Helium pycnometry

	Sample	Comment	Geometrical volume (cm3)	Mass (g)	Bulk density (g/cm3)	grain volume (cm3)	stdev. grain volume (cm3)	grain density (g/cm3)	stdev. grain density (g/cm3)	Porosity (vol%)	stdev. Porosity (vol%)
	B #1		4.48	11.97	2.67	4.32	0.00	2.77	0.00	3.65	0.00
	B #2		4.17	11.20	2.69	4.05	0.00	2.77	0.00	2.96	0.00
total of layers	*B total*		8.65	23.16	2.68	8.37	0.00	2.77	0.00	3.32	0.00
average separate layers	*B*		4.33	11.58	2.68	4.18	0.00	2.77	0.00	3.31	0.00
	C #1		4.88	12.59	2.58	4.55	0.00	2.76	0.00	6.65	0.00
	C #2		4.86	12.39	2.55	4.48	0.01	2.77	0.00	7.82	0.00
total of layers	*C total*		9.74	24.98	2.56	9.05	0.00	2.76	0.00	7.03	0.00
average separate layers	*C*		4.87	12.49	2.56	4.52	0.01	2.76	0.00	7.24	0.00
	D #1		13.81	37.75	2.73	13.72	0.01	2.75	0.00	0.67	0.00
	D #2		12.38	33.75	2.73	12.30	0.01	2.74	0.00	0.65	0.00
average separate layers	*D*		13.10	35.75	2.73	13.01	0.01	2.75	0.00	0.66	0.00
	E #1		3.99	10.78	2.70	3.90	0.00	2.77	0.00	2.27	0.00
	E #2		5.09	13.72	2.69	4.95	0.00	2.77	0.00	2.85	0.00
total of layers	*E total*		9.08	24.50	2.70	8.83	0.00	2.78	0.00	2.77	0.00
average separate layers	*E*		4.54	12.25	2.70	4.42	0.00	2.77	0.00	2.56	0.00
	F #1		10.24	27.04	2.64	10.02	0.00	2.70	0.00	2.11	0.00
	F #2		9.54	25.38	2.66	9.43	0.00	2.69	0.00	1.13	0.00
average separate layers	*F*		9.89	26.21	2.65	9.73	0.00	2.69	0.00	1.62	0.00
	G #1	<10% chamber fill	3.45	9.22	2.67	3.33	0.00	2.77	0.00	3.51	0.00
	G #2	<10% chamber fill	2.30	6.17	2.68	2.24	0.00	2.76	0.00	2.98	0.00
	G #3	<10% chamber fill	1.43	3.80	2.67	1.38	0.00	2.75	0.00	3.15	0.01
	G #4	<10% chamber fill	1.47	3.93	2.67	1.42	0.00	2.76	0.00	3.20	0.01
	G #5	<10% chamber fill	1.62	4.20	2.59	1.52	0.00	2.76	0.00	5.99	0.01
	G #5	duplo measurement	1.62	4.19	2.59	1.52	0.00	2.76	0.00	6.06	0.01
	G #6	<10% chamber fill	1.48	3.91	2.65	1.42	0.00	2.75	0.00	3.73	0.01

