

Table S1. Convergence values

Label & Tolerance (mm)	Element count	Node count	Displacement (mm)	Max. Von Mises Stress (GPa)
<u>PS200</u>				
0.1	7,052,136	11,570,625	5.58220e-03	0.23
0.11	5,610,246	9,231,275	5.56287e-03	0.25
0.13	3,704,455	6,185,252	5.70716e-03	0.25
0.135	3,389,803	5,700,048	5.78070e-03	0.31
0.14	3,168,252	5,349,117	5.72738e-03	0.23
0.145	2,750,535	4,663,472	5.71361e-03	0.25
0.15	2,539,529	4,327,890	5.72758e-03	0.27
0.17	1,716,487	3,010,862	7.19069e-03	0.54
0.18	1,514,573	2,694,432	6.02971e-03	0.30
0.185	1,403,257	2,497,836	6.65263e-03	0.27
0.19	1,227,222	2,214,165	7.59719e-03	0.41
0.195	1,225,065	2,214,308	5.93030e-03	0.23
<u>PS350</u>				
0.1	8,386,979	12,702,213	1.08953e-02	0.35
0.105	5,789,882	9,120,948	1.86051e-02	0.50
0.11	4,998,935	7,902,123	1.87621e-02	0.50
0.115	4,408,090	7,013,416	1.90640e-02	0.59
0.12	4,776,565	7,436,836	1.94420e-02	0.48
0.125	3,492,976	5,646,144	1.92114e-02	0.49
0.13	3,038,131	4,946,961	2.02101e-02	0.49
0.135	2,738,590	4,500,152	2.00244e-02	0.49
0.14	2,385,861	3,984,429	2.02234e-02	0.49
0.145	2,156,320	3,598,978	2.06775e-02	0.49
0.15	1,983,167	3,327,685	2.07912e-02	0.48
0.155	1,808,569	3,053,057	2.11625e-02	0.74

0.165	1,498,982	2,570,742	2.24198e-02	0.56
0.17	1,326,077	2,301,263	2.24513e-02	0.57
0.175	1,497,422	2,520,254	2.25711e-02	0.52
0.18	1,147,582	2,028,287	2.36845e-02	0.57
0.185	1,104,781	1,931,868	2.45608e-02	0.58
0.19	955,545	1,702,279	2.52635e-02	0.61
0.195	911,897	1,638,733	2.40936e-02	0.53
0.20	924,863	1,618,871	2.58971e-02	0.64

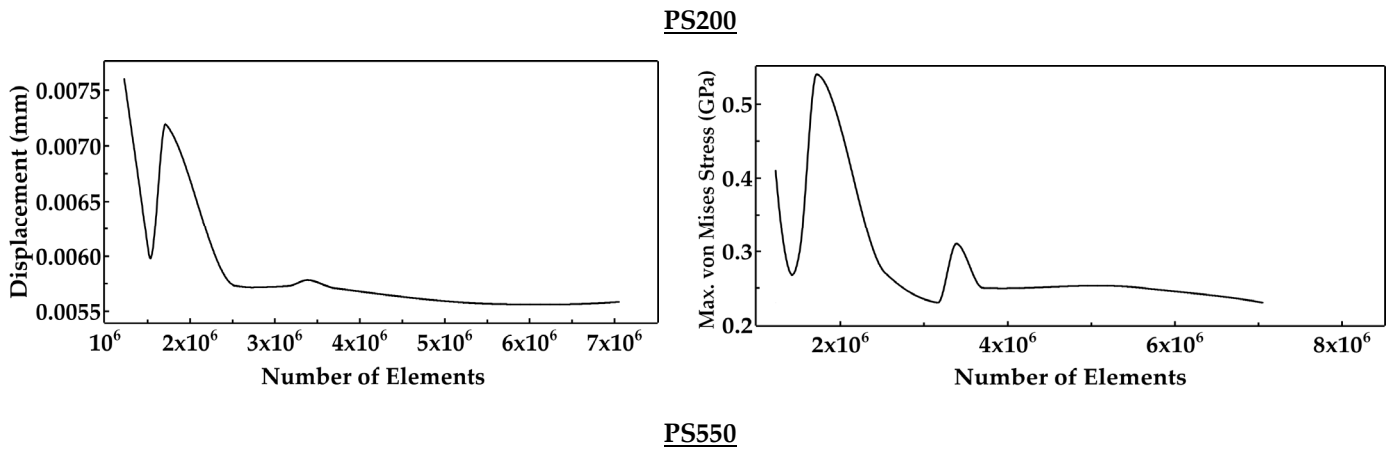
PS550

0.1	2,579,495	4,446,577	6.35200e-02	1.31
0.105	2,299,454	3,988,576	6.43004e-02	1.26
0.11	2,014,059	3,509,751	6.55061e-02	1.34
0.12	1,659,887	2,931,490	6.82948e-02	1.39
0.13	1,292,851	2,315,615	7.08361e-02	1.87
0.14	1,081,493	1,973,215	7.40556e-02	1.57
0.145	949,317	1,738,403	7.71285e-02	2.47
0.15	868,838	1,609,898	7.87791e-02	1.75
0.17	598,147	1,146,623	9.31271e-02	2.13
0.18	537,801	1,044,063	9.18833e-02	1.90
0.185	517,080	997,148	9.50286e-02	1.78
0.19	448,575	880,849	1.06417e-01	2.80
0.195	438,312	865,202	1.03483e-01	1.88

