Supporting Information

Facile Preparation and Reactivity of Polymer Supported N-(2-Iodyl-phenyl)-acylamide, an Efficient Oxidizing System

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General Information. All melting points were determined in an open capillary tube with a Mel-temp II[®] melting point apparatus and are uncorrected. Infrared spectra were recorded as a NaCl pellet on a Perkin-Elmer 1600 series FT-IR spectrophotometer; absorptions are reported in reciprocal centimeters. NMR spectra were recorded on a Varian^{UNITY} INOVA 300 MHz NMR spectrometer at 300 MHz (¹H NMR), and 75.5 MHz (¹³C NMR); chemical shifts are reported in parts per million (ppm). ¹H and ¹³C chemical shifts are referenced relative to the tetramethylsilane. GC-MS analysis was carried out with a HP 5890A Gas Chromatograph using a 5970 Series mass selective detector. Microanalysis was carried out by Atlantic Microlab, Inc., Norcross, Georgia.

Preparation of 4-(2-iodophenylcarbamoyl)butanoic acid 3. Solution of aniline **2** (10.000 g, 45.6 mmol) and glutaric anhydride (6.252 g, 54.8 mmol) in 200 mL of dry toluene was refluxed for 3 hours. Then the reaction mixture was cooled to 0°C on ice bath, and the precipitated crude amide **3** was filtered off. The crude product was recrystallized from MeCN (72 ml); initial solution cooled to rt and then in a freezer (-15°C). Precipitate was filtered off, washed with cold MeCN (2×10 mL) and dried in vacuum to give analytically pure compound **3** as an off-white solid (13.524 g, 89%). M.p. 149-150 °C. IR (NaCl): 3266, 1693, 1647, 1572, 1521, 1430, 1309, 1188, 905 cm⁻¹; ¹H NMR (300 MHz, CD₃OD): δ 7.88 (dd, ³J = 8.1 Hz, ⁴J = 0.9 Hz, 1H), 7.46 (dd, ³J = 8.1 Hz, ⁴J = 1.5 Hz, 1H), 7.37 (td, ³J = 7.9 Hz, ⁴J = 1.2 Hz, 1H), 6.99 (td, ³J = 8.0 Hz, ⁴J = 1.5 Hz, 1H), 2.47 (m, 4H), 2.02 (quintet, ³J = 7.2 Hz, 2H); ¹³C NMR (75.5 MHz, CD₃OD): δ 176.9, 174.3, 140.6, 130.1, 129.3, 128.7, 96.8, 36.5, 34.3, 22. Anal. calculated for C₁₁H₁₂INO₃: C, 39.66; H, 3.63; I, 38.10. Found: C, 39.75; H, 3.62; I, 38.09.