Appendix B : *In vivo* **Plaque Strains Estimates**

This appendix lists the plaque strain statistics described in Section 9.4.

ROI identification	Peak-to- peak mean	Peak-to- peak 90th percentile	r	Sum of absolute derivative mean	Sum of absolute derivative 90th percentile	Sum of absolute derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.0103	0.0177	0.00565	0.998	1.61	0.48
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent1	0.0207	0.0456	0.0164	1.85	3.89	1.36
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent0	0.0108	0.0206	0.00577	0.979	1.76	0.474
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent1	0.0248	0.052	0.0254	2.24	4.56	2.15
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent0	0.0143	0.0281	0.0106	1.26	2.28	0.944
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent1	0.0219	0.0405	0.0124	1.85	3.3	0.967
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent0	0.0116	0.0209	0.00652	1.07	1.81	0.566
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent1	0.0167	0.0345	0.0121	1.55	2.99	1.01

pat153lefticalongcont 20091007094020 Cycle0 MeshComponent0	0.0178	0.0296	0.00847	1.57	2.46	0.712
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent1	0.0318	0.0718	0.0363	2.82	6.31	2.94
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent0	0.0112	0.0179	0.00565	1.0	1.52	0.45
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent1	0.0173	0.0323	0.0098	1.53	2.72	0.804
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent0	0.0875	0.133	0.036	7.59	11.3	2.9
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent1	0.0605	0.152	0.0521	5.53	13.5	4.63
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent0	0.0766	0.12	0.0357	6.5	10.1	2.94
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent1	0.0513	0.147	0.0507	4.47	12.4	4.2
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent0	0.0216	0.0369	0.00984	1.8	2.97	0.727
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent1	0.0628	0.103	0.0281	5.69	9.01	2.39
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent0	0.0111	0.0176	0.0052	1.64	2.71	0.79
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent1	0.0147	0.0244	0.00668	1.86	2.97	0.795
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent0	0.0515	0.0818	0.0194	5.4	8.28	1.86
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent1	0.0846	0.168	0.0548	8.39	15.7	4.76
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent0	0.117	0.195	0.0579	10.1	16.7	4.85

pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent1	0.227	0.408	0.126	19.7	35.0	10.7
pat156leftbulblongcont 20100113095320 Cycle0 MeshComponent0	0.0431	0.0676	0.0259	4.55	7.65	2.27
pat156leftbulblongcont 20100113095320 Cycle1 MeshComponent0	0.0761	0.142	0.0437	6.8	12.4	3.69
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent0	0.0688	0.125	0.0346	6.15	11.5	3.0
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent1	0.0678	0.115	0.0307	6.66	12.2	3.36
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent0	0.0304	0.0446	0.01	2.98	4.12	0.793
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent1	0.0316	0.0511	0.0146	3.36	5.78	1.53
pat156rightbulblongcont 20100113093433 Cycle0 MeshComponent0	0.0888	0.164	0.0454	7.93	14.3	3.93
pat156rightbulblongcont 20100113093433 Cycle1 MeshComponent0	0.121	0.221	0.0764	10.6	18.9	6.41
pat156righticalongcont 20100113094331 Cycle0 MeshComponent0	0.167	0.327	0.148	14.6	28.9	12.7
pat156righticalongcont 20100113094331 Cycle1 MeshComponent0	0.142	0.293	0.128	12.3	24.7	10.6
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent0	0.0714	0.114	0.0316	6.8	9.95	2.48
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent1	0.0589	0.0911	0.0275	5.54	8.26	2.33
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent0	0.0749	0.123	0.0341	7.26	11.0	2.76
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent1	0.0581	0.0813	0.0252	5.45	7.34	2.01

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0.0491	0.0872	0.0278	4.93	8.34	2.61
0.0598	0.106	0.0351	6.66	11.1	3.95
0.0609	0.113	0.033	5.44	9.7	2.71
0.101	0.173	0.0498	8.99	14.8	4.11
0.0634	0.102	0.0278	5.29	8.35	2.19
0.0992	0.2	0.0664	8.46	16.7	5.54
0.0482	0.0788	0.0245	4.61	6.87	1.95
0.079	0.144	0.0448	7.57	13.8	4.11
0.0421	0.0704	0.0196	3.12	5.05	1.31
0.113	0.204	0.0575	8.78	14.9	3.81
0.079	0.147	0.0425	5.78	10.0	2.85
0.04	0.0712	0.0217	2.94	4.94	1.58
0.117	0.219	0.0627	7.62	12.8	3.48
0.0539	0.0757	0.0185	4.31	5.81	1.19
0.0296	0.045	0.0117	2.08	3.08	0.73
	0.0598 0.0609 0.101 0.0634 0.0992 0.0482 0.079 0.0421 0.113 0.079 0.04 0.117 0.0539	0.0598 0.106 0.0609 0.113 0.101 0.173 0.0634 0.102 0.0992 0.2 0.0482 0.0788 0.079 0.144 0.0421 0.0704 0.113 0.204 0.079 0.147 0.04 0.0712 0.117 0.219 0.0539 0.0757	0.0598 0.106 0.0351 0.0609 0.113 0.033 0.101 0.173 0.0498 0.0634 0.102 0.0278 0.0992 0.2 0.0664 0.0482 0.0788 0.0245 0.079 0.144 0.0448 0.0421 0.0704 0.0196 0.113 0.204 0.0575 0.079 0.147 0.0425 0.04 0.0712 0.0217 0.117 0.219 0.0627 0.0539 0.0757 0.0185	0.0598 0.106 0.0351 6.66 0.0609 0.113 0.033 5.44 0.101 0.173 0.0498 8.99 0.0634 0.102 0.0278 5.29 0.0992 0.2 0.0664 8.46 0.0482 0.0788 0.0245 4.61 0.079 0.144 0.0448 7.57 0.0421 0.0704 0.0196 3.12 0.113 0.204 0.0575 8.78 0.079 0.147 0.0425 5.78 0.04 0.0712 0.0217 2.94 0.117 0.219 0.0627 7.62 0.0539 0.0757 0.0185 4.31	0.0598 0.106 0.0351 6.66 11.1 0.0609 0.113 0.033 5.44 9.7 0.101 0.173 0.0498 8.99 14.8 0.0634 0.102 0.0278 5.29 8.35 0.0992 0.2 0.0664 8.46 16.7 0.0482 0.0788 0.0245 4.61 6.87 0.079 0.144 0.0448 7.57 13.8 0.0421 0.0704 0.0196 3.12 5.05 0.113 0.204 0.0575 8.78 14.9 0.079 0.147 0.0425 5.78 10.0 0.04 0.0712 0.0217 2.94 4.94 0.117 0.219 0.0627 7.62 12.8 0.0539 0.0757 0.0185 4.31 5.81