	G #7	<10% chamber fill	0.94	2.46	2.62	0.90	0.00	2.75	0.00	4.57	0.01
total of layers	*G total*		12.68	33.69	2.66	12.15	0.00	2.77	0.00	4.23	0.00
average separate layers	*G*		1.81	4.81	2.65	1.74	0.00	2.76	0.00	4.15	0.01
	G1 #A	<10% chamber fill	1.39	3.65	2.62	1.32	0.00	2.76	0.00	5.18	0.01
	G1 #B	<10% chamber fill	2.85	7.72	2.71	2.81	0.00	2.75	0.00	1.42	0.01
	G1 #C	<10% chamber fill	1.14	3.03	2.65	1.10	0.00	2.76	0.00	3.80	0.00
total of layers	*G1 total*	<10% chamber fill	5.39	14.41	2.67	5.23	0.00	2.76	0.00	3.04	0.00
average separate layers	*G1*	<10% chamber fill	1.80	4.80	2.66	1.74	0.00	2.76	0.00	3.47	0.01
	G2 #A	<10% chamber fill	1.00	2.66	2.67	0.97	0.00	2.75	0.01	2.79	0.01
	G2 #B	<10% chamber fill	0.65	1.70	2.60	0.62	0.00	2.74	0.00	5.16	0.02
	G2 #C	<10% chamber fill	2.20	5.89	2.68	2.15	0.00	2.75	0.00	2.24	0.00
	G2 #D	<10% chamber fill	0.39	0.99	2.57	0.36	0.00	2.74	0.01	6.29	0.03
	G2 #E	<10% chamber fill	0.83	2.19	2.65	0.79	0.00	2.76	0.01	4.14	0.01
total of layers	*G2 total*		5.06	13.43	2.66	4.87	0.00	2.76	0.00	3.62	0.00
average separate layers	*G2*		1.01	2.69	2.63	0.98	0.00	2.75	0.00	4.12	0.01
	H #1		7.34	19.54	2.66	7.14	0.00	2.74	0.00	2.74	0.00
	H #2		5.93	15.91	2.68	5.82	0.00	2.73	0.00	1.81	0.00
total of layers	*H total*		13.27	35.45	2.67	12.96	0.00	2.74	0.00	2.40	0.00
average separate layers	*H*		6.64	17.73	2.67	6.48	0.00	2.73	0.00	2.28	0.00

Table S1. Overview of all He-pycnometry data.

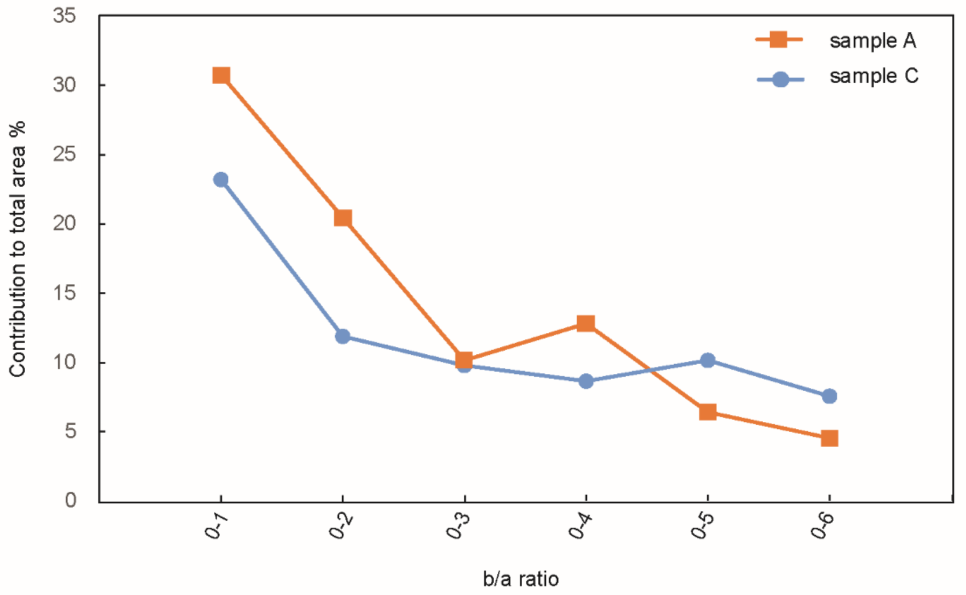

Figure S1. Plot of minor/major axis (b/a ratio) vs. the area % shows that fractures are defined from a ratio of <0.3. To be sure that all pores are microfractures a ratio of <0.2 is chosen.

