

Supplement of Solid Earth, 11, 1079–1095, 2020
<https://doi.org/10.5194/se-11-1079-2020-supplement>
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Supplement of

Combined numerical and experimental study of microstructure and permeability in porous granular media

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Table 1: Table presenting all computed parameters for each subsample of full sample 02.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex02Sub01	260	300	250	512x512x512	0.2058	0.2058	0.0027	0.0027	2.7974	1.3285×10^{-10}
Ex02Sub02	500	300	250	512x512x512	0.2244	0.2244	0.0026	0.0026	2.7637	2.3722×10^{-10}
Ex02Sub03	260	480	250	512x512x512	0.2196	0.2196	0.0027	0.0027	2.7806	1.5939×10^{-10}
Ex02Sub04	500	480	250	512x512x512	0.2229	0.2229	0.0027	0.0027	2.9140	1.6083×10^{-10}
Ex02Sub05	260	300	492	512x512x512	0.1925	0.1924	0.0025	0.0025	2.7807	1.4017×10^{-10}
Ex02Sub06	500	300	492	512x512x512	0.1954	0.1953	0.0024	0.0024	2.7434	1.6425×10^{-10}
Ex02Sub07	260	480	492	512x512x512	0.2108	0.2108	0.0025	0.0025	2.9747	1.6320×10^{-10}
Ex02Sub08	500	480	492	512x512x512	0.1911	0.1910	0.0024	0.0024	2.7406	1.4882×10^{-10}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 2: Table presenting all computed parameters for each subsample of full sample 11. Empty cells denote subsample without interconnected pathways.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex11Sub01	280	190	200	512x512x512	0.041458	0.03268	0.001167	0.000886	2.7716	2.2256×10^{-13}
Ex11Sub02	470	190	200	512x512x512	0.071224	0.06746	0.001179	0.000997	2.1095	4.3785×10^{-10}
Ex11Sub03	280	450	200	512x512x512	-	-	-	-	-	-
Ex11Sub04	470	450	200	512x512x512	0.037491	0.020753	0.001150	0.000604	2.5783	2.2256×10^{-13}
Ex11Sub05	280	190	438	512x512x512	0.045670	0.035713	0.001211	0.00950	3.5928	4.3251×10^{-13}
Ex11Sub06	470	190	438	512x512x512	0.054834	0.05215	0.001183	0.001044	2.1776	1.1288×10^{-11}
Ex11Sub07	280	450	438	512x512x512	0.040818	0.023252	0.001130	0.000612	3.0747	1.0000×10^{-13}
Ex11Sub08	470	450	438	512x512x512	0.038262	0.03304	0.001107	0.00858	3.0947	3.0000×10^{-13}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 3: Table presenting all computed parameters for each subsample of full sample 14.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex14Sub01	200	200	200	512x512x512	0.1542	0.1540	0.0034	0.0034	2.7813	$1.0111990 \times 10^{-10}$
Ex14Sub02	200	200	200	512x512x512	0.1571	0.1571	0.0034	0.0034	2.7612	$1.0443840 \times 10^{-10}$
Ex14Sub03	200	200	200	512x512x512	0.1448	0.1447	0.0034	0.0034	2.8081	$6.4047690 \times 10^{-11}$
Ex14Sub04	200	200	200	512x512x512	0.1486	0.1470	0.0034	0.0034	2.9281	$5.9222040 \times 10^{-11}$
Ex14Sub05	200	200	200	512x512x512	0.1029	0.1001	0.0027	0.0025	2.8168	$4.1996600 \times 10^{-12}$
Ex14Sub06	200	200	200	512x512x512	0.1194	0.1131	0.0027	0.0025	2.8374	$7.6716540 \times 10^{-12}$
Ex14Sub07	200	200	200	512x512x512	0.1065	0.1059	0.0027	0.0027	3.6978	$9.6691650 \times 10^{-12}$
Ex14Sub08	200	200	200	512x512x512	0.1191	0.1188	0.0029	0.0028	3.9223	$9.4282180 \times 10^{-12}$