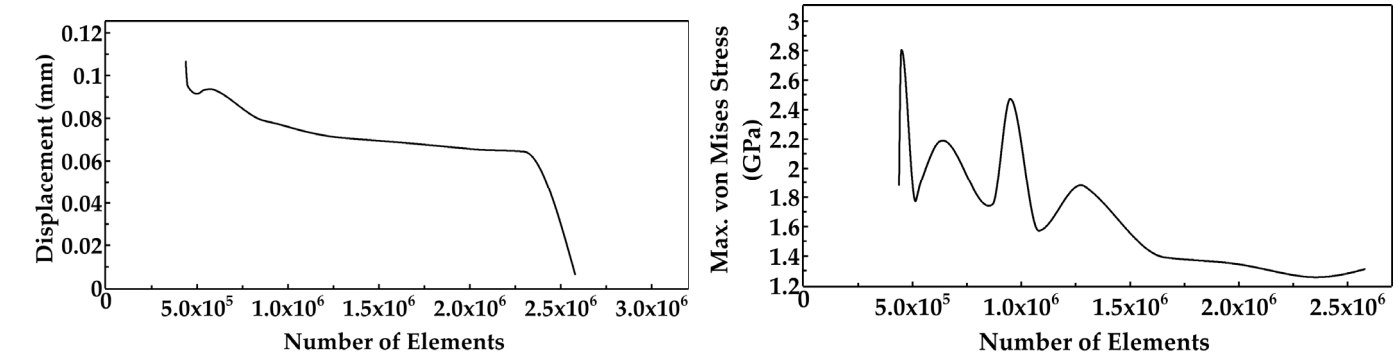
PS750

0.1	1,791,001	3,102,497	0.19	2.19
0.11	1,353,531	2,380,825	0.19	2.54
0.115	1,232,684	2,174,008	0.20	2.29
0.13	888,102	1,599,654	0.21	2.48
0.14	741,190	1,363,030	0.22	2.71
0.15	607,826	1,130,619	0.23	2.57
0.17	422,993	809,449	0.28	3.13
0.18	378,437	734,459	0.29	3.56
0.185	366,922	708,276	0.28	3.24
0.19	316,043	619,653	0.33	4.38

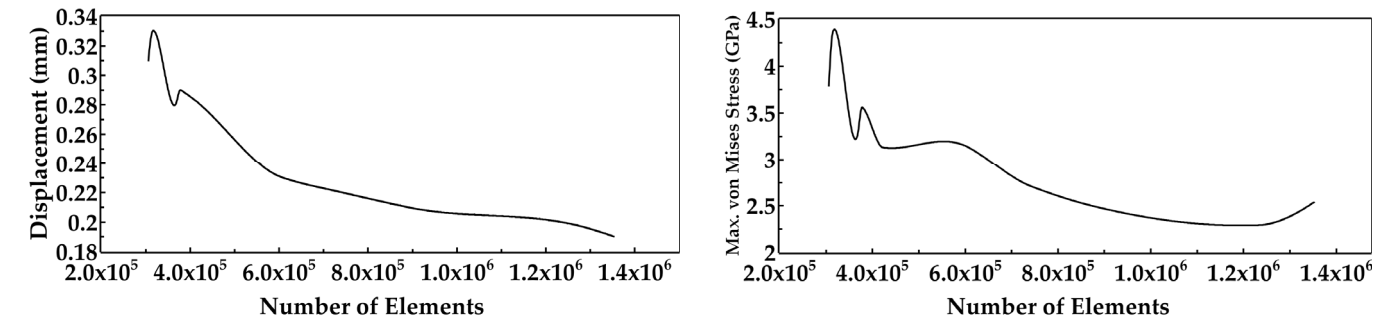
0.195	306,102	606,240	0.31	3.78
<u>PS1000</u>				
0.1	1,155,452	2,032,425	0.73	6.82
0.11	901,633	1,604,096	0.76	6.93
0.12	740,100	1,338,062	0.80	7.32
0.13	574,729	1,053,506	0.86	7.83
0.14	492,720	916,985	0.90	8.38
0.145	431,504	808,385	0.95	8.35
0.15	398,660	752,361	1	8.76
0.17	285,270	550,699	1.19	9.84
0.18	253,741	498,280	1.30	12.56
0.185	242,227	472,784	1.35	13.54
0.19	213,262	422,369	1.43	14.67
0.195	205,619	411,602	1.60	15.05



