



Supplement of

Using internal standards in time-resolved X-ray micro-computed tomography to quantify grain-scale developments in solid-state mineral reactions

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Table S1

Evaluation Metrics	Average						Gypsum						Bassanite					
	Model A	Model B	Model C	Model D	Model E	Model RF	Model A	Model B	Model C	Model D	Model E	Model RF	Model A	Model B	Model C	Model D	Model E	Model RF
	Patch=16 Stride=1 Batch=64	Patch=16 Stride=0.5 Batch=128	Patch=16 Stride=1 Batch=128	Patch=16 Stride=1 Batch=128 Data Aug.	Patch=16 Stride=1 Batch=64 Data Aug.	Patch=16 Stride=1 Batch=512 Data Aug.	Patch=16 Stride=1 Batch=64	Patch=16 Stride=0.5 Batch=128	Patch=16 Stride=1 Batch=128	Patch=16 Stride=1 Batch=128 Data Aug.	Patch=16 Stride=1 Batch=64 Data Aug.	Patch=16 Stride=1 Batch=512 Data Aug.	Patch=16 Stride=1 Batch=64	Patch=16 Stride=0.5 Batch=128	Patch=16 Stride=1 Batch=128	Patch=16 Stride=1 Batch=128 Data Aug.	Patch=16 Stride=1 Batch=64 Data Aug.	Patch=16 Stride=1 Batch=512 Data Aug.
RECALL	0.0130	0.0210	0.095	0.0882	0.966	0.961	0.034	0.338	0.642	0.390	0.996	0.990	0.000	0.000	0.046	0.000	0.790	0.990
SPECIFICITY	0.6715	0.6907	0.699	0.6964	0.987	0.987	0.881	0.117	0.999	1.000	0.863	0.929	0.668	0.801	0.393	0.990	0.989	0.929
ACCURACY	0.5076	0.5240	0.548	0.5451	0.982	0.981	0.778	0.129	0.998	0.998	0.971	0.971	0.124	0.148	0.110	0.183	0.965	0.971
DICE	0.0130	0.0214	0.095	0.0880	0.964	0.961	0.035	0.041	0.651	0.546	0.983	0.979	0.001	0.000	0.077	0.000	0.845	0.979
IoU	0.0065	0.0108	0.050	0.0460	0.931	0.925	0.018	0.021	0.483	0.375	0.966	0.958	0.000	0.000	0.040	0.000	0.731	0.958
VOLUMETRIC SIMILARITY	0.9977	0.9768	0.998	0.9977	0.998	1.000	0.943	0.122	0.985	0.599	0.987	0.988	0.140	0.086	0.310	0.005	0.931	0.988
AUC	0.3422	0.3558	0.397	0.3923	0.977	0.974	0.457	0.228	0.820	0.695	0.930	0.960	0.334	0.401	0.219	0.495	0.890	0.960
KAPPA	-0.3150	-0.2928	-0.206	-0.2150	0.952	0.948	-0.090	-0.070	0.650	0.545	0.901	0.932	-0.129	-0.075	-0.234	-0.004	0.825	0.932
Evaluation Metrics	Pores						Celestite											
	Model A	Model B	Model C	Model D	Model E	Model RF	Model A	Model B	Model C	Model D	Model E	Model RF						
	Patch=16 Stride=1	Patch=16 Stride=0.5	Patch=16 Stride=1	Patch=16 Stride=1	Patch=16 Stride=1	Patch=16 Stride=1	Patch=16 Stride=1	Patch=16 Stride=0.5	Patch=16 Stride=1	Patch=16 Stride=1	Patch=16 Stride=1	Patch=16 Stride=1						
RECALL	0.155	0.018	1.000	0.712	0.968	0.895	0.000	0.000	0.000	0.000	0.000	0.705						
SPECIFICITY	0.131	0.933	0.161	0.004	0.997	0.994	1.000	1.000	1.000	0.963	1.000	1.000						
ACCURACY	0.132	0.822	0.208	0.090	0.995	0.983	0.997	0.997	0.878	0.910	0.997	0.999						
DICE	0.019	0.024	0.122	0.160	0.957	0.924	0.000	0.000	0.000	0.000	0.000	0.827						
IoU	0.010	0.012	0.065	0.087	0.918	0.858	0.000	0.000	0.000	0.000	0.000	0.705						
VOLUMETRIC SIMILARITY	0.125	0.665	0.122	0.225	0.989	0.968	0.000	0.000	0.000	0.777	0.000	0.827						
AUC	0.143	0.476	0.581	0.358	0.982	0.945	0.500	0.500	0.500	0.481	0.500	0.852						
KAPPA	-0.094	-0.062	0.021	-0.071	0.955	0.914	0.000	0.000	0.000	-0.045	0.000	0.826						