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Corrigendum

Corrigendum to "Copper(0) in the Ullmann heterocycle-aryl ether synthesis of 4-phenoxypyridine using multimode microwave heating" [Tetrahedron Lett. 51 (2010) 248]

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The author regrets that when this manuscript was published, Ref. 13 contained incorrect information. Please find the corrected reference below:

13. Copper(II) sulfate pentahydrate (0.250 g, 1 mmol) and 0.8 g of poly(*N*-vinylpyrrolidone) (PVP, *M*(average) = 40,000) were added to anhydrous ethylene glycol (120 ml) in a two-necked round-bottomed flask. The resulting mixture was heated to 80 °C and stirred for 2 h. Subsequently, the resulting blue solution was cooled to 0 °C and a solution of sodium hypophosphite monohydrate (0.213 g, 2 mmol) in H_2O (5 ml, millipore) was added promptly. After adjusting the pH value to 9–11 by adding 5 ml of 1 M NaOH (aq, millipore), the reaction mixture was stirred for 1 h at 140 °C to yield a brownish-red colloidal suspension. Aliquots of nanoparticle product were purified for analysis by extracting 50 ml of the suspension using excess acetone. After the sedimentation of the particles overnight, ca. 90% of the supernatant was decanted and the remaining suspension was centrifuged for 5 min. Upon removal of the acetone layer, the colloidal precipitate was resuspended in DMA or methanol (50 ml). Samples for electron microscopy were prepared by droplet coating of DMA/methanol suspensions on both Ti and carbon holey film-coated Ni grids and examined using a JEOL JEM-3011 high-resolution transmission electron microscope at nominal magnifications in the range 300,000–800,000. The exact magnification was previously characterized using images of lattice fringes in large (>10 nm) particles of colloidal gold. The electron optical parameters were C_S = 0.6 mm, C_C = 1.2 mm, electron energy spread = 1.5 eV and beam divergence semi-angle = 1 mrad. The mean particle size was calculated to be 9.6 ± 1.0 nm by counting the diameters of 100 particles in the lower magnification images. Data processing/calculation of standard deviation used Origin Pro. 8.0. Elemental composition was elucidated by energy dispersive X-ray emission spectroscopy (EDS, nominal beam width = 4 nm) using a PGT prism Si/Li detector and an Avalon 2000 analytical system. PXRD data were collected on a Roentgen PW3040/60 xpert PRO powder X-ray diffractometer with a high resolution PW3373/00 Cu LFF (unmonochromated) tube at λ = 1.5404 Å (Cu Kα). The powder sample was prepared by solvent evaporation from the colloidal suspensions deposited on the 0.5 mm deep ground area of a glass flatplate sample holder using a microscope slide so that the powder sample was smooth, flat, and flush with the sample holder surface. The sample holder was inserted onto the sample stage (PW3071/60 Bracket) such that the sample material was just free of the reference plane of the sample stage.

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