PS550



PS 750



PS1000

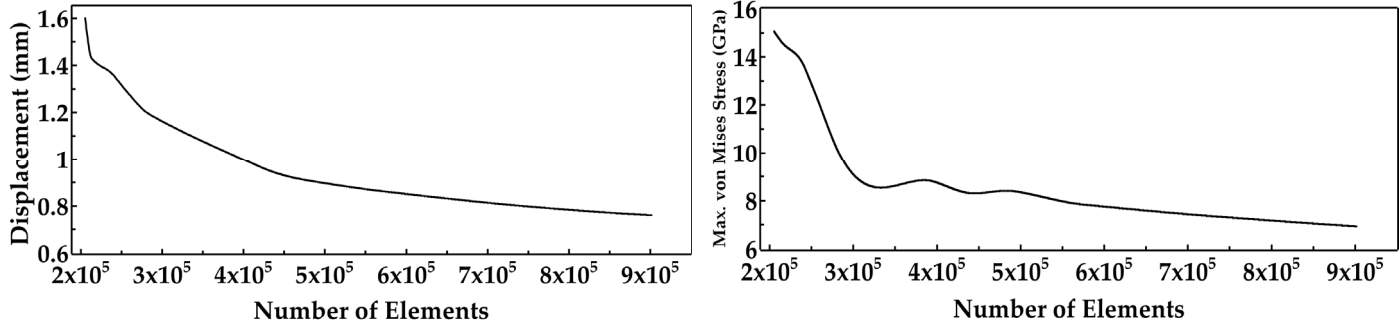
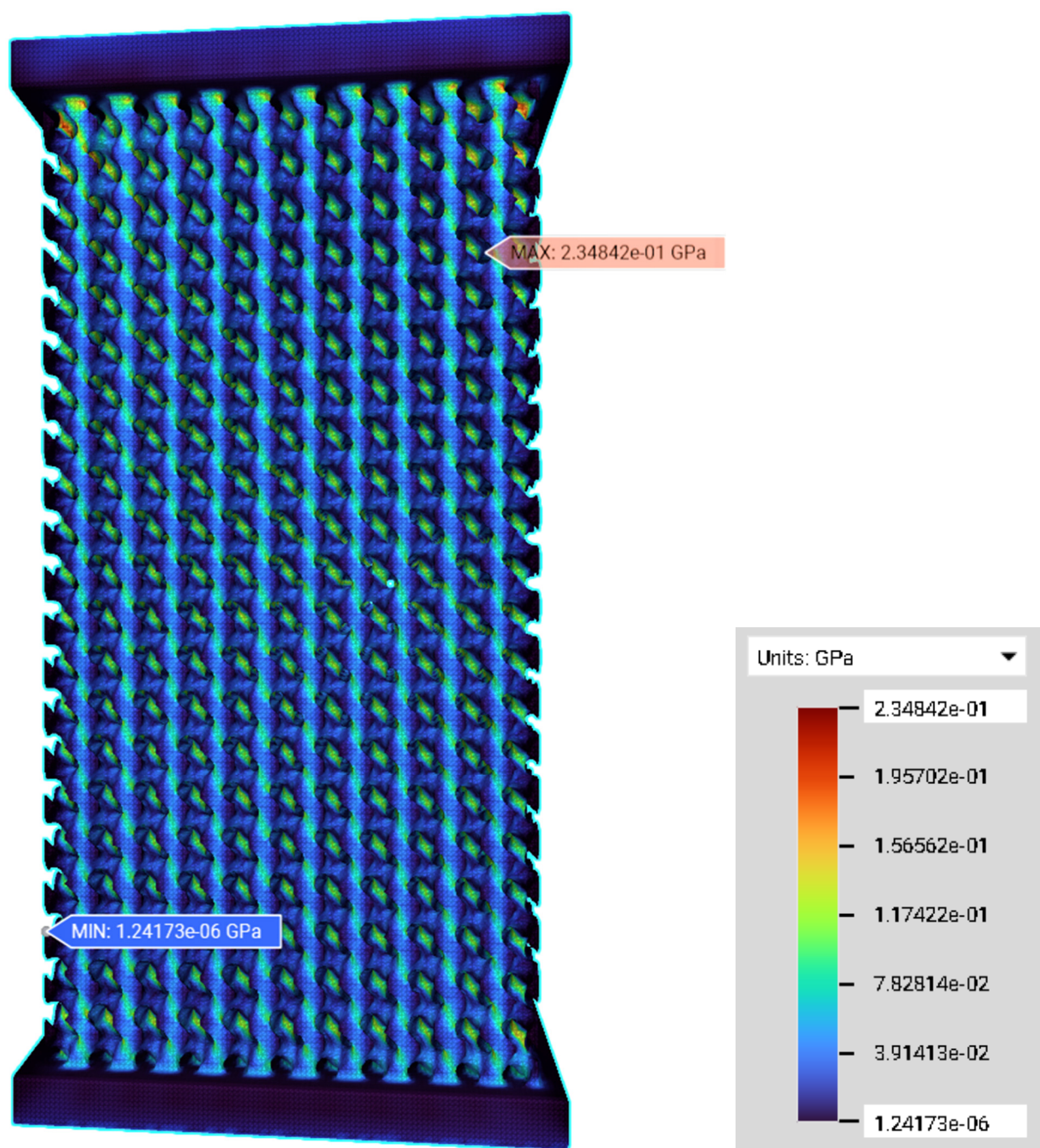