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 4: Table presenting all computed parameters for each subsample of full sample 15. Empty cells denote subsamples without interconnected pathways.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex15Sub01	210	200	200	512x512x512	0.023587	0.012874	0.000814	0.000392	2.9814	3.9788×10^{-13}
Ex15Sub02	390	200	200	512x512x512	0.023149	0.018063	0.000833	0.000584	3.0012	8.3110×10^{-13}
Ex15Sub03	210	450	200	512x512x512	-	-	-	-	-	-
Ex15Sub04	390	450	200	512x512x512	0.024866	0.007898	0.000797	0.000264	3.4385	5.4179×10^{-13}
Ex15Sub05	210	200	438	512x512x512	0.025917	0.011987	0.000836	0.000326	2.6455	4.7369×10^{-13}
Ex15Sub06	390	200	438	512x512x512	0.023433	0.007965	0.000850	0.000242	2.6323	6.1786×10^{-13}
Ex15Sub07	210	450	438	512x512x512	-	-	-	-	-	-
Ex15Sub08	390	450	438	512x512x512	-	-	-	-	-	-

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 5: Table presenting all computed parameters for each subsample of full sample 16.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex16Sub01	250	200	200	512x512x512	0.04444	0.035153	0.001122	0.000877	3.1145	6.0323×10^{-13}
Ex16Sub02	460	200	200	512x512x512	0.047556	0.038212	0.001159	0.000875	2.9813	1.0871×10^{-13}
Ex16Sub03	250	500	200	512x512x512	0.038939	0.030048	0.001068	0.00826	3.2202	9.1519×10^{-13}
Ex16Sub04	460	500	200	512x512x512	0.048469	0.043199	0.001210	0.001048	2.9144	1.6762×10^{-12}
Ex16Sub05	250	200	338	512x512x512	0.044808	0.039079	0.001031	0.000857	3.0482	4.5359×10^{-13}
Ex16Sub06	460	200	338	512x512x512	0.045129	0.037607	0.001088	0.000867	3.1044	8.8232×10^{-13}
Ex16Sub07	250	500	338	512x512x512	0.036912	0.02939	0.001005	0.0000793	3.0625	8.6359×10^{-13}
Ex16Sub08	460	500	338	512x512x512	0.044741	0.03507	0.001138	0.00883	2.8814	1.0756×10^{-12}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 6: Table presenting all computed parameters for each subsample of full sample 17.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex17Sub01	220	190	130	512x512x384 ^a	0.1290	0.128185	0.001997	0.001972	3.3537	3.3763×10^{-11}
Ex17Sub02	460	190	130	512x512x384 ^a	0.131047	0.13049	0.002044	0.002025	3.2969	2.5265×10^{-11}
Ex17Sub03	220	490	130	512x512x384 ^a	0.123565	0.123132	0.001996	0.001982	3.3160	3.2781×10^{-11}
Ex17Sub04	460	490	130	512x512x384 ^a	0.125292	0.12505	0.001990	0.001979	3.1973	2.4791×10^{-11}
Ex17Sub05	220	190	196	512x512x384 ^a	0.133309	0.132519	0.002042	0.002025	3.1319	4.2441×10^{-11}
Ex17Sub06	460	190	196	512x512x384 ^a	0.138704	0.138543	0.002081	0.002071	3.2603	3.5374×10^{-11}
Ex17Sub07	220	490	196	512x512x384 ^a	0.12386	0.123625	0.002013	0.002005	3.2825	3.0172×10^{-11}
Ex17Sub08	460	490	196	512x512x384 ^a	0.127575	0.127238	0.002012	0.002003	3.1150	2.7717×10^{-11}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

^aIt should be noted that the employed micro-CT scanner only provides a fixed amount of pixels in the vertical direction, thus for larger samples the resolution in vertical direction decreases. For this reason the resolution in z-direction of sample 17 is restricted to 384 pixels.