pat158lefticalongcont 20100315133214 Cycle0 MeshComponent1	0.0998	0.142	0.0364	7.53	10.1	2.23
pat158lefticalongcont 20100315133214 Cycle1 MeshComponent0	0.0292	0.048	0.0144	2.02	3.28	1.01

 Table B.1: Maximum absolute principal strain estimates.

ROI identification	Peak-to- peak mean	Peak-to- peak 90th percentile	Peak-to- peak std. dev.	Sum of absolute derivative mean	Sum of absolute derivative 90th percentile	Sum of absolute derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.0165	0.0287	0.0086	1.57	2.56	0.724
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent1	0.0245	0.047	0.0161	2.22	4.02	1.31
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent0	0.0158	0.0285	0.0085	1.5	2.57	0.75
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent1	0.0344	0.0591	0.0334	3.13	5.24	2.82
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent0	0.0224	0.0412	0.0169	1.98	3.37	1.53
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent1	0.0348	0.0671	0.0217	2.92	5.48	1.7
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent0	0.0205	0.0356	0.0116	1.88	3.16	0.987
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent1	0.0297	0.0644	0.0249	2.68	5.51	2.07
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent0	0.0285	0.0492	0.0141	2.55	4.43	1.21
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent1	0.0507	0.106	0.0663	4.48	9.8	5.43

pat153lefticalongcont 20091007094020 Cycle1 MeshComponent0	0.0191	0.0312	0.00936	1.68	2.66	0.759
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent1	0.0288	0.0568	0.0176	2.56	4.83	1.48
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent0	0.117	0.19	0.0569	10.6	16.1	4.66
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent1	0.1	0.259	0.0927	9.36	22.9	8.3
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent0	0.0954	0.149	0.0439	8.12	12.4	3.57
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent1	0.0873	0.257	0.0893	7.65	21.9	7.42
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent0	0.0351	0.0683	0.0191	2.94	5.44	1.47
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent1	0.0661	0.0947	0.0213	6.1	8.39	1.77
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent0	0.0141	0.0213	0.00811	2.08	3.07	1.05
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent1	0.0176	0.0323	0.0114	2.24	4.0	1.31
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent0	0.078	0.116	0.0277	8.16	11.8	2.69
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent1	0.108	0.183	0.057	11.3	18.4	5.36
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent0	0.175	0.288	0.0813	15.1	24.4	6.7
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent1	0.309	0.558	0.164	27.3	47.7	13.7
pat156leftbulblongcont 20100113095320 Cycle0 MeshComponent0	0.0616	0.109	0.0342	6.6	12.0	3.49

pat156leftbulblongcont 20100113095320 Cycle1 MeshComponent0	0.123	0.219	0.0714	11.1	19.6	6.22
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent0	0.119	0.215	0.0585	10.7	18.6	4.73
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent1	0.112	0.189	0.0539	10.9	19.1	5.48
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent0	0.0422	0.0635	0.0156	4.36	6.05	1.31
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent1	0.0509	0.0846	0.0227	5.29	9.11	2.32
pat156rightbulblongcont 20100113093433 Cycle0 MeshComponent0	0.144	0.282	0.0854	12.9	25.0	7.58
pat156rightbulblongcont 20100113093433 Cycle1 MeshComponent0	0.198	0.366	0.124	17.3	31.3	10.4
pat156righticalongcont 20100113094331 Cycle0 MeshComponent0	0.224	0.473	0.206	19.7	42.6	17.8
pat156righticalongcont 20100113094331 Cycle1 MeshComponent0	0.188	0.409	0.175	16.5	35.4	14.5
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent0	0.107	0.175	0.0471	10.6	16.3	3.96
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent1	0.0966	0.162	0.0483	9.12	15.0	4.18
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent0	0.108	0.184	0.0525	11.3	17.6	4.65
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent1	0.0973	0.149	0.043	9.12	13.1	3.36
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent0	0.0852	0.155	0.0515	8.41	14.9	4.77
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent1	0.101	0.19	0.0682	11.3	20.6	7.32