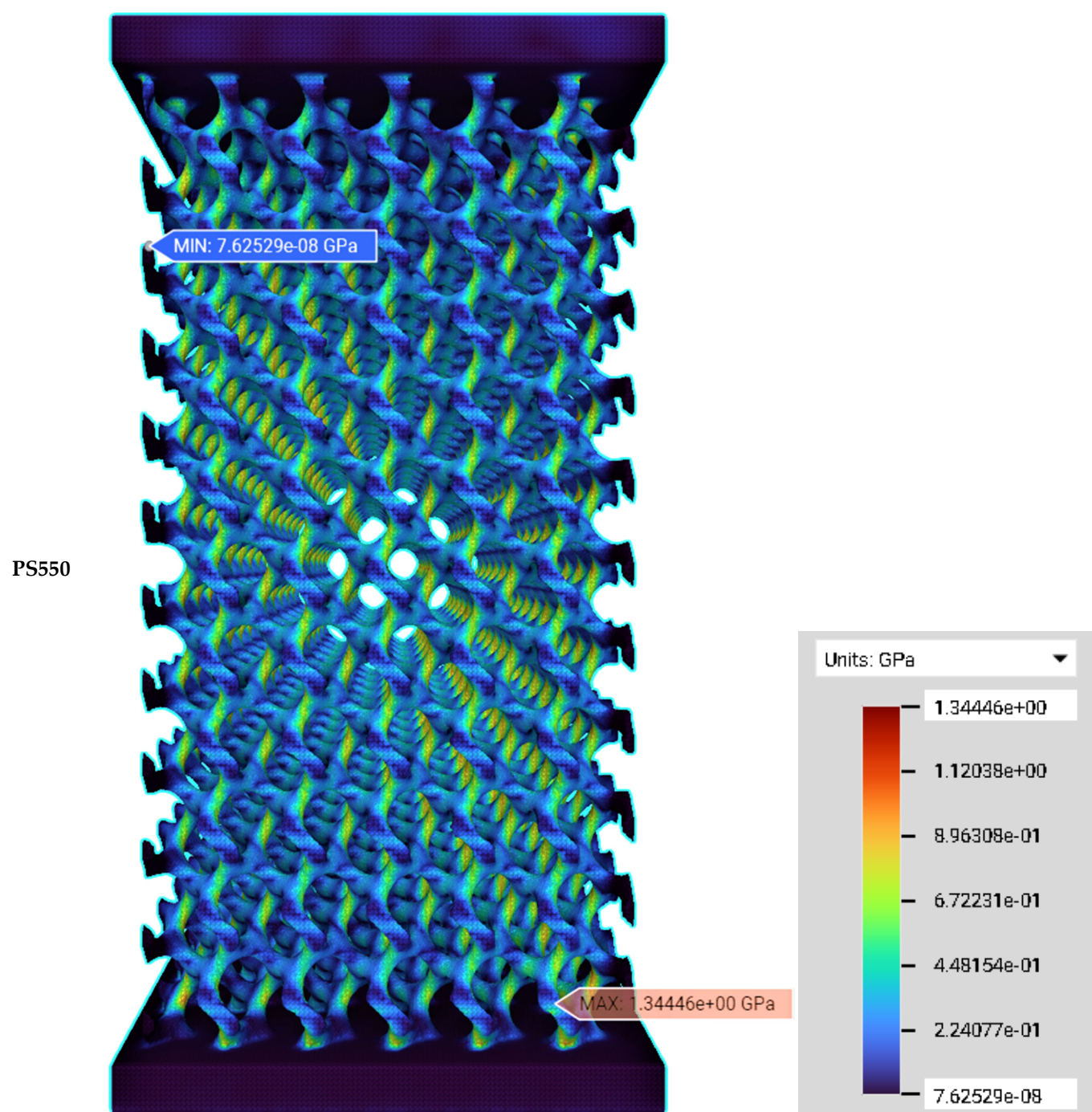
Figure S1. Convergence plots
Miscellaneous von Mises & Displacement contours

Table S2. von Mises contours of PS200, PS550, PS750, and PS1000 from the FE simulation. (von Mises contour of PS350 in the main article)

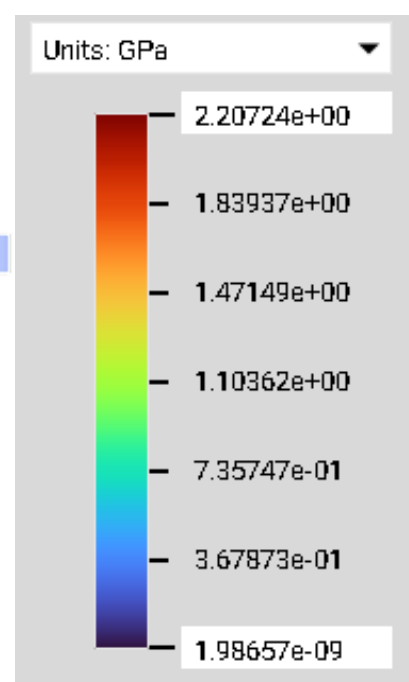
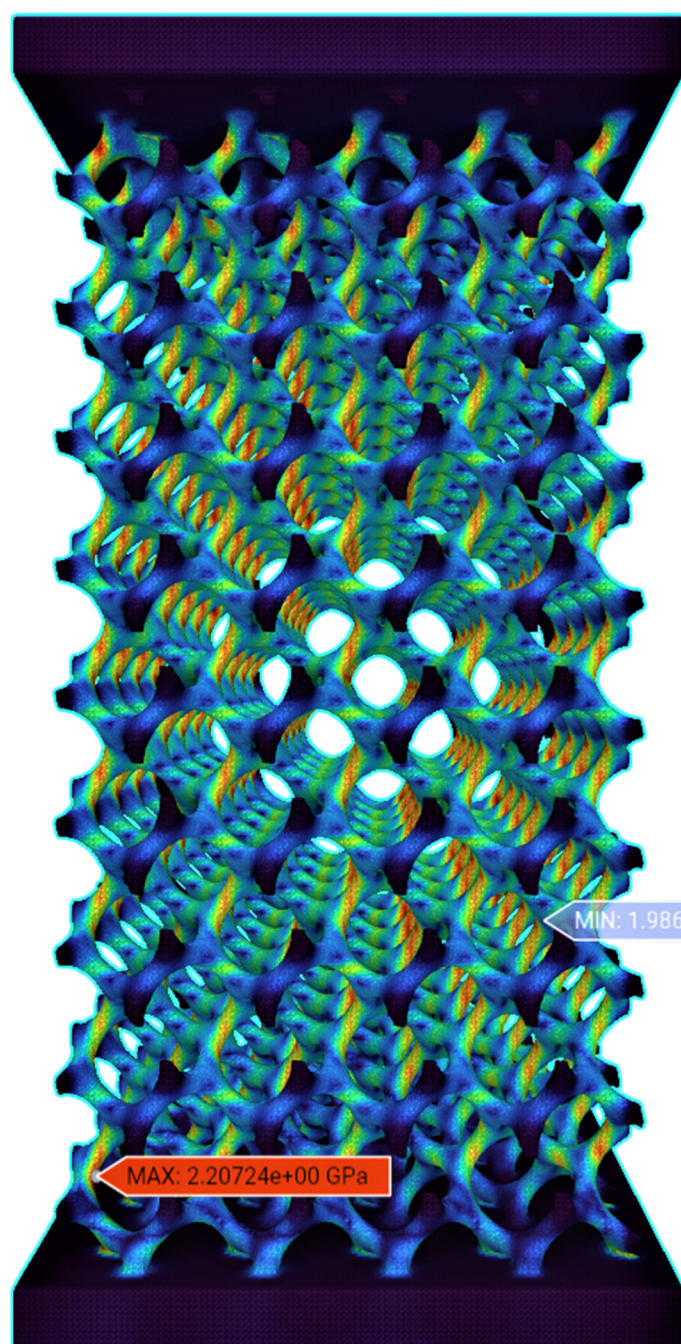
Label	von Mises Stress Contour (GPa)
-------	--------------------------------

