Copper nanoparticles of well-controlled size and shape: a new advance in synthesis and self-organization.

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All chemical products are used as received without further purification.

Synthesis of ClCu(PPh₃)₃

The synthesis is performed under air. A solution of 22.28 g of triphenylphosphine (PPh₃) in 380 mL of ethanol is slowly heated under stirring until the triphenylphosphine is dissolved. Then 2.68 g of copper chloride (II) is progressively added. The heterogeneous mixture is stirred during ten minutes and cooled to room temperature. Under filtration a white powder is obtained. This powder is washed several times with ethanol and diethylether. Then it is dried under vacuum and kept in a dark and dry atmosphere for future use.
Fig. S1. IR spectra of ClCu(PPh$_3$)$_3$
Fig. S2. a) and b) TEM images at different magnification of monolayers of 10.7 nm Cu NPs, formed at the ethylene glycol interface and transferred on a TEM grid, c) the Fourier transform of image in b).