Table 7: Table presenting all computed parameters for each subsample of full sample 29.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex29Sub01	250	270	300	512x512x512	0.079443	0.079136	0.001746	0.001726	3.0436	6.9842×10^{-12}
Ex29Sub02	550	270	300	512x512x512	0.094175	0.091719	0.001863	0.001831	2.7007	1.500×10^{-11}
Ex29Sub03	250	560	300	512x512x512	0.097119	0.096135	0.001830	0.001806	2.9604	2.3861×10^{-12}
Ex29Sub04	550	560	300	512x512x512	0.084301	0.083867	0.001732	0.001714	2.7236	4.9509×10^{-12}
Ex29Sub05	250	270	688	512x512x512	0.0101234	0.101158	0.001734	0.001728	2.9145	6.1631×10^{-12}
Ex29Sub06	550	270	688	512x512x512	0.095257	0.095225	0.001813	0.001808	2.9061	3.9683×10^{-12}
Ex29Sub07	250	560	688	512x512x512	0.139354	0.1393344	0.002002	0.002001	2.9462	4.3762×10^{-11}
Ex29Sub08	550	560	688	512x512x512	0.108302	0.108272	0.001898	0.001894	3.1530	7.4544×10^{-12}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 8: Table presenting all computed parameters for each subsample of full sample 30.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex30Sub01	300	270	220	512x512x512	0.081708	0.081016	0.001643	0.001643	2.8136	1.7547×10^{-11}
Ex30Sub02	570	270	220	512x512x512	0.061623	0.060453	0.001480	0.001411	2.9487	7.0034×10^{-12}
Ex30Sub03	300	620	220	512x512x512	0.078211	0.077074	0.001632	0.001586	3.1405	7.8634×10^{-12}
Ex30Sub04	570	620	220	512x512x512	0.052056	0.049618	0.001420	0.001321	2.3078	9.1998×10^{-13}
Ex30Sub05	300	270	588	512x512x512	0.080040	0.079915	0.001656	0.001646	3.0186	7.8493×10^{-12}
Ex30Sub06	570	270	588	512x512x512	0.064841	0.063569	0.001474	0.001426	3.0924	6.0615×10^{-12}
Ex30Sub07	300	620	588	512x512x512	0.075901	0.075296	0.001600	0.001566	2.9057	7.6428×10^{-12}
Ex30Sub08	570	620	588	512x512x512	0.075952	0.075502	0.001545	0.001518	3.5890	5.4412×10^{-12}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 9: Table presenting all computed parameters for each subsample of full sample 31. Empty cells denote a simulation which did not converge.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex31Sub01	300	200	300	512x512x512	0.083755	0.080562	0.001589	0.001494	3.9590	3.7192×10^{-12}
Ex31Sub02	570	200	300	512x512x512	0.112373	0.111034	0.001696	0.001650	2.3322	1.6933×10^{-10}
Ex31Sub03	300	580	300	512x512x512	0.094594	0.094583	0.001737	0.001734	-	-
Ex31Sub04	570	580	300	512x512x512	0.097983	0.097562	0.001777	0.001756	3.1126	6.7461×10^{-12}
Ex31Sub05	300	200	585	512x512x512	0.102019	0.101986	0.001814	0.001808	3.3335	1.0271×10^{-11}
Ex31Sub06	570	200	585	512x512x512	0.116349	0.116260	0.001781	0.001770	3.3330	1.1042×10^{-10}
Ex31Sub07	300	580	585	512x512x512	0.093658	0.093150	0.001813	0.001799	2.9759	6.7769×10^{-12}
Ex31Sub08	570	580	585	512x512x512	0.095722	0.095647	0.001842	0.001833	3.0146	5.2386×10^{-12}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 10: Table presenting all computed parameters for each subsample of full sample 32. Empty cells denote a simulation which did not converge.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex32Sub01	260	200	300	512x512x512	0.14897	0.148925	0.002311	0.002307	2.9500	5.7975×10^{-11}
Ex32Sub02	480	200	300	512x512x512	0.139209	0.139177	0.002183	0.002180	2.7449	6.6573×10^{-11}
Ex32Sub03	260	580	300	512x512x512	0.108525	0.108454	0.001954	0.001946	3.0370	2.9841×10^{-11}
Ex32Sub04	480	580	300	512x512x512	0.126154	0.126113	0.002051	0.002047	3.0112	5.3088×10^{-11}
Ex32Sub05	260	200	688	512x512x512	0.15043	0.150423	0.002209	0.002208	-	-
Ex32Sub06	480	200	688	512x512x512	0.153428	0.153424	0.002277	0.002276	2.7845	1.0090×10^{-10}
Ex32Sub07	260	580	688	512x512x512	0.121058	0.120886	0.001923	0.001912	2.9216	1.1587×10^{-11}
Ex32Sub08	480	580	688	512x512x512	0.13975	0.139708	0.002132	0.002127	2.8426	7.9489×10^{-11}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 11: Table presenting all computed parameters for each subsample of full sample 33.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex33Sub01	250	200	300	512x512x512	0.142643	0.14262	0.002280	0.002277	2.9375	6.4878×10^{-11}
Ex33Sub02	500	200	300	512x512x512	0.15276	0.15275	0.002372	0.002370	2.7040	1.1327×10^{-10}
Ex33Sub03	250	620	300	512x512x512	0.168557	0.16850	0.002375	0.002370	2.8905	1.0842×10^{-10}
Ex33Sub04	500	620	300	512x512x512	0.148534	0.14809	0.002285	0.002274	2.7569	4.8053×10^{-11}
Ex33Sub05	250	200	688	512x512x512	0.166676	0.16642	0.002194	0.002186	2.6611	1.5603×10^{-10}
Ex33Sub06	500	200	688	512x512x512	0.161741	0.16171	0.002186	0.002184	2.7634	1.3074×10^{-10}
Ex33Sub07	250	620	688	512x512x512	0.173051	0.17265	0.002252	0.002243	2.9900	1.0015×10^{-10}
Ex33Sub08	500	620	688	512x512x512	0.164098	0.16408	0.002197	0.002194	2.8590	9.7772×10^{-11}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 12: Table presenting all computed parameters for each subsample of full sample 35.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex35Sub01	300	230	300	512x512x512	0.128539	0.12846	0.002130	0.002123	2.8561	3.6485×10^{-11}
Ex35Sub02	620	230	300	512x512x512	0.141053	0.14103	0.002016	0.002013	2.8673	5.2640×10^{-10}
Ex35Sub03	300	600	300	512x512x512	0.130561	0.13053	0.002168	0.002164	3.0336	5.4220×10^{-11}
Ex35Sub04	620	600	300	512x512x512	0.158124	0.15811	0.002252	0.002249	3.0041	8.3366×10^{-11}
Ex35Sub04	620	600	300	1024x1024x1024	0.158124	0.15811	0.002252	0.002249	3.0041	8.1811×10^{-11}
Ex35Sub05	300	230	688	512x512x512	0.125034	0.12390	0.002057	0.002027	2.9775	2.3044×10^{-11}
Ex35Sub06	620	230	688	512x512x512	0.148442	0.14842	0.002095	0.002091	2.9155	3.8459×10^{-11}
Ex35Sub07	300	600	688	512x512x512	0.151153	0.15098	0.002146	0.002139	2.7789	8.9612×10^{-11}
Ex35Sub08	620	600	688	512x512x512	0.150795	0.15066	0.002102	0.002096	2.7790	8.8771×10^{-11}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]