PS200





PS750



PS1000

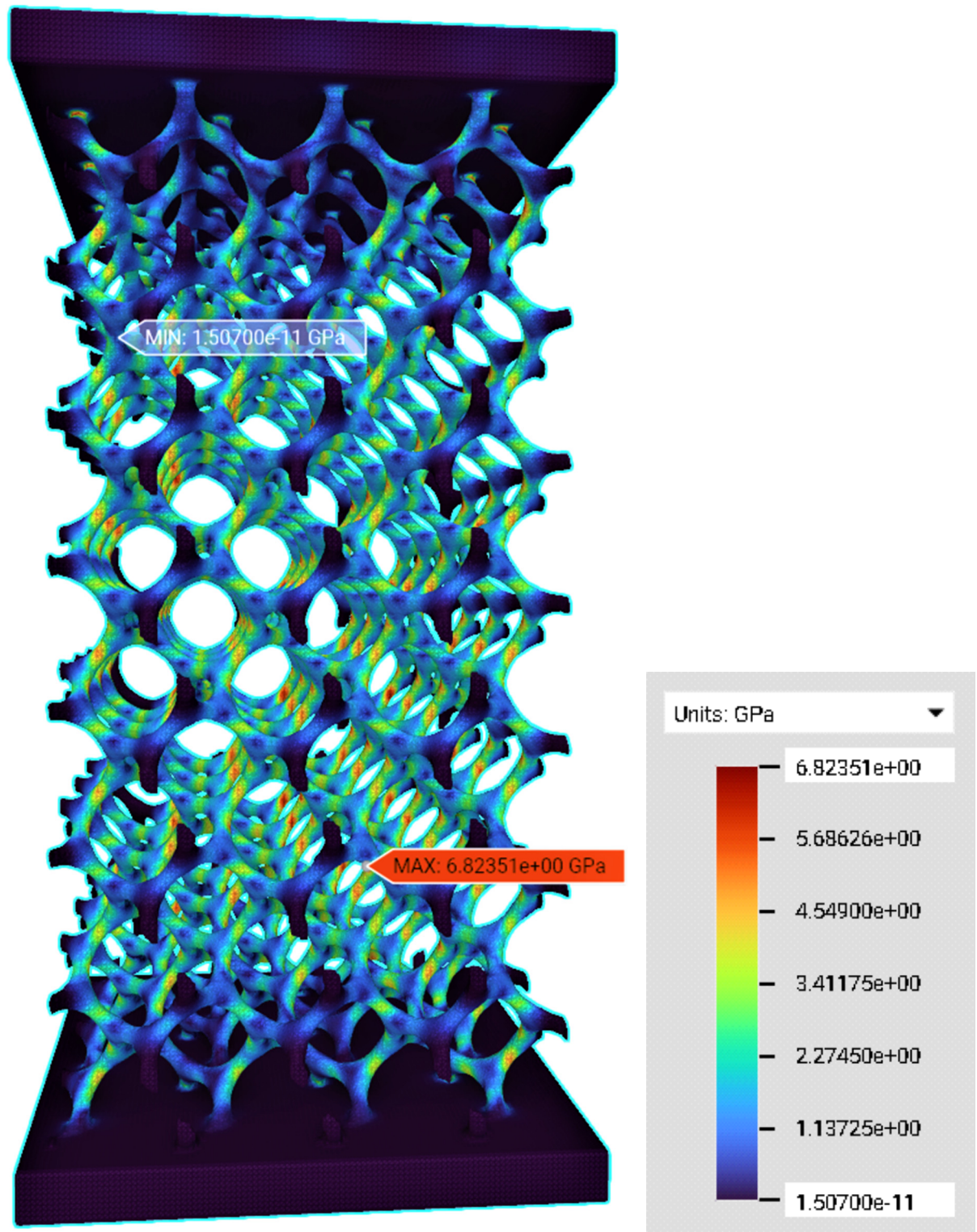
