Supplementary Material

Below tables are the following model parameters obtained from the calibration against experimental data using different assumptions of time-dependencies of the Poisson's ratios.

Table A1 Model parameters with fully time-dependent Poisson's ratio calibrated against experimental data from Ozyhar et al (2013).

	C_{ij}^{∞}	C_{ij}^{1}	τ_{ij}^{1}	C_{ij}^{2}	τ_{ij}^{2}
C11	1.0005e+04	-1.0041e+03	42.4188	500	0.7000
C22	1.4572e+03	-106.5474	4.7219	200	0.7000
C33	4.54039e+02	-52.0963	5.4197	70	0.9000
C12	9.665098e+02	-752.7552	11.3303	0	0
C13	4.642879e+02	-415.7962	10.7992	0	0
C23	3.613703e+02	-149.4332	7.7182	0	0

Table A2 Model parameters with constant Poisson's ratio calibrated against experimental data from Ozyhar et al (2013).

	C_{ij}^{∞}	C_{ij}^{1}	τ_{ij}^{1}	C_{ij}^{2}	τ_{ij}^{2}
C11	8.7531e+03	5.6942e+02	6.3518e-01	4.0182e+02	1.2068e+01
C22	0	1.7520e+02	1.0100e+00	1.3880e+03	3.2165e+02
C33	0	5.3150e+01	1.0837e+00	4.5400e+02	6.8446e+02
C12	-2.9452e+04	3.8940e+01	1.0127e+00	2.9997e+04	2.4203e+05
C13	2.4926e+02	-6.9845e+02	3.0455e+00	7.0612e+02	2.9397e+00
C23	3.2271e+02	-1.8541e+03	3.0072e+00	1.8644e+03	2.9556e+00

Table A3 Model parameters with constant ν_{RL}, ν_{TL} and ν_{RT} Poisson's ratio calibrated against experimental data from Ozyhar et al (2013).

	C_{ij}^{∞}	C_{ij}^{1}	τ_{ij}^{1}	C_{ij}^{2}	τ_{ij}^{2}
C11	9.3917e+03	-5.3884e+02	1.2488e+01	9.0000e+02	7.0000e-01
C22	1.4206e+03	-1.8298e+02	2.3663e+00	2.8437e+02	1.0078e+00
C33	4.7497e+02	-9.8711e+01	2.9622e+00	200	8.0000e-01
C12	1.0389e+03	3.8923e+01	3.6600e-03	-7.4112e+02	1.0466e+01
C13	5.1749e+02	-4.0014e+02	1.0459e+01	4.4728e+01	7.8805e-03
C23	3.8293e+02	1.3983e+02	2.1151e+01	-2.4460e+02	1.1126e+01

Table A4 Model parameters with fully time-dependent Poisson's ratio calibrated against experimental data of Endo and de Carvalho Pereira (2017).

	C_{ij}^{∞}	C_{ij}^{1}	τ_{ij}^{1}	C_{ij}^{2}	τ_{ij}^{2}
C11	7.2133e+03	2.1921e+04	2.2372e+04	2.0553e+03	4.4147e+05
C22	5.3423e+03	1.6586e+04	2.8026e+04	1.7643e+03	4.8026e+05
C33	5.3423e+03	1.6586e+04	2.8026e+04	1.7643e+03	4.8026e+05
C12	3.2064e+03	1.7445e+04	2.3429e+04	1.1532e+03	4.2744e+05
C13	3.2064e+03	1.7445e+04	2.3429e+04	1.1532e+03	4.2744e+05
C23	2.6022e+03	1.4106e+04	2.4836e+04	9.7323e+02	4.4546e+05

Table A5 Model parameters with constant Poisson's ratio calibrated against experimental data of Endo and de Carvalho Pereira (2017).

	C_{ij}^{∞}	C_{ij}^{1}	τ_{ij}^{1}	C_{ij}^{2}	τ_{ij}^{2}
C11	9.3090e+03	1.4087e+04	3.7530e+04	2.6432e+03	5.5428e+05
C22	6.4878e+03	1.4240e+04	3.8164e+04	2.1354e+03	5.6808e+05
C33	6.4878e+03	1.4240e+04	3.8164e+04	2.1354e+03	5.6808e+05
C12	4.9038e+03	1.2089e+04	3.8020e+04	1.6770e+03	5.7141e+05
C13	4.9038e+03	1.2089e+04	3.8020e+04	1.6770e+03	5.7141e+05
C23	3.7542e+03	1.1009e+04	3.7837e+04	1.3672e+03	5.7667e+05