Electronic supplementary material for the paper

Ultrafast mechanochemical synthesis of copper sulfides

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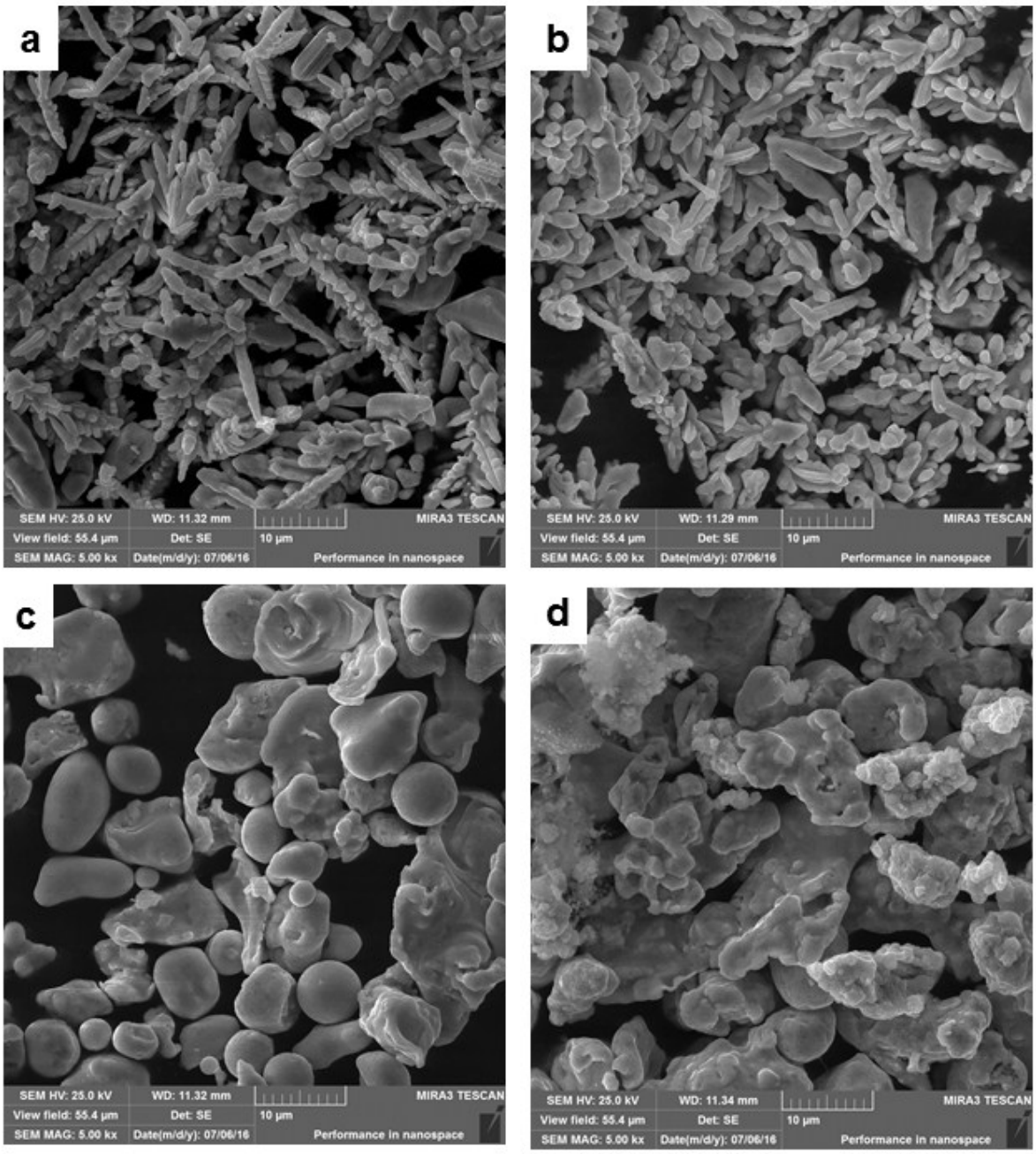

Fig. S1: Scanning electron micrographs of various types of copper: (a) electrolytic, Merck, Germany; (b) electrolytic, Pometon, Italy; (c) Billingham, United Kingdom; (d) atomized powder, Pometon, Italy.