Table 13: Table presenting all computed parameters for each subsample of full sample 36.

Sample name	x_{start}	y_{start}	z_{start}	Resolution	ϕ_{tot}	ϕ_{eff}	S_{tot}	S_{eff}	$\tilde{\tau}_h$	k_{num}
Ex36Sub01	270	280	300	512x512x512	0.114534	0.11375	0.001944	0.001924	3.0055	1.7302×10^{-11}
Ex36Sub02	600	280	300	512x512x512	0.096502	0.09645	0.001954	0.001947	2.9384	1.4803×10^{-11}
Ex36Sub02	600	280	300	1024x1024x1024	0.096502	0.09645	0.001954	0.001947	2.9384	1.4227×10^{-11}
Ex36Sub03	270	600	300	512x512x512	0.118101	0.11803	0.001933	0.001926	2.9195	4.6326×10^{-11}
Ex36Sub04	600	600	300	512x512x512	0.107842	0.10777	0.001922	0.001914	2.8096	1.8616×10^{-11}
Ex36Sub05	270	280	588	512x512x512	0.111694	0.11026	0.001890	0.001842	3.1584	1.3812×10^{-11}
Ex36Sub06	600	280	588	512x512x512	0.089328	0.08929	0.001851	0.001845	2.9481	1.6967×10^{-11}
Ex36Sub07	270	600	588	512x512x512	0.115202	0.11509	0.001956	0.001948	3.0272	2.2184×10^{-11}
Ex36Sub08	600	600	588	512x512x512	0.103681	0.10360	0.001956	0.001949	3.2698	1.6661×10^{-11}

x_{start} : Starting point in x-direction in the full sample

y_{start} : Starting point in y-direction in the full sample

z_{start} : Starting point in z-direction in the full sample

ϕ_{tot} : Total porosity of the subsample

ϕ_{eff} : Effective porosity of the subsample

S_{tot} : Total specific surface of the subsample [μm^{-1}]

S_{eff} : Effective specific surface of the subsample [μm^{-1}]

$\tilde{\tau}_h$: Average hydraulic tortuosity of the subsample

k_{num} : Numerical estimate for the permeability of the subsample [m^2]