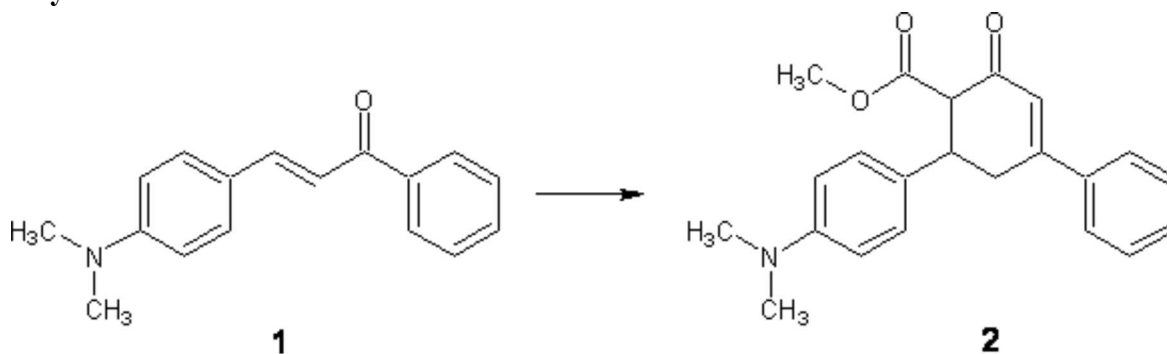
Synthesis of 6-carbomethoxy-3-Phenyl-5-(4-dimethylaminophenyl)-cyclohexenone

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A mixture of 4-dimethylaminochalcone **1** (0.25 g, 1.00 mmol), methyl acetoacetate (0.17 g, 1.5 mmol) in methanol (5.00 mL) and sodium metoxide (0.25 mg) was stirred at room temperature for 24 hour to give a yellow precipitate. Then it was filtered and washed with water. Recrystallized of the crude substance from methanol afforded pure cyclohexenone **2** (2.27 g, 97.00 %).

Melting point: 134-136 °C.

IR (KBr, cm^{-1}): 1740(CO); 1666 (CO).

^1H -NMR (CDCl_3 , 270 MHz): δ = 7.59 (d, 2H, J = 8.56 Hz), 7.33 (dd, 2H, J = 8.56, 8.56 Hz), 7.24 (dd, 2H, J = 8.50, 2.2 Hz) 6.58 (d, 1H J = 1.98 Hz), 6.60 (dd, 2H, J = 8.56, 8.56 Hz), 3.82 (dd, 1H, J = 5.4, 2.45 Hz), 3.58 (s, 3H, CO_2CH_3), 3.10 (dt, 1H, J = 12.5, 3.7, 1.98 Hz), 3.01 (d, 1H, J = 12.5 Hz), 2.98 (s, 6H, $(\text{CH}_3)_2\text{N}$).

^{13}C NMR (CDCl_3) (270 MHz) δ (ppm): 190.0 (C=O), 174.8 (COO), 141.3, 128.6, 127.2, 126.8, 111.9 (aromatic carbons), 149.6, 120.3, 59.2, 52.5, 44.5, 39.2, 31.5.

MS (m/z , %): 351($M + 1$, 10), 292 (351- CO_2CH_3 , 100).

Reference:

1. Rojas, José N. Domínguez, Jaime E. Charris, Gricela Lobo, Miguel Payá and M. Luisa Ferrándiz European Journal of Medicinal Chemistry, **2002**, 37, 699-.

Sample Availability: Available from MDPI.

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