0.0973	0.172	0.0518	8.84	15.4	4.46
0.162	0.275	0.0881	14.6	24.2	7.35
0.0933	0.152	0.0451	7.94	12.5	3.49
0.169	0.336	0.111	14.4	27.9	9.23
0.0712	0.117	0.0407	7.04	10.7	3.28
0.135	0.248	0.0771	12.9	23.5	6.95
0.0673	0.106	0.0287	5.09	7.83	1.93
0.173	0.292	0.0784	13.2	20.6	5.16
0.0885	0.142	0.0388	6.84	9.93	2.61
0.0613	0.0994	0.0337	4.65	7.31	2.52
0.162	0.291	0.0866	10.9	17.8	5.02
0.0884	0.122	0.0273	6.94	8.82	1.69
0.0488	0.0819	0.0233	3.43	5.46	1.45
0.108	0.153	0.0355	7.93	11.4	2.44
0.0483	0.084	0.0276	3.37	5.83	1.96
	0.162 0.0933 0.169 0.0712 0.135 0.0673 0.173 0.0885 0.0613 0.162 0.0884 0.0488 0.108	0.162 0.275 0.0933 0.152 0.169 0.336 0.0712 0.117 0.135 0.248 0.0673 0.106 0.173 0.292 0.0885 0.142 0.0613 0.0994 0.162 0.291 0.0884 0.122 0.0488 0.0819 0.108 0.153	0.162 0.275 0.0881 0.0933 0.152 0.0451 0.169 0.336 0.111 0.0712 0.117 0.0407 0.135 0.248 0.0771 0.0673 0.106 0.0287 0.173 0.292 0.0784 0.0885 0.142 0.0388 0.0613 0.0994 0.0337 0.162 0.291 0.0866 0.0884 0.122 0.0273 0.0488 0.0819 0.0233 0.108 0.153 0.0355	0.162 0.275 0.0881 14.6 0.0933 0.152 0.0451 7.94 0.169 0.336 0.111 14.4 0.0712 0.117 0.0407 7.04 0.135 0.248 0.0771 12.9 0.0673 0.106 0.0287 5.09 0.173 0.292 0.0784 13.2 0.0885 0.142 0.0388 6.84 0.0613 0.0994 0.0337 4.65 0.162 0.291 0.0866 10.9 0.0884 0.122 0.0273 6.94 0.0488 0.0819 0.0233 3.43 0.108 0.153 0.0355 7.93	0.162 0.275 0.0881 14.6 24.2 0.0933 0.152 0.0451 7.94 12.5 0.169 0.336 0.111 14.4 27.9 0.0712 0.117 0.0407 7.04 10.7 0.135 0.248 0.0771 12.9 23.5 0.0673 0.106 0.0287 5.09 7.83 0.173 0.292 0.0784 13.2 20.6 0.0885 0.142 0.0388 6.84 9.93 0.0613 0.0994 0.0337 4.65 7.31 0.162 0.291 0.0866 10.9 17.8 0.0884 0.122 0.0273 6.94 8.82 0.0488 0.0819 0.0233 3.43 5.46 0.108 0.153 0.0355 7.93 11.4

Table B.2: Maximum shear strain estimates.

ROI identification	Peak-to- peak mean	Peak-to- peak 90th percentile	Peak-to- peak std. dev.	Sum of absolute derivative mean	Sum of absolute derivative 90th percentile	Sum of absolute derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.000357	0.000762	0.000329	0.035	0.0737	0.0309
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent1	0.00102	0.00253	0.00159	0.0897	0.217	0.135
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent0	0.000325	0.000761	0.000314	0.031	0.0742	0.029
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent1	0.00209	0.00433	0.00577	0.184	0.382	0.494
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent0	0.00082	0.00172	0.00123	0.0788	0.212	0.122
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent1	0.00181	0.00495	0.00229	0.154	0.416	0.191
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent0	0.000738	0.00205	0.000829	0.0663	0.18	0.0712
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent1	0.00161	0.0044	0.00285	0.137	0.364	0.235
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent0	0.00111	0.00262	0.00107	0.103	0.267	0.103
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent1	0.00562	0.0139	0.0136	0.492	1.26	1.18
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent0	0.000426	0.000817	0.000459	0.0375	0.0701	0.039
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent1	0.00103	0.00257	0.000989	0.0891	0.216	0.0831
pat153rightbulblongcont 20091007085547 Cycle0	0.0134	0.0272	0.0105	1.14	2.28	0.87

MeshComponent0						
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent1	0.0126	0.043	0.018	1.16	3.92	1.64
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent0	0.0106	0.0217	0.0105	0.875	1.75	0.85
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent1	0.0102	0.0436	0.0171	0.844	3.6	1.41
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent0	0.000961	0.00259	0.00089	0.0858	0.231	0.0792
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent1	0.00679	0.0135	0.00463	0.623	1.22	0.415
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent0	0.00129	0.00235	0.000795	0.148	0.269	0.0947
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent1	0.00503	0.0126	0.00502	0.501	1.23	0.494
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent0	0.00511	0.0106	0.00334	0.526	1.06	0.334
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent1	0.0166	0.0409	0.017	1.63	3.87	1.54
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent0	0.031	0.0671	0.0279	2.72	5.83	2.38
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent1	0.112	0.27	0.121	9.77	23.2	10.3
pat156leftbulblongcont 20100113095320 Cycle0 MeshComponent0	0.008	0.02	0.00778	0.729	1.79	0.702
pat156leftbulblongcont 20100113095320 Cycle1 MeshComponent0	0.0221	0.0535	0.0212	1.94	4.67	1.82
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent0	0.0162	0.0435	0.016	1.42	3.75	1.37

0.0173	0.0415	0.0155	1.64	4.03	1.51
0.00372	0.0081	0.00299	0.375	0.763	0.259
0.0073	0.0166	0.00598	0.658	1.48	0.525
0.0191	0.0517	0.0231	1.71	4.54	2.08
0.036	0.0885	0.0472	3.11	7.55	4.02
0.0724	0.164	0.146	6.4	14.6	12.6
0.058	0.139	0.114	5.14	12.7	9.79
0.00985	0.0202	0.007	0.9	1.72	0.584
0.00842	0.0174	0.00729	0.757	1.51	0.62
0.01	0.0217	0.00809	0.942	1.86	0.675
0.0073	0.014	0.00654	0.638	1.18	0.54
0.0089	0.02	0.011	0.831	1.84	1.01
0.0109	0.0258	0.0141	1.08	2.61	1.35
0.00918	0.0224	0.00896	0.812	1.92	0.762
0.0243	0.0487	0.024	2.13	4.09	2.0
	0.00372 0.0073 0.0191 0.036 0.0724 0.058 0.00985 0.00842 0.01 0.0073 0.0089 0.0109 0.00918	0.00372 0.0081 0.0073 0.0166 0.0191 0.0517 0.036 0.0885 0.0724 0.164 0.058 0.139 0.00985 0.0202 0.00842 0.0174 0.0073 0.014 0.0089 0.02 0.0109 0.0258 0.00918 0.0224	0.00372 0.0081 0.00299 0.0073 0.0166 0.00598 0.0191 0.0517 0.0231 0.036 0.0885 0.0472 0.0724 0.164 0.146 0.058 0.139 0.114 0.00985 0.0202 0.007 0.00842 0.0174 0.00729 0.01 0.0217 0.00809 0.0073 0.014 0.00654 0.0089 0.02 0.011 0.0109 0.0258 0.0141 0.00918 0.0024 0.00896	0.00372 0.0081 0.00299 0.375 0.0073 0.0166 0.00598 0.658 0.0191 0.0517 0.0231 1.71 0.036 0.0885 0.0472 3.11 0.0724 0.164 0.146 6.4 0.058 0.139 0.114 5.14 0.00985 0.0202 0.007 0.9 0.00842 0.0174 0.00729 0.757 0.01 0.0217 0.00809 0.942 0.0073 0.014 0.00654 0.638 0.0089 0.02 0.011 0.831 0.0109 0.0258 0.0141 1.08 0.00918 0.0224 0.00896 0.812	0.00372 0.0081 0.00299 0.375 0.763 0.0073 0.0166 0.00598 0.658 1.48 0.0191 0.0517 0.0231 1.71 4.54 0.036 0.0885 0.0472 3.11 7.55 0.0724 0.164 0.146 6.4 14.6 0.058 0.139 0.114 5.14 12.7 0.00985 0.0202 0.007 0.9 1.72 0.00842 0.0174 0.00729 0.757 1.51 0.01 0.0217 0.00809 0.942 1.86 0.0073 0.014 0.00654 0.638 1.18 0.0089 0.02 0.011 0.831 1.84 0.00918 0.0224 0.00896 0.812 1.92