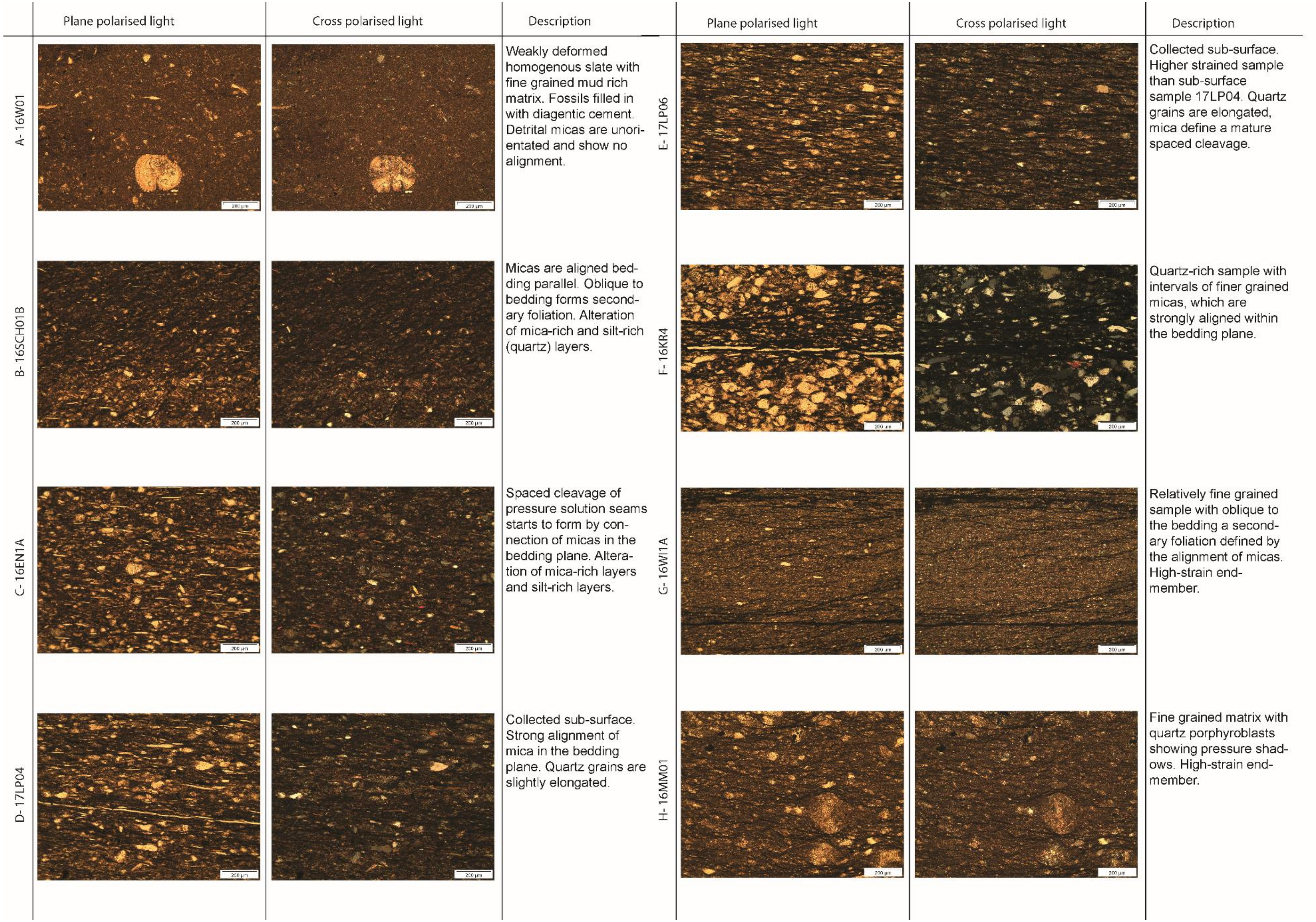

Figure S2. Photomicrographs from thin sections in both plane and cross-polarised light give an overview of microstructures from all used samples in this study.