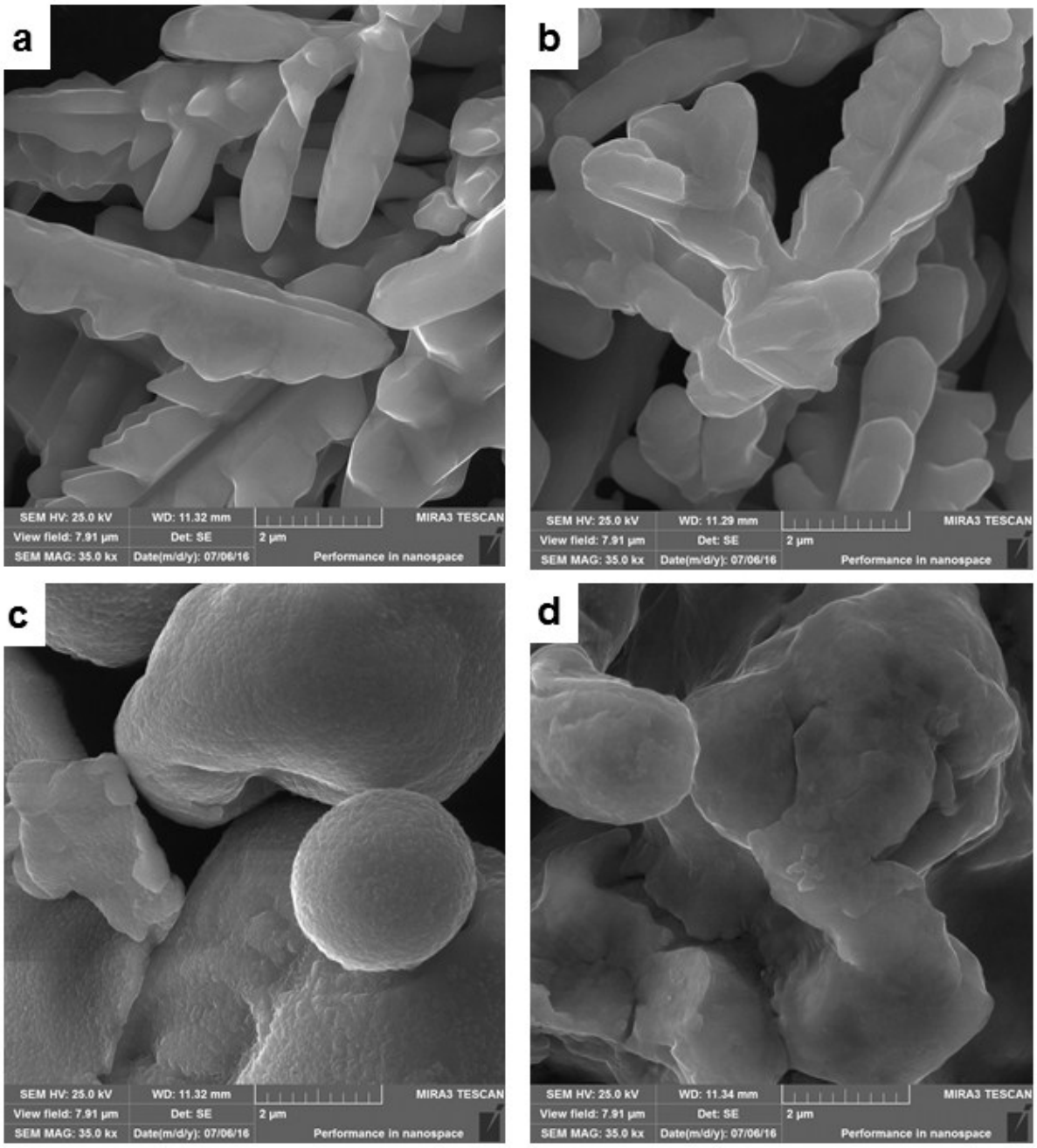

Fig. S2: Magnified scanning electron micrographs of various types of copper: (a) electrolytic, Merck, Germany; (b) electrolytic, Pometon, Italy; (c) Billingham, United Kingdom; (d) atomized powder, Pometon, Italy.

