

# **Arsenic in pyrite acts as a catalyst for dissolution-reprecipitation reaction and gold remobilisation – Revision 1**

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# Appendix 1. TEM-EDS analytical spots from Table A1

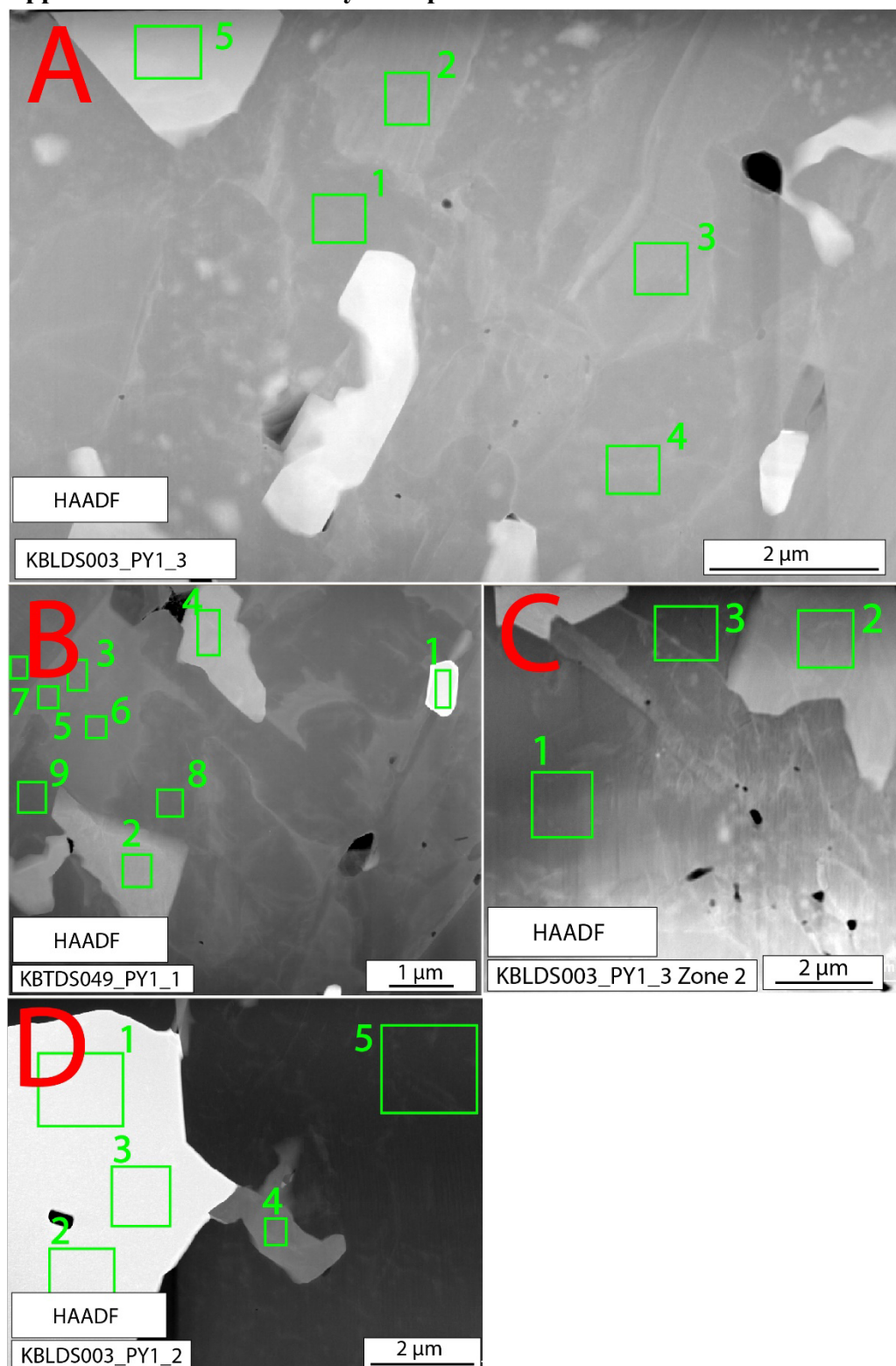


Figure A1. HAADF-STEM images in Py-1 mantle zone, with locations of STEM-EDS spot analyses given in Table A1. A). KBLDS003 PY1 3. B). KBTDS049 PY1 1 Zone 2. C). KBLDS003 PY1 3 Zone 2. D). KBLDS003 PY1 2.

Table A1. Chemical composition of gold, arsenopyrite and pyrite by STEM-EDS in mantle zone from Py-1 (point locations shown in Figure A1).

Sample (Figure A1 panel)	Point	Wt%					At%					Err (Wt%; 1 sigma)				
		S	Fe	As	Au	Ag	S	Fe	As	Au	Ag	S	Fe	As	Au	Ag
KBLDS003_PY1_3 (A)	1	51.33	47.13	0.64	0.91		65.13	34.34	0.35	0.19		1.61	1.49	0.09	0.16	
	2	49.54	44.95	4.46	1.05		63.98	33.33	2.46	0.22		1.56	1.44	0.25	0.19	
	3	49.09	46.82	3	1.09		63.39	34.72	1.66	0.23		1.54	1.48	0.18	0.18	
	4	50.61	47.47	0.76	1.15		64.57	34.78	0.41	0.24		1.58	1.5	0.09	0.19	
	5	20.01	35.84	42.88	1.27		33.83	34.79	31.03	0.35		0.66	1.14	1.38	0.19	
KBLDS049_PY1_1 (B)	1				88.99	11.01				81.6	18.4				17.8	1.17
	2	19.14	37.12	43.74			32.35	36.02	31.64			0.61	1.15	4.41		
	3	45.92	45.91	7.02	1.15		60.85	34.92	3.98	0.25		1.42	1.42	0.74	0.26	
	4	19.64	37.38	42.2	0.79		33.12	36.2	30.46	0.22		0.62	1.16	4.25	0.18	
	5	47.33	43.8	7.46	1.41		62.36	33.14	4.21	0.3		1.46	1.36	0.28	0.19	
	6	47.93	44.29	6.22	1.56		62.84	33.34	3.49	0.33		1.49	1.38	0.26	0.21	
	7	50.35	45.88	2.81	0.96		64.51	33.75	1.54	0.2		1.56	1.43	0.15	0.15	
	8	52.4	46.26	0.59	0.75		66.05	33.48	0.32	0.15		1.62	1.44	0.07	0.13	
	9	52.3	45.58	1.14	0.2		66.1	33.08	0.62	0.2		1.61	1.42	0.09	0.07	
KBLDS003_PY1_3_Zone2 (C)	1	50.46	43.12	5.39	1.03		64.94	31.87	2.97	0.22		1.34	1.56	0.22	0.15	
	2	53.6	45.2	0.46	0.74		67.11	32.49	0.25	0.15		1.65	1.4	0.06	0.12	
	3	21.52	33.74	43.92	0.82		35.97	32.38	31.42	0.13		0.69	1.06	1.38	0.13	
KBLDS003_PY1_2 (D)	1				92.79	7.21				87.6	12.4				9.31	0.75
	2				91.23	8.77				85.1	14.9				9.16	0.92
	3				91.54	8.46				85.6	14.4				9.19	0.88
	4	19.82	33.78	44.55	1.85		33.83	33.11	32.55	0.51		0.7	1.13	1.53	0.29	
	5	52.59	46.07	0.52	0.82		66.23	33.32	0.28	0.17		1.61	1.42	0.06	0.12	