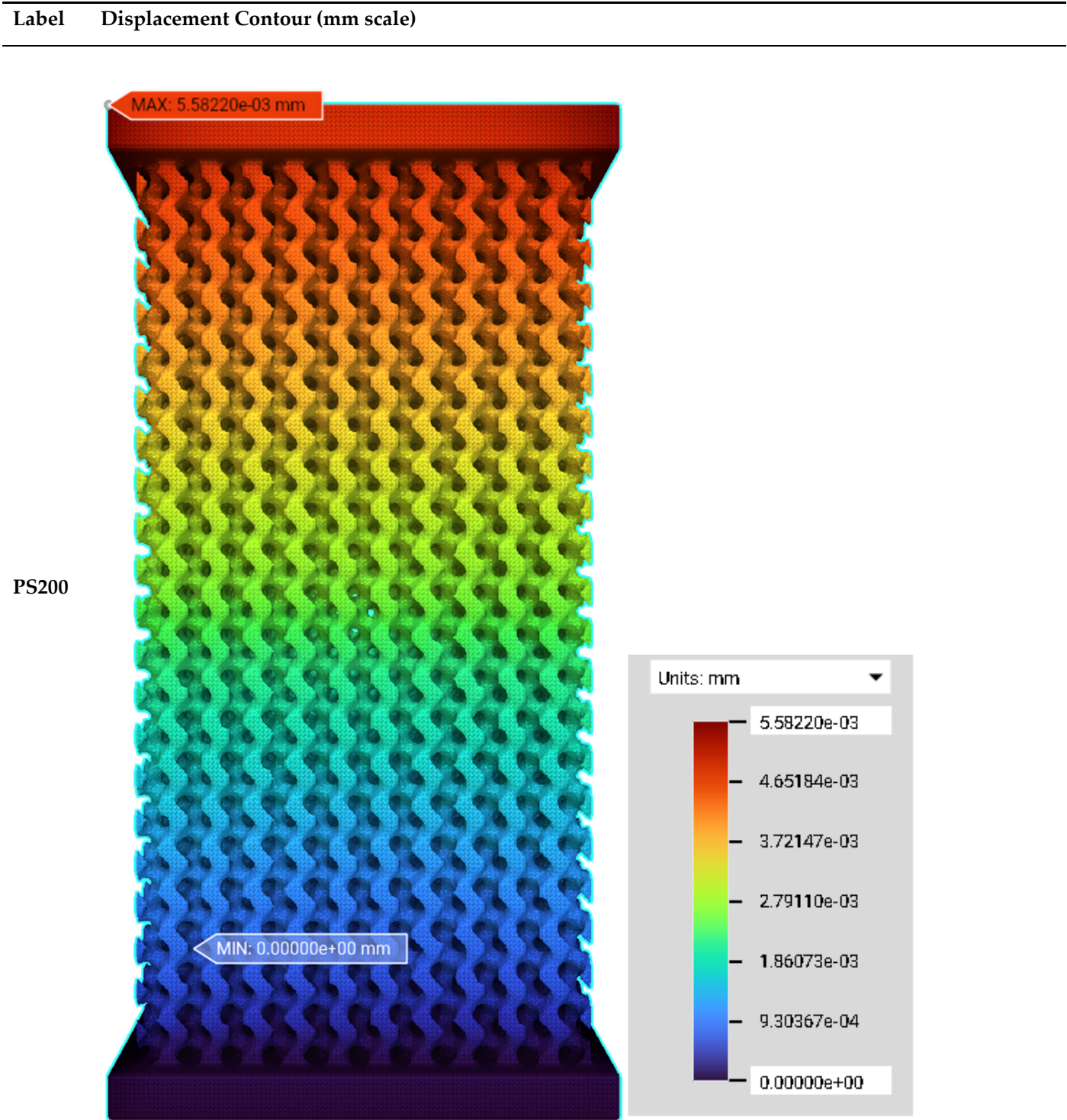
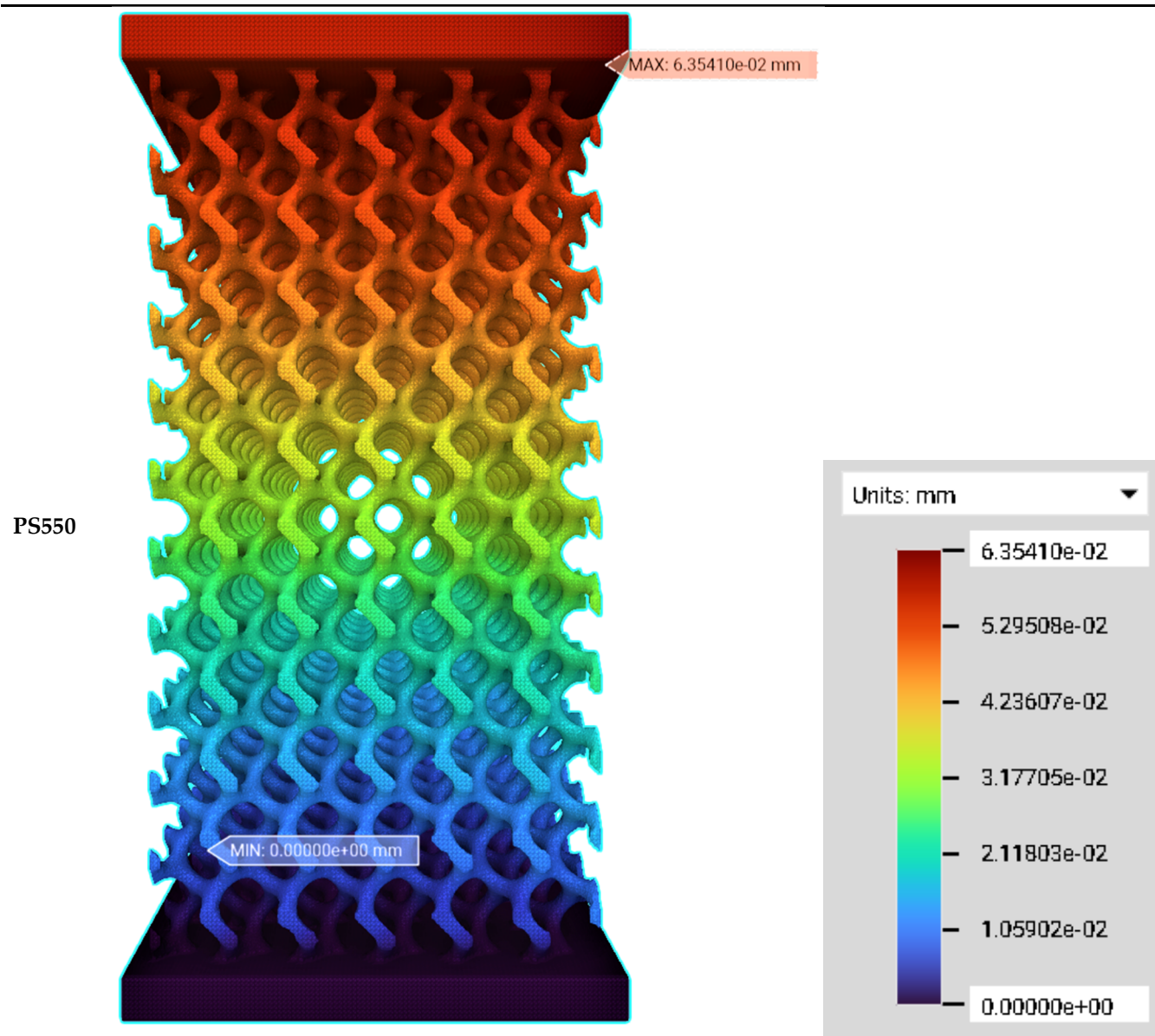