0.00812	0.0173	0.00719	0.687	1.4	0.577
0.0251	0.0669	0.032	2.16	5.66	2.7
0.00565	0.00985	0.00663	0.547	0.958	0.552
0.0173	0.0452	0.0213	1.6	4.09	1.9
0.00486	0.0105	0.0038	0.341	0.712	0.252
0.0381	0.0863	0.0326	2.65	5.73	2.06
0.014	0.0311	0.013	1.07	2.2	0.961
0.00436	0.00824	0.00499	0.335	0.615	0.352
0.0271	0.0661	0.0239	1.93	4.59	1.64
0.0131	0.0248	0.00798	0.992	1.75	0.557
0.00449	0.00914	0.00383	0.3	0.614	0.253
0.0261	0.0403	0.0125	1.9	2.81	0.849
0.00233	0.00548	0.00304	0.154	0.359	0.194
	0.0251 0.00565 0.0173 0.00486 0.0381 0.014 0.00436 0.0271 0.0131 0.00449 0.0261	0.0251 0.0669 0.00565 0.00985 0.0173 0.0452 0.00486 0.0105 0.0381 0.0863 0.014 0.0311 0.00436 0.00824 0.0271 0.0661 0.0131 0.0248 0.00449 0.00914 0.0261 0.0403	0.0251 0.0669 0.032 0.00565 0.00985 0.00663 0.0173 0.0452 0.0213 0.00486 0.0105 0.0038 0.0381 0.0863 0.0326 0.014 0.0311 0.013 0.00436 0.00824 0.00499 0.0271 0.0661 0.0239 0.0131 0.0248 0.00798 0.00449 0.00914 0.00383 0.0261 0.0403 0.0125	0.0251 0.0669 0.032 2.16 0.00565 0.00985 0.00663 0.547 0.0173 0.0452 0.0213 1.6 0.00486 0.0105 0.0038 0.341 0.0381 0.0863 0.0326 2.65 0.014 0.0311 0.013 1.07 0.00436 0.00824 0.00499 0.335 0.0271 0.0661 0.0239 1.93 0.0131 0.0248 0.00798 0.992 0.00449 0.00914 0.00383 0.3 0.0261 0.0403 0.0125 1.9	0.0251 0.0669 0.032 2.16 5.66 0.00565 0.00985 0.00663 0.547 0.958 0.0173 0.0452 0.0213 1.6 4.09 0.00486 0.0105 0.0038 0.341 0.712 0.0381 0.0863 0.0326 2.65 5.73 0.014 0.0311 0.013 1.07 2.2 0.00436 0.00824 0.00499 0.335 0.615 0.0271 0.0661 0.0239 1.93 4.59 0.0131 0.0248 0.00798 0.992 1.75 0.00449 0.00914 0.00383 0.3 0.614 0.0261 0.0403 0.0125 1.9 2.81

 Table B.3: Distortional energy estimates.

ROI identification	Peak-to-	Peak-to-	Peak-to-	Sum of	Sum of	Sum of
	peak mean	peak 90th	peak std. dev.	absolute	absolute	absolute

		percentile		derivative mean	derivative 90th percentile	derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.00059	0.0013	0.000498	0.0569	0.126	0.0469
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent1	0.00123	0.00278	0.00151	0.111	0.247	0.131
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent0	0.000557	0.0013	0.000558	0.0538	0.138	0.0535
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent1	0.00307	0.00421	0.00956	0.273	0.37	0.817
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent0	0.00151	0.00306	0.00231	0.145	0.383	0.231
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent1	0.00344	0.00957	0.00439	0.294	0.804	0.368
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent0	0.00144	0.00408	0.00166	0.128	0.355	0.142
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent1	0.00317	0.00874	0.00572	0.268	0.723	0.473
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent0	0.002	0.00513	0.00211	0.186	0.511	0.202
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent1	0.0106	0.0269	0.0272	0.927	2.4	2.35
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent0	0.000804	0.0016	0.000869	0.0703	0.137	0.0741
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent1	0.0019	0.00481	0.00183	0.164	0.403	0.154
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent0	0.0201	0.0412	0.0187	1.76	3.47	1.55
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent1	0.0244	0.0825	0.0352	2.23	7.53	3.19