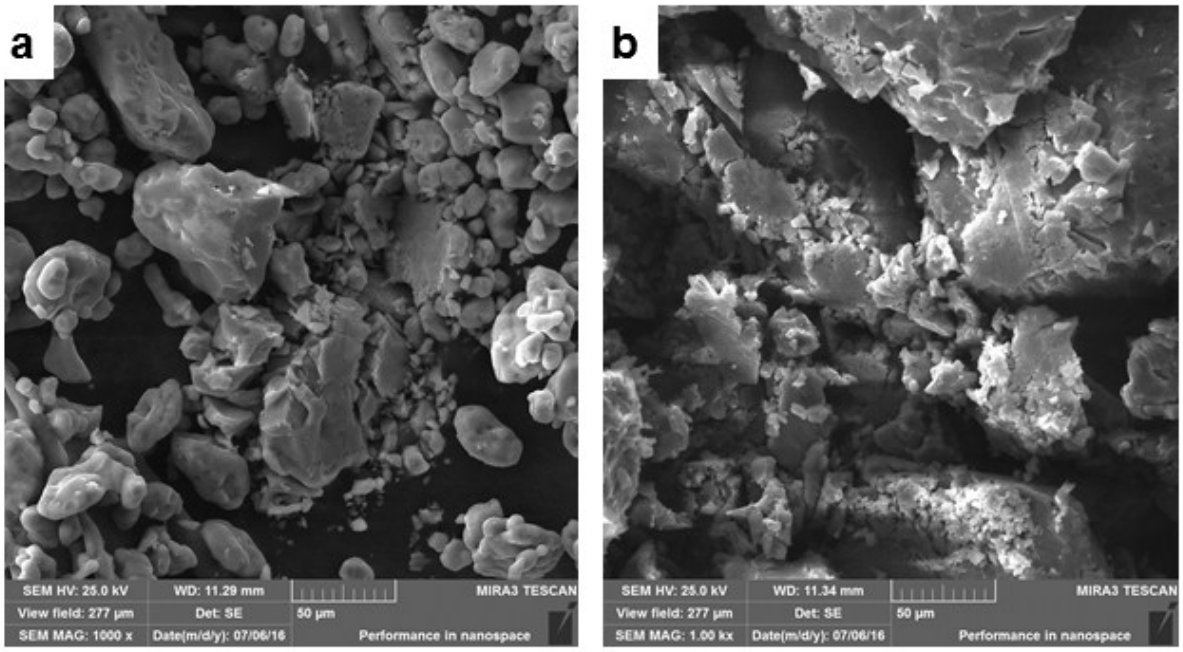

Fig. S3: Scanning electron micrographs of two types of sulfur: (a) CG-Chemikalien, Germany; (b) Pometon, Italy.

