θ-6 Identification for material property t6

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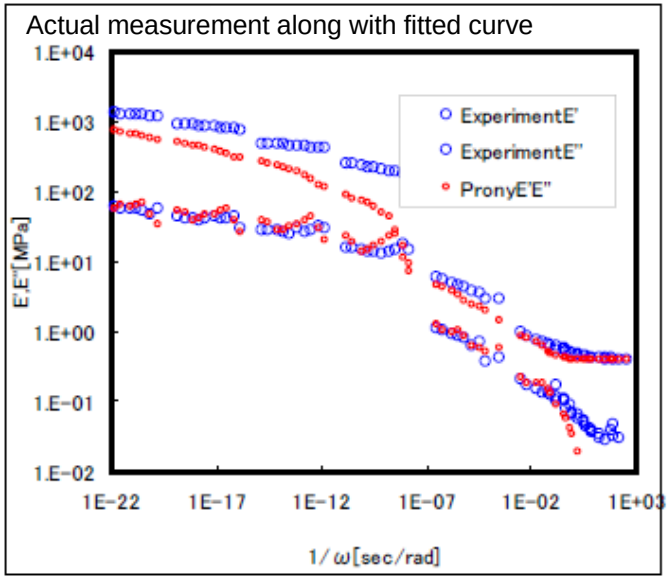
	G[Mpa]	β [1/sec]
∞	1.30E−01	
1	5.04E+01	6.28E+22
2	2.99E+01	3.14E+21
3	3.77E+01	3.14E+20
4	3.03E+01	6.28E+18
5	2.77E+00	3.14E+18
6	2.15E+01	3.14E+17
7	3.25E+01	3.14E+16
8	1.93E+01	6.28E+14
9	4.56E+00	3.14E+14
10	1.32E+01	3.14E+13
11	2.56E+01	3.14E+12
12	1.35E+01	6.28E+10
13	1.31E−02	3.14E+10
14	6.74E+00	3.14E+09
15	1.54E+01	3.14E+08
16	3.72E−01	3.14E+06
17	2.86E−02	1.57E+06
18	5.22E−01	3.14E+05
19	1.99E−01	3.14E+04
20	3.19E−01	3.14E+03
21	5.99E−02	3.14E+02
22	1.02E−01	3.14E+01
23	2.06E−02	3.14E+00
24	3.34E−08	3.14E−01
25	2.45E−10	3.14E−02