0.0131	0.0265	0.0142	1.09	2.15	1.16
0.0197	0.0849	0.0332	1.63	7.03	2.75
0.00179	0.00516	0.00182	0.159	0.461	0.162
0.00901	0.0187	0.00644	0.81	1.61	0.55
0.00178	0.00354	0.00145	0.206	0.394	0.166
0.00769	0.0197	0.00802	0.771	1.94	0.825
0.00879	0.0173	0.00574	0.901	1.77	0.587
0.0247	0.0572	0.0233	2.49	5.47	2.17
0.0539	0.116	0.0471	4.72	10.1	4.02
0.176	0.455	0.189	15.5	39.2	16.0
0.0141	0.0366	0.014	1.26	3.22	1.23
0.0409	0.101	0.0403	3.6	8.72	3.48
0.0311	0.0834	0.0306	2.71	7.11	2.59
0.033	0.0786	0.0295	3.13	7.63	2.88
0.00693	0.0163	0.00628	0.661	1.43	0.526
	0.0197 0.00179 0.00901 0.00178 0.00769 0.00879 0.0247 0.0539 0.176 0.0141 0.0409 0.0311 0.033	0.0197 0.0849 0.00179 0.00516 0.00901 0.0187 0.00178 0.00354 0.00769 0.0197 0.00879 0.0173 0.0572 0.0539 0.116 0.455 0.0141 0.0366 0.0409 0.101 0.0311 0.0834 0.033 0.0786	0.0197 0.0849 0.0332 0.00179 0.00516 0.00182 0.00901 0.0187 0.00644 0.00178 0.00354 0.00145 0.00769 0.0197 0.00802 0.00879 0.0173 0.00574 0.0247 0.0572 0.0233 0.0539 0.116 0.0471 0.176 0.455 0.189 0.0141 0.0366 0.014 0.0409 0.101 0.0403 0.031 0.0834 0.0306 0.033 0.0786 0.0295	0.0197 0.0849 0.0332 1.63 0.00179 0.00516 0.00182 0.159 0.00901 0.0187 0.00644 0.81 0.00178 0.00354 0.00145 0.206 0.00769 0.0197 0.00802 0.771 0.00879 0.0173 0.00574 0.901 0.0247 0.0572 0.0233 2.49 0.0539 0.116 0.0471 4.72 0.176 0.455 0.189 15.5 0.0141 0.0366 0.014 1.26 0.0409 0.101 0.0403 3.6 0.0311 0.0834 0.0306 2.71 0.033 0.0786 0.0295 3.13	0.0197 0.0849 0.0332 1.63 7.03 0.00179 0.00516 0.00182 0.159 0.461 0.00901 0.0187 0.00644 0.81 1.61 0.00178 0.00354 0.00145 0.206 0.394 0.00769 0.0197 0.00802 0.771 1.94 0.00879 0.0173 0.00574 0.901 1.77 0.0247 0.0572 0.0233 2.49 5.47 0.0539 0.116 0.0471 4.72 10.1 0.176 0.455 0.189 15.5 39.2 0.0141 0.0366 0.014 1.26 3.22 0.0409 0.101 0.0403 3.6 8.72 0.0311 0.0834 0.0306 2.71 7.11 0.033 0.0786 0.0295 3.13 7.63

pat156lefticalongcont 20100113095826 Cycle1 MeshComponent1	0.0142	0.0316	0.0116	1.26	2.78	1.01
pat156rightbulblongcont 20100113093433 Cycle0 MeshComponent0	0.0357	0.0987	0.0462	3.2	8.87	4.17
pat156rightbulblongcont 20100113093433 Cycle1 MeshComponent0	0.0672	0.168	0.0863	5.82	14.3	7.35
pat156righticalongcont 20100113094331 Cycle0 MeshComponent0	0.115	0.281	0.24	10.2	25.4	20.8
pat156righticalongcont 20100113094331 Cycle1 MeshComponent0	0.0922	0.235	0.183	8.21	21.8	15.8
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent0	0.0174	0.0382	0.0137	1.61	3.34	1.15
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent1	0.0155	0.0339	0.0138	1.4	2.98	1.18
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent0	0.017	0.0404	0.0159	1.64	3.42	1.32
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent1	0.0138	0.0274	0.0123	1.21	2.32	1.01
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent0	0.0172	0.0409	0.0219	1.59	3.65	2.0
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent1	0.0204	0.0484	0.0283	2.02	4.92	2.71
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent0	0.0164	0.0401	0.0166	1.46	3.48	1.42
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent1	0.0448	0.0879	0.0472	3.93	7.36	3.94
pat157righticalongcont 20100111090329 Cycle0 MeshComponent0	0.0138	0.0307	0.0136	1.18	2.5	1.1
pat157righticalongcont 20100111090329 Cycle0 MeshComponent1	0.0479	0.128	0.0605	4.11	10.8	5.09

pat157righticalongcont 20100111090329 Cycle1 MeshComponent0	0.00982	0.0176	0.0126	0.953	1.6	1.04
pat157righticalongcont 20100111090329 Cycle1 MeshComponent1	0.0332	0.0882	0.0411	3.04	7.87	3.66
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent0	0.00863	0.018	0.00626	0.604	1.19	0.408
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent1	0.0652	0.151	0.0547	4.36	9.58	3.36
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent2	0.0183	0.0395	0.0159	1.4	2.82	1.17
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent0	0.00789	0.0145	0.00987	0.601	1.08	0.664
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent1	0.0446	0.112	0.0422	3.21	8.26	2.99
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent2	0.0247	0.0489	0.0163	1.84	3.48	1.14
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent0	0.00846	0.0177	0.00766	0.565	1.19	0.505
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent1	0.0323	0.0512	0.0161	2.38	3.66	1.13
pat158lefticalongcont 20100315133214 Cycle1 MeshComponent0	0.00441	0.0109	0.00607	0.292	0.71	0.388

 Table B.4: Total strain energy estimates.