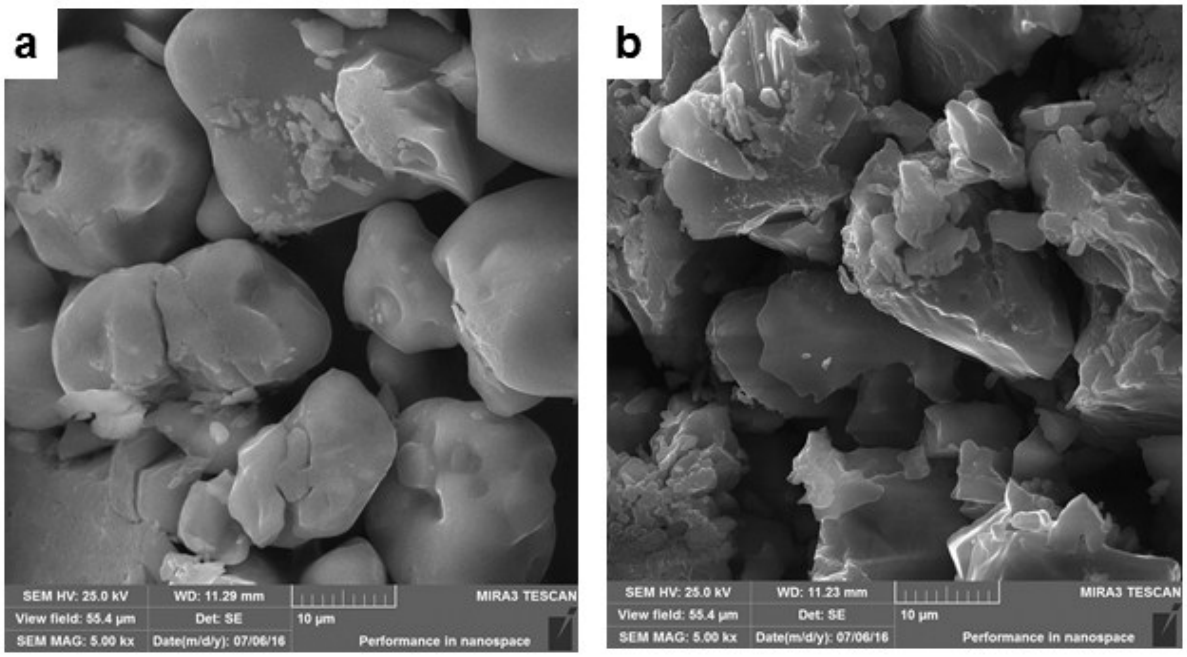

Fig. S4: Maginfied scanning electron micrographs of two types of sulfur: (a) CG-Chemikalien, Germany; (b) Pometon, Italy.

Table S1: Values of specific surface area for various types of copper.

Producer	**Way of preparation**	**S_A (m^2/g)**
Merck, Germany	electrolysis	0.2398
Pometon, Italy	electrolysis	0.3293
Johnson Matthey Process Technologies, United Kingdom	not available	0.0842
Pometon, Italy	atomized powder	0.1255

