

Supporting information for

Solvometallurgical Process for Recovery of Copper from Chrysocolla in Monoethanolamine

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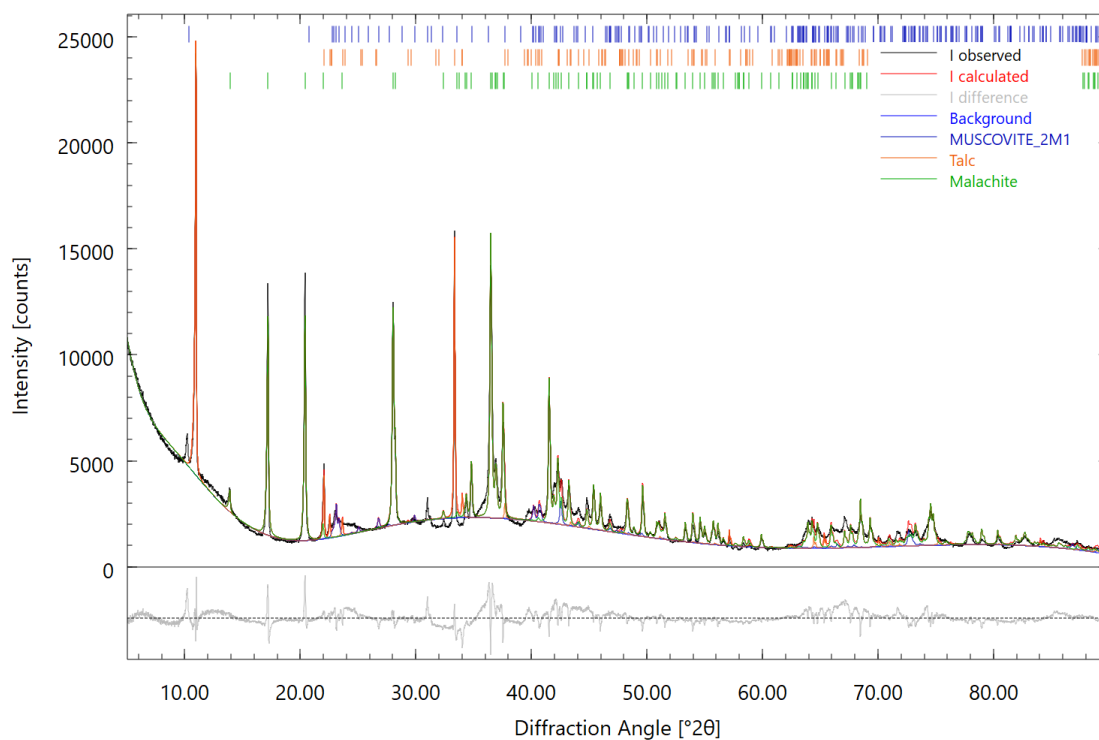


Figure S1 XRD diffractogram used for Rietveld analysis of the chrysocolla starting material.