ROI identification	1	Peak-to- peak 90th percentile	1	derivative mean		Sum of absolute derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.00679	0.0121	0.00404	0.615	1.04	0.33

0.00799	0.0168	0.00615	0.746	1.48	0.498
0.00794	0.0179	0.00613	0.702	1.49	0.513
0.00958	0.0167	0.0056	0.969	1.54	0.457
0.00741	0.0121	0.00343	0.637	1.02	0.278
0.0107	0.0174	0.0046	0.939	1.43	0.36
0.00827	0.0142	0.00441	0.707	1.21	0.377
0.0111	0.0199	0.0059	0.967	1.65	0.467
0.00951	0.0156	0.00487	0.842	1.39	0.42
0.02	0.0429	0.0172	1.73	3.53	1.38
0.00614	0.0102	0.00276	0.52	0.838	0.223
0.0107	0.0194	0.00615	0.908	1.62	0.504
0.0432	0.0814	0.0262	3.68	6.8	2.16
0.0142	0.0215	0.00797	1.3	1.94	0.652
0.0368	0.0731	0.0263	3.12	6.13	2.18
0.0159	0.0261	0.00791	1.48	2.24	0.622
	0.00794 0.00794 0.00958 0.00741 0.0107 0.00827 0.0111 0.00951 0.02 0.00614 0.0107 0.0432 0.0142 0.0368	0.00794 0.0179 0.00958 0.0167 0.00741 0.0121 0.0107 0.0174 0.00827 0.0142 0.0111 0.0199 0.00951 0.0156 0.02 0.0429 0.00614 0.0102 0.0107 0.0194 0.0432 0.0814 0.0142 0.0215 0.0368 0.0731	0.00794 0.0179 0.00613 0.00958 0.0167 0.0056 0.00741 0.0121 0.00343 0.0107 0.0174 0.0046 0.00827 0.0142 0.00441 0.0111 0.0199 0.0059 0.00951 0.0156 0.00487 0.02 0.0429 0.0172 0.00614 0.0102 0.00276 0.0107 0.0194 0.00615 0.0432 0.0814 0.0262 0.0142 0.0215 0.00797 0.0368 0.0731 0.0263	0.00794 0.0179 0.00613 0.702 0.00958 0.0167 0.0056 0.969 0.00741 0.0121 0.00343 0.637 0.0107 0.0174 0.0046 0.939 0.00827 0.0142 0.00441 0.707 0.0111 0.0199 0.0059 0.967 0.00951 0.0156 0.00487 0.842 0.02 0.0429 0.0172 1.73 0.00614 0.0102 0.00276 0.52 0.0107 0.0194 0.00615 0.908 0.0432 0.0814 0.0262 3.68 0.0142 0.0215 0.00797 1.3 0.0368 0.0731 0.0263 3.12	0.00794 0.0179 0.00613 0.702 1.49 0.00958 0.0167 0.0056 0.969 1.54 0.00741 0.0121 0.00343 0.637 1.02 0.0107 0.0174 0.0046 0.939 1.43 0.00827 0.0142 0.00441 0.707 1.21 0.0111 0.0199 0.0059 0.967 1.65 0.00951 0.0156 0.00487 0.842 1.39 0.02 0.0429 0.0172 1.73 3.53 0.00614 0.0102 0.00276 0.52 0.838 0.0107 0.0194 0.00615 0.908 1.62 0.0432 0.0814 0.0262 3.68 6.8 0.0142 0.0215 0.00797 1.3 1.94 0.0368 0.0731 0.0263 3.12 6.13

pat154lefticalongcont 20091019093212 Cycle0 MeshComponent0	0.0128	0.0212	0.00566	1.01	1.65	0.423
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent1	0.0108	0.0177	0.00604	1.02	1.57	0.495
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent0	0.00303	0.00573	0.0019	0.414	0.867	0.278
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent1	0.00338	0.00881	0.00327	0.468	1.18	0.463
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent0	0.0413	0.072	0.0217	3.86	6.47	1.9
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent1	0.0479	0.0829	0.0265	4.49	7.48	2.15
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent0	0.0532	0.099	0.0316	4.68	8.43	2.57
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent1	0.0723	0.129	0.0446	6.48	11.2	3.75
pat156leftbulblongcont 20100113095320 Cycle0 MeshComponent0	0.0179	0.0333	0.0105	2.06	4.04	1.32
pat156leftbulblongcont 20100113095320 Cycle1 MeshComponent0	0.029	0.0582	0.0188	2.7	5.3	1.61
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent0	0.034	0.0551	0.0133	3.1	5.15	1.24
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent1	0.0212	0.0328	0.0091	2.13	3.46	0.857
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent0	0.024	0.0407	0.0122	2.04	3.33	0.971
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent1	0.0185	0.0267	0.00622	1.85	2.51	0.493
pat156rightbulblongcont 20100113093433 Cycle0 MeshComponent0	0.0491	0.089	0.0284	4.48	7.95	2.54

				-		
pat156rightbulblongcont 20100113093433 Cycle1 MeshComponent0	0.0511	0.0944	0.031	4.52	8.06	2.59
pat156righticalongcont 20100113094331 Cycle0 MeshComponent0	0.0976	0.195	0.0644	8.69	17.0	5.4
pat156righticalongcont 20100113094331 Cycle1 MeshComponent0	0.0828	0.163	0.0465	7.22	13.5	3.76
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent0	0.0305	0.0549	0.0159	2.69	4.39	1.11
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent1	0.0242	0.04	0.0107	2.28	3.49	0.878
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent0	0.0307	0.0539	0.0158	2.7	4.29	1.14
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent1	0.0246	0.0384	0.01	2.27	3.46	0.833
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent0	0.0337	0.0616	0.0241	3.07	5.78	2.14
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent1	0.0288	0.0472	0.0176	2.73	4.7	1.61
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent0	0.0328	0.0567	0.0194	2.93	4.96	1.59
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent1	0.033	0.0588	0.0204	2.99	5.3	1.73
pat157righticalongcont 20100111090329 Cycle0 MeshComponent0	0.0275	0.0531	0.0174	2.39	4.44	1.38
pat157righticalongcont 20100111090329 Cycle0 MeshComponent1	0.0286	0.0443	0.0149	2.51	3.8	1.27
pat157righticalongcont 20100111090329 Cycle1 MeshComponent0	0.0298	0.0588	0.0195	2.77	5.15	1.61
pat157righticalongcont 20100111090329 Cycle1 MeshComponent1	0.0374	0.0684	0.0221	3.45	6.5	1.98

pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent0	0.0257	0.0414	0.0156	2.0	3.16	1.12
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent1	0.0699	0.108	0.0363	4.72	7.14	2.23
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent2	0.0319	0.0416	0.00784	2.6	3.27	0.529
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent0	0.0275	0.0654	0.0222	1.77	3.97	1.32
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent1	0.0524	0.0831	0.0224	3.6	5.49	1.4
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent2	0.0311	0.0481	0.0126	2.4	3.9	0.916
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent0	0.0166	0.026	0.00672	1.1	1.69	0.428
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent1	0.0872	0.122	0.0335	5.64	7.82	2.04
pat158lefticalongcont 20100315133214 Cycle1 MeshComponent0	0.0139	0.0241	0.00665	0.969	1.66	0.432

 Table B.5: Lateral strain estimates.