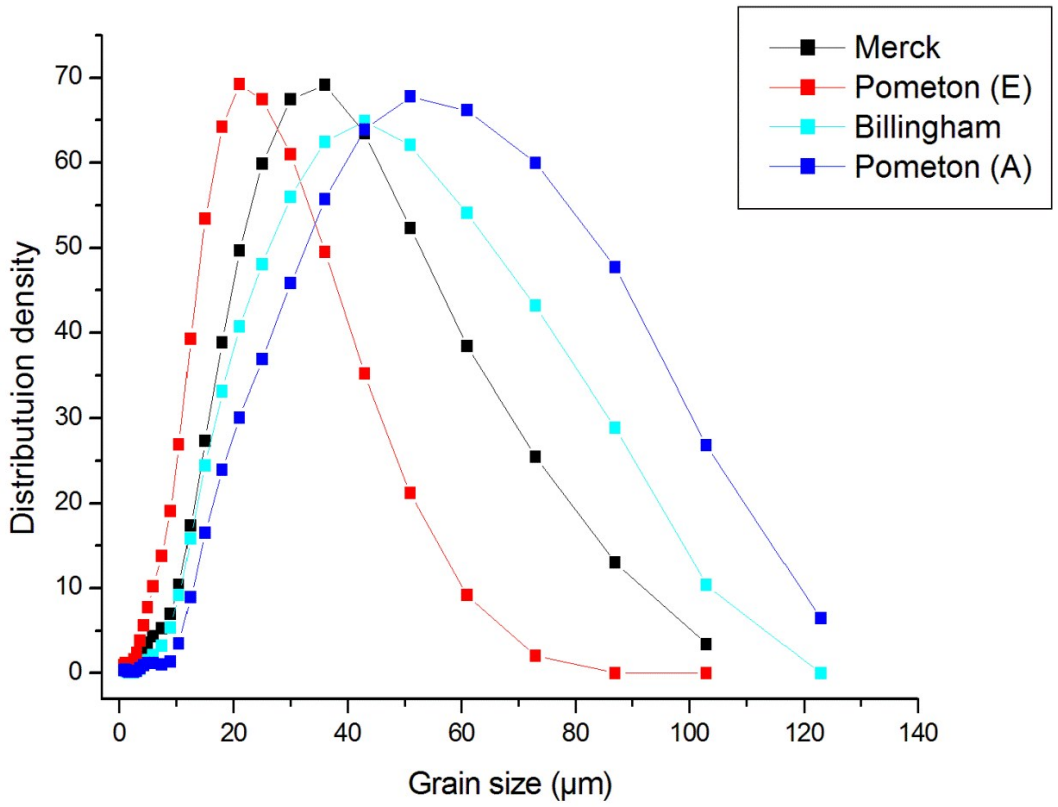

Fig. S5: Grain size analysis of various types of copper.

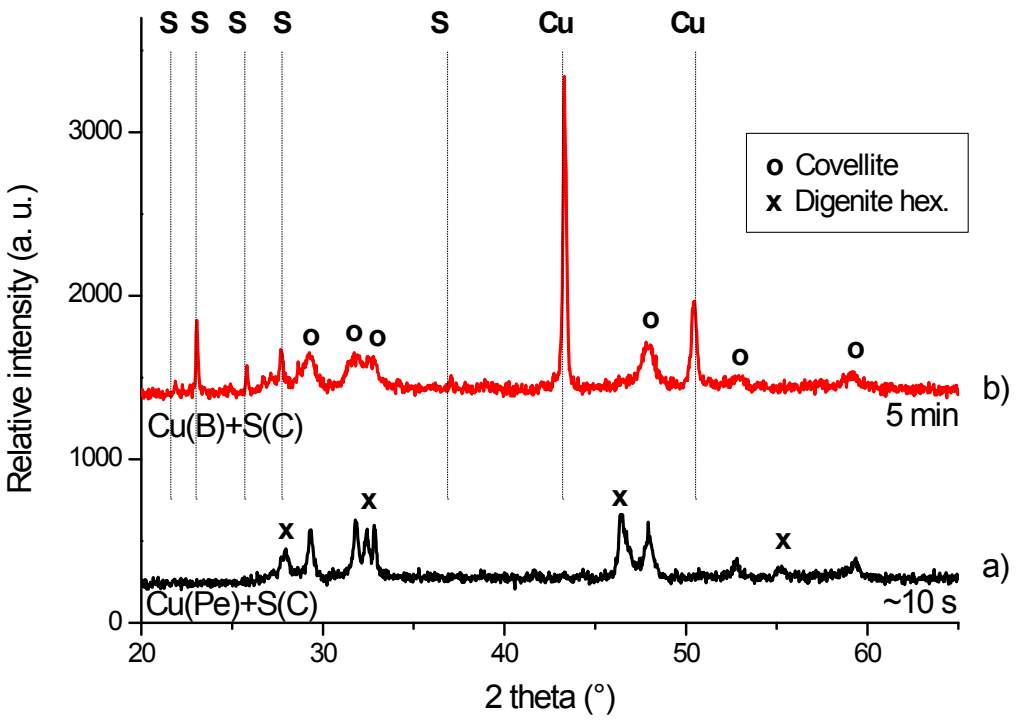

Fig. S6: XRD patterns of the Cu:S 1:1 mixtures using a different electrolytically (Pe) and non-electrolytically (B) prepared copper. Time of milling is given in figure.