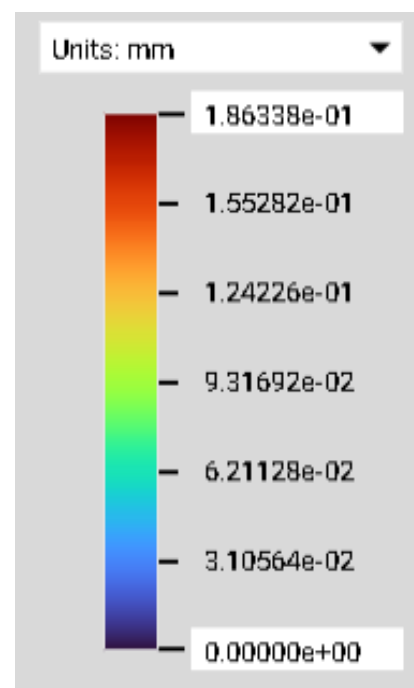
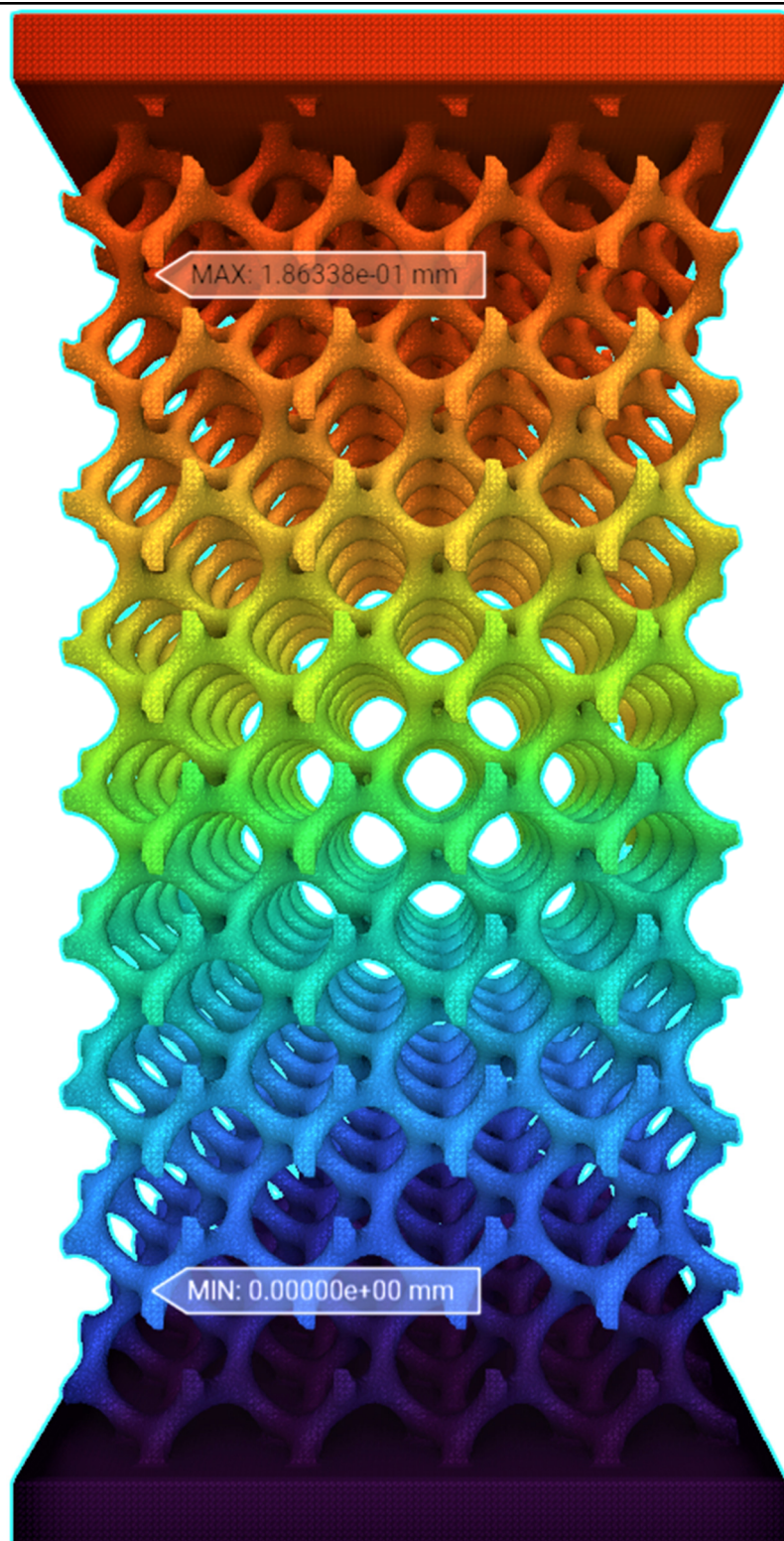