ROI identification	1	Peak-to- peak 90th percentile	1	derivative mean	Sum of absolute derivative 90th percentile	Sum of absolute derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.00783	0.0127	0.00403	0.731	1.13	0.338
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent1	0.0121	0.0207	0.00643	1.09	1.82	0.531
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent0	0.00805	0.0122	0.00388	0.755	1.14	0.35

pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent1	0.0183	0.0285	0.0156	1.64	2.6	1.31
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent0	0.0122	0.0221	0.00909	1.05	1.84	0.826
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent1	0.0164	0.0293	0.00972	1.37	2.39	0.768
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent0	0.0123	0.0251	0.00839	1.07	2.14	0.684
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent1	0.016	0.0316	0.0119	1.38	2.68	0.998
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent0	0.0157	0.0239	0.00663	1.34	2.13	0.587
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent1	0.0268	0.0521	0.0344	2.33	4.84	2.84
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent0	0.0108	0.019	0.00611	0.918	1.59	0.501
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent1	0.0172	0.0364	0.0117	1.46	3.01	0.946
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent0	0.0644	0.105	0.0322	5.52	8.66	2.6
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent1	0.0556	0.141	0.0495	5.08	12.3	4.38
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent0	0.046	0.075	0.023	3.86	6.14	1.86
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent1	0.0471	0.128	0.0435	4.13	10.9	3.64
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent0	0.0171	0.0328	0.00913	1.41	2.62	0.713
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent1	0.0231	0.0339	0.00843	2.07	2.87	0.622

pat154lefticalongcont 20091019093212 Cycle1 MeshComponent0	0.00517	0.01	0.00436	0.762	1.46	0.568
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent1	0.00827	0.0182	0.00676	1.07	2.3	0.841
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent0	0.0558	0.0917	0.0241	5.12	8.24	2.02
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent1	0.0727	0.136	0.0407	6.97	12.6	3.64
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent0	0.0875	0.141	0.0394	7.57	12.0	3.23
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent1	0.158	0.278	0.0796	14.0	23.7	6.62
pat156leftbulblongcont 20100113095320 Cycle0 MeshComponent0	0.0304	0.0523	0.0157	3.23	5.67	1.71
pat156leftbulblongcont 20100113095320 Cycle1 MeshComponent0	0.0603	0.108	0.0359	5.5	10.0	3.18
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent0	0.0582	0.108	0.0295	5.38	9.31	2.37
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent1	0.052	0.0938	0.028	5.15	9.53	2.83
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent0	0.0281	0.0416	0.00992	2.63	3.85	0.846
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent1	0.0314	0.0602	0.0171	3.05	5.6	1.52
pat156rightbulblongcont 20100113093433 Cycle0 MeshComponent0	0.0698	0.135	0.0405	6.23	11.7	3.6
pat156rightbulblongcont 20100113093433 Cycle1 MeshComponent0	0.0984	0.181	0.0615	8.58	15.5	5.2
pat156righticalongcont 20100113094331 Cycle0 MeshComponent0	0.104	0.242	0.108	9.2	21.9	9.35

pat156righticalongcont 20100113094331 Cycle1 MeshComponent0	0.0883	0.196	0.088	7.85	17.2	7.37
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent0	0.0768	0.125	0.0331	6.55	10.5	2.66
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent1	0.0617	0.11	0.0355	5.23	8.99	2.72
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent0	0.0829	0.136	0.0379	6.78	10.9	2.89
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent1	0.0675	0.106	0.0306	5.63	8.43	2.24
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent0	0.0495	0.0889	0.0288	4.51	7.82	2.51
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent1	0.071	0.135	0.0521	6.61	12.7	4.36
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent0	0.053	0.0965	0.0291	4.61	8.18	2.39
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent1	0.0839	0.156	0.0502	7.31	12.9	4.1
pat157righticalongcont 20100111090329 Cycle0 MeshComponent0	0.0472	0.0762	0.0217	4.01	6.25	1.68
pat157righticalongcont 20100111090329 Cycle0 MeshComponent1	0.0842	0.168	0.0568	7.13	14.0	4.66
pat157righticalongcont 20100111090329 Cycle1 MeshComponent0	0.0411	0.0725	0.0232	3.8	6.29	1.78
pat157righticalongcont 20100111090329 Cycle1 MeshComponent1	0.0779	0.147	0.0444	7.07	13.0	3.82
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent0	0.0358	0.0542	0.0126	2.84	4.2	0.938
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent1	0.12	0.207	0.0572	8.43	14.0	3.55

pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent2	0.046	0.0658	0.0157	3.6	4.86	1.01
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent0	0.0387	0.0678	0.0243	2.54	3.95	1.38
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent1	0.0877	0.159	0.0458	5.95	10.0	2.68
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent2	0.0498	0.067	0.0149	3.82	4.76	0.83
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent0	0.0272	0.045	0.0122	1.8	2.91	0.764
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent1	0.066	0.0944	0.0224	4.47	6.12	1.35
pat158lefticalongcont 20100315133214 Cycle1 MeshComponent0	0.0267	0.0491	0.015	1.93	3.29	1.03

Table B.6: Shear strain estimates.