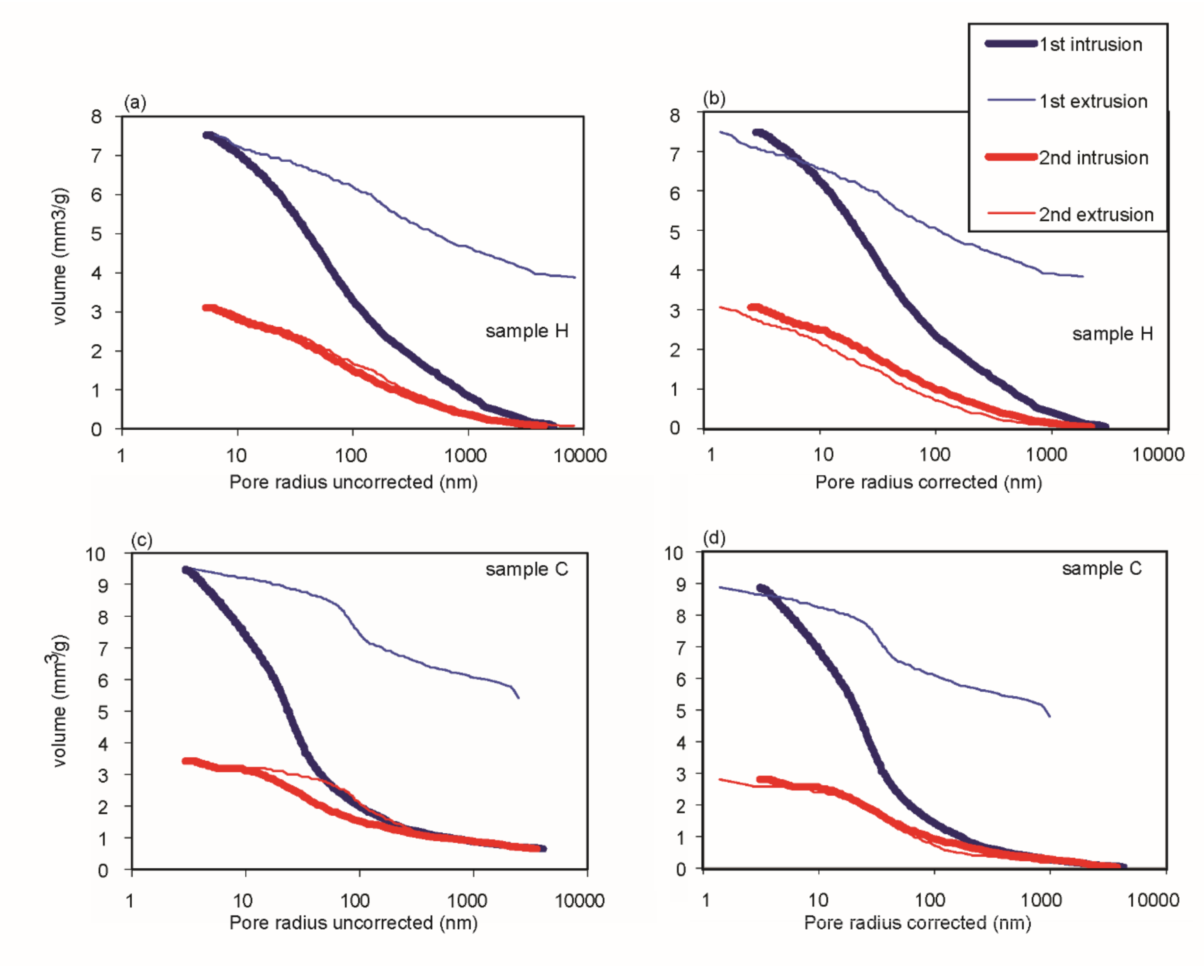

Figure S3. Mercury Intrusion Porosimetry data showing 1st and 2nd intrusion and extrusion curve uncorrected and corrected for the contact angle in the extrusion data. a-b) sample H shows that in the corrected data the hysteresis between the 2nd intrusion and extrusion cycle slightly increases. c-d) sample C shows that in the corrected data the hysteresis between the 2nd intrusion and extrusion cycle reduces.