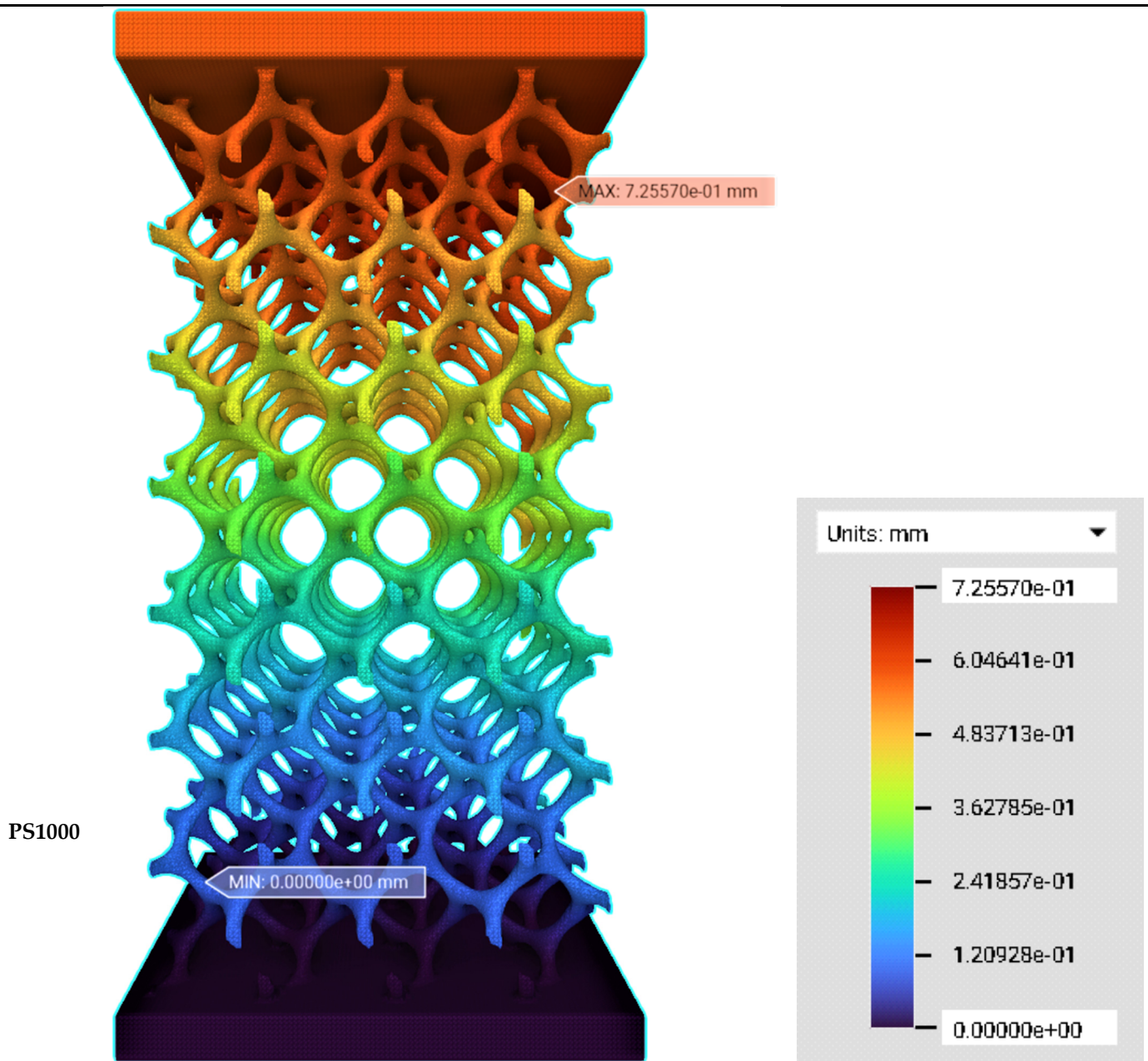
Table S3. Displacement contours of PS200, PS550, PS750, and PS1000 from the FE simulation. (Displacement contour of PS350 in the main article)





PS750





31
32
33
34
35