ROI identification	Peak-to- peak mean	Peak-to- peak 90th percentile	1	Sum of absolute derivative mean	Sum of absolute derivative 90th percentile	Sum of absolute derivative std. dev.
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent0	0.00704	0.0135	0.00512	0.633	1.21	0.442
pat153leftbulblongcont 20091007093219 Cycle0 MeshComponent1	0.0174	0.0429	0.0158	1.5	3.67	1.34
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent0	0.00651	0.0112	0.00488	0.575	0.951	0.403
pat153leftbulblongcont 20091007093219 Cycle1 MeshComponent1	0.0207	0.0535	0.0228	1.75	4.53	1.92
pat153lefticalongcont 20091007093955 Cycle0 MeshComponent0	0.00634	0.0119	0.00551	0.537	0.986	0.489

pat153lefticalongcont 20091007093955 Cycle0 MeshComponent1	0.0134	0.0284	0.0107	1.14	2.35	0.879
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent0	0.00599	0.011	0.00386	0.511	0.922	0.32
pat153lefticalongcont 20091007093955 Cycle1 MeshComponent1	0.0129	0.0293	0.0105	1.09	2.48	0.886
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent0	0.0114	0.021	0.0063	0.943	1.7	0.51
pat153lefticalongcont 20091007094020 Cycle0 MeshComponent1	0.0172	0.0378	0.0192	1.46	3.22	1.56
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent0	0.00933	0.0173	0.00547	0.781	1.45	0.455
pat153lefticalongcont 20091007094020 Cycle1 MeshComponent1	0.0113	0.0284	0.0111	0.955	2.36	0.914
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent0	0.0515	0.105	0.0378	4.34	8.79	3.14
pat153rightbulblongcont 20091007085547 Cycle0 MeshComponent1	0.0233	0.0451	0.017	2.0	3.75	1.39
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent0	0.0474	0.0958	0.0323	4.02	8.08	2.71
pat153rightbulblongcont 20091007085547 Cycle1 MeshComponent1	0.0185	0.0327	0.0137	1.6	2.86	1.15
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent0	0.00565	0.00983	0.00334	0.475	0.799	0.267
pat154lefticalongcont 20091019093212 Cycle0 MeshComponent1	0.0632	0.106	0.0304	5.29	8.87	2.54
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent0	0.0124	0.0196	0.00576	1.82	2.98	0.836
pat154lefticalongcont 20091019093212 Cycle1 MeshComponent1	0.0141	0.0221	0.00588	1.82	2.78	0.704

pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent0	0.0307	0.0563	0.0166	2.65	4.91	1.41
pat154rightbulblongcont 20091019090048 Cycle0 MeshComponent1	0.0748	0.174	0.0625	6.56	14.9	5.28
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent0	0.0382	0.0753	0.0246	3.28	6.39	2.04
pat154rightbulblongcont 20091019090048 Cycle1 MeshComponent1	0.137	0.246	0.0807	12.0	21.2	6.81
pat156leftbulblongcont 20100113095320 Cycle0 MeshComponent0	0.0316	0.0802	0.0284	2.82	6.73	2.26
pat156leftbulblongcont 20100113095320 Cycle1 MeshComponent0	0.0362	0.0584	0.0255	3.48	6.4	2.3
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent0	0.0191	0.0321	0.00923	1.84	2.89	0.764
pat156lefticalongcont 20100113095826 Cycle0 MeshComponent1	0.0297	0.0495	0.0131	2.97	4.26	1.05
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent0	0.0176	0.0361	0.0113	1.51	2.87	0.857
pat156lefticalongcont 20100113095826 Cycle1 MeshComponent1	0.0214	0.0304	0.0129	1.88	2.7	1.09
pat156rightbulblongcont 20100113093433 Cycle0 MeshComponent0	0.037	0.0751	0.0243	3.23	6.53	2.05
pat156rightbulblongcont 20100113093433 Cycle1 MeshComponent0	0.0378	0.0584	0.0264	3.33	4.95	2.16
pat156righticalongcont 20100113094331 Cycle0 MeshComponent0	0.0586	0.147	0.0632	5.05	12.8	5.45
pat156righticalongcont 20100113094331 Cycle1 MeshComponent0	0.0582	0.144	0.0617	4.94	12.0	5.18
pat157lefticalongcont 20100111092227 Cycle0 MeshComponent0	0.0564	0.105	0.0331	5.55	9.63	3.0

pat157lefticalongcont 20100111092227 Cycle0 MeshComponent1	0.0341	0.077	0.0274	3.02	6.82	2.34
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent0	0.0547	0.103	0.0328	5.24	9.98	3.09
pat157lefticalongcont 20100111092227 Cycle1 MeshComponent1	0.0316	0.0701	0.026	2.88	6.36	2.28
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent0	0.0229	0.0441	0.0177	1.94	3.73	1.47
pat157rightbulblongcont 20100111085732 Cycle0 MeshComponent1	0.0551	0.0961	0.0337	4.68	8.0	2.74
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent0	0.0242	0.0545	0.0233	2.04	4.37	1.92
pat157rightbulblongcont 20100111085732 Cycle1 MeshComponent1	0.0538	0.114	0.0404	4.58	9.52	3.32
pat157righticalongcont 20100111090329 Cycle0 MeshComponent0	0.031	0.0538	0.0176	2.57	4.5	1.43
pat157righticalongcont 20100111090329 Cycle0 MeshComponent1	0.0433	0.0825	0.0277	3.6	6.89	2.27
pat157righticalongcont 20100111090329 Cycle1 MeshComponent0	0.0302	0.0484	0.0152	2.55	4.04	1.24
pat157righticalongcont 20100111090329 Cycle1 MeshComponent1	0.037	0.0635	0.0193	3.19	5.36	1.57
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent0	0.0256	0.0486	0.0168	1.98	3.91	1.3
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent1	0.101	0.225	0.0741	7.36	14.6	4.46
pat158leftbulblongcont 20100315132656 Cycle0 MeshComponent2	0.0711	0.161	0.0562	4.65	10.4	3.54
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent0	0.0289	0.0591	0.0228	1.78	3.4	1.29

pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent1	0.0964	0.185	0.0572	5.99	11.0	3.31
pat158leftbulblongcont 20100315132656 Cycle1 MeshComponent2	0.0422	0.0779	0.0243	2.92	5.43	1.67
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent0	0.0148	0.025	0.00918	0.965	1.59	0.565
pat158lefticalongcont 20100315133214 Cycle0 MeshComponent1	0.103	0.165	0.052	6.57	10.6	3.26
pat158lefticalongcont 20100315133214 Cycle1 MeshComponent0	0.0142	0.0314	0.0113	0.975	1.97	0.691

Table B.7: Axial strain estimates.