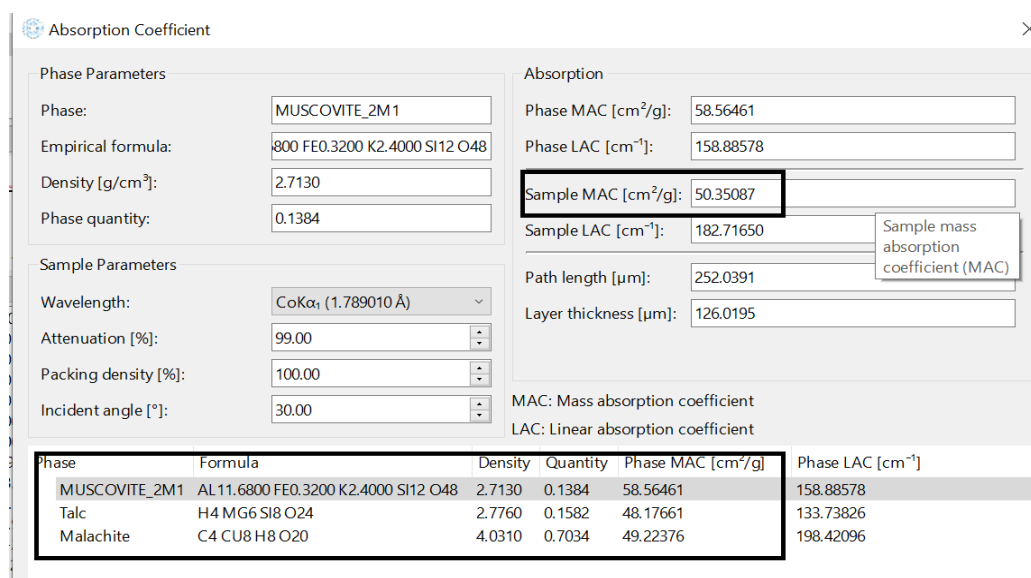


Figure S2 Print-screen of the Rietveld analysis settings for the chrysocolla starting material.

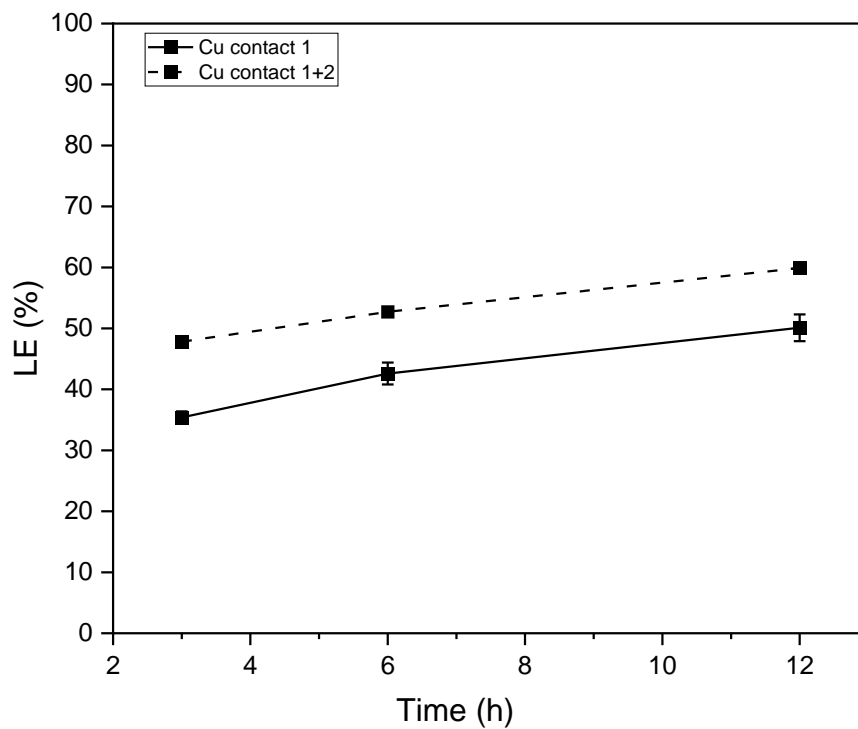


Figure S3 Leaching efficiencies (LE) of copper from the 1st and 2nd leaching contact in the MEA-NH₄Cl 3 M system as a function of the leaching time ($T \pm 25$ °C; S/L ratio 1/10; stirring speed 500 rpm).

Table S1 Rietveld analysis results obtained for the chrysocolla starting material.

Phases	% by XRD	GEWICHTα	Phase MAC	% k-factor corrected
Talc	15.8	0.0823424	48.18	4.801670253
Muscovite	13.8	0.0720717	58.56	4.202750199
Malachite	70.4	0.366203	49.22	21.35456401
Amorphous				69.64101553
Total	100		50.3446	cm ² /g
Sample MAC (XRF)	44.60636737	cm ² /g		

Table S2 XRF analysis of covellite (CuS) precipitate (obtained after precipitation by (NH₄)₂S solution)

Element	Concentration (wt%)
Pb	0.006
W	0.07
Cu	55.1
Co	0.07
Fe	0.06
Ca	0.13
Si	0.55
Cl	1.28
S	21.8