

Supplementary tables

Table A1 Initial loading of all runs

SNO	Qz	SiO ₂ (gel)	Cu ₂ O _(s)	CuCl _(s)	NaCl _(aq)	HCl _(l)	H ₂ O _(l)	Cu ⁺ / Cl ⁻ Min initial ratio
	10 ⁻³ g	10 ⁻³ g	10 ⁻³ g	10 ⁻³ g	10 ⁻³ g	10 ⁻³ g	10 ⁻³ g	
<i>±Cu ± Cu₂O + NaCl (Set 1)</i>								
DQ-22	48.79	2.41			25.07			
DQ-36	46.17				26.52			
DQ-21	47.50	1.73			24.49			
DQ-145	46.42	3.70			30.72			
DQ-146	38.85	2.38			30.16			
DQ-154	37.08	1.63			29.96			
DQ-183	33.56	2.34			31.21			
DQ-165	39.53	2.05			30.96			
DQ-23	46.91	2.22			27.56			
DQ-187	54.59	2.13	22.89		22.89			10.2
DQ-188	28.55	2.36	22.29		35.18			6.5
<i>Cu ± CuCl ± Cu₂O ± HCl (Set 2)</i>								
DQ-123	41.61	3.91				9.94	20.15	
DQ-42	58.93					24.10		
DQ-43	63.94	3.41				24.25		
DQ-169	62.50	3.25	3.67			28.51		1.2
DQ-102	34.82	2.20		3.13		15.50	14.59	0.6
DQ-47	52.44	2.58		4.37			30.43	1.0
<i>Additional experiments (Set 3)</i>								
DQ-37A	46.32						25.92	
DQ-37B							61.71	
DQ-37C							62.32	
DQ-99	16.07				30.69			
DQ-100	42.92	2.73			31.45			
DQ-101	41.87	2.44			26.24			

Note:

Stock solutions, such as NaCl_(aq), HCl_(l), are prepared prior to loading. Unless otherwise mentioned, H₂O has not been added in each capsule.

The ratio of Cu⁺/Cl⁻ denotes a minimum mole ratio between the initial Cu(I) minerals (CuCl, Cu₂O) and chloride content.

Table A2 EMP analyses of SMIs of DQ-21 (in wt%)

Sample	Na ₂ O	SiO ₂	Cl	Cu ₂ O	Total
Cuprite	4.77	24.04	0.17	65.28	94.67
Cuprite	0.72	12.75	0.01	88.76	102.6
SMI-1	1.98	78.48	0.32	8.94	90.51
SMI-2	4.54	61.74	0.31	2.79	71.1
SMI-2*	1.95	68.86	0.32	0.06	74.04
SMI-2*	5.09	75.4	0.92	0.25	84.15
SMI-2*	2.04	70.59	0.23	0.95	76.67
SMI-3	3.9	81.11	0.04	-0.45	88.4
SMI-3*	-0.02	81.79	0.01	0.13	82.09
SMI-4	2.07	65.4	0.35	-0.16	71.47
SMI-5	4.12	63.95	0.05	-0.03	75.5
SMI-5*	1.88	60.35	0.04	0	71.81
SMI-5*	4.19	70.16	0.02	0.34	79.08

Notes: Cuprite refers to analyses on the small crystals, SMI refers to measurements on glasses. A focused beam and a current of 15 nA were used for cuprite, a defocused beam with a size of 2 µm and a current of 5 nA were used for glasses. * indicates analyses on the same inclusion but at different locations.