	K[Mpa]
∞	1.53E+05

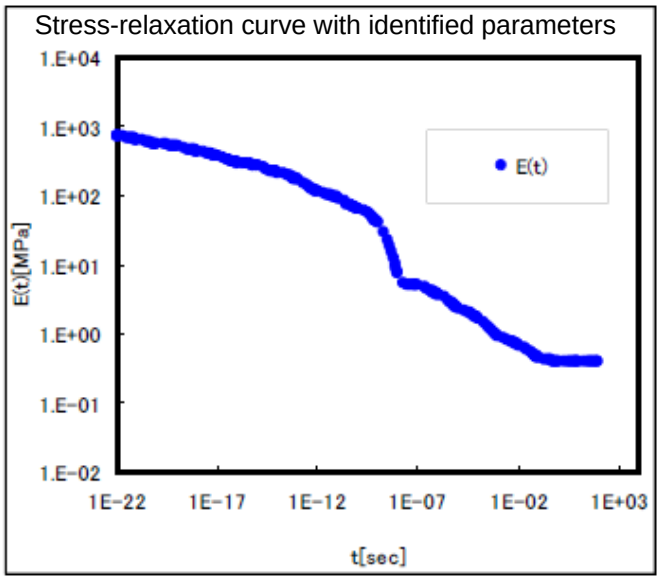
Prony series

$$G(t) = G_\infty + \sum_{i=1}^{N} G_i e^{-\beta_i t}, \quad K(t) = K_\infty$$

Actual measurement along with fitted curve

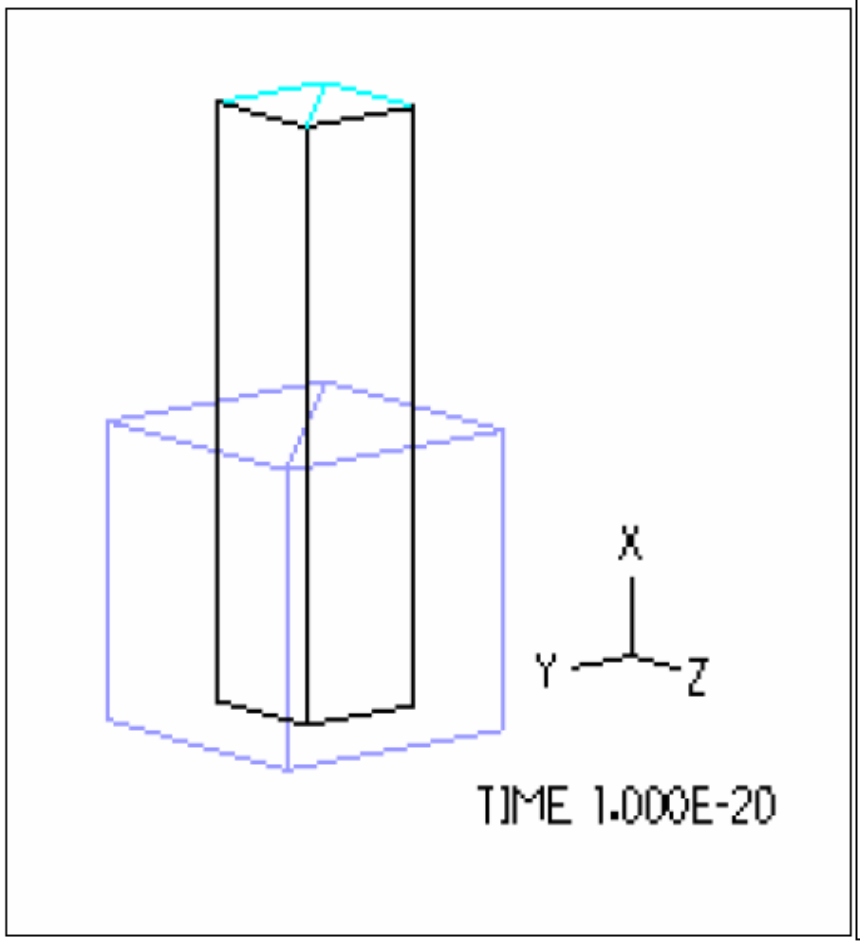


Stress-relaxation curve with identified parameters

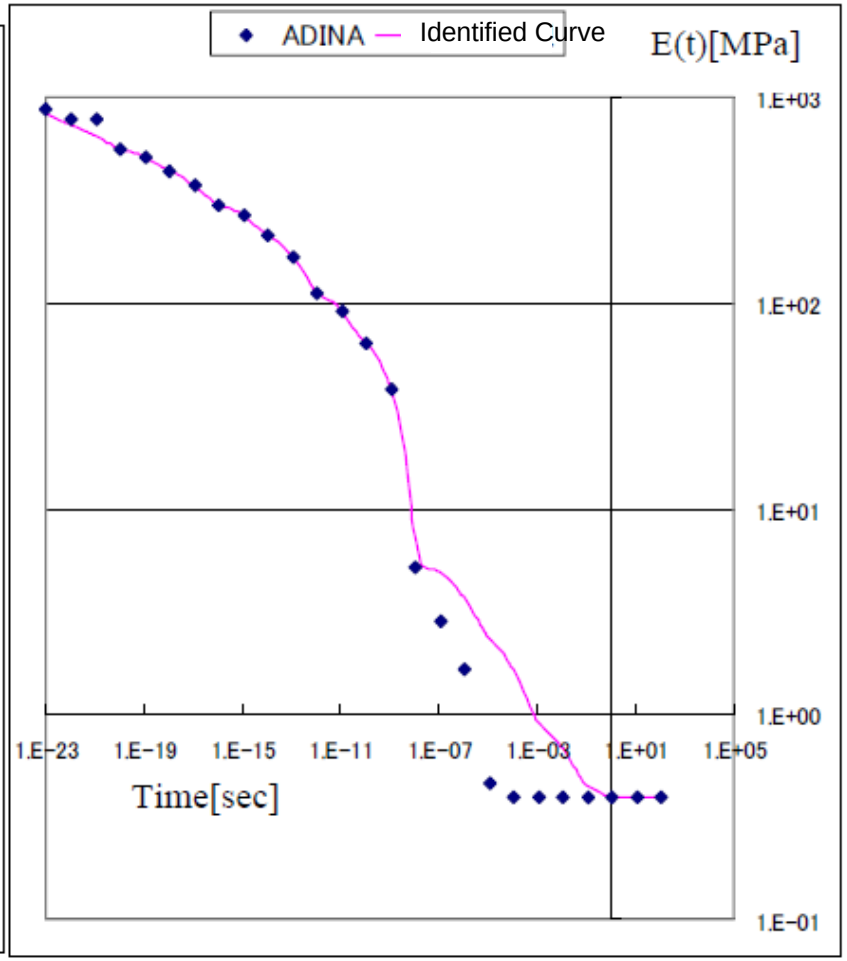


θ-6 Stress-relaxation analysis (relax_t6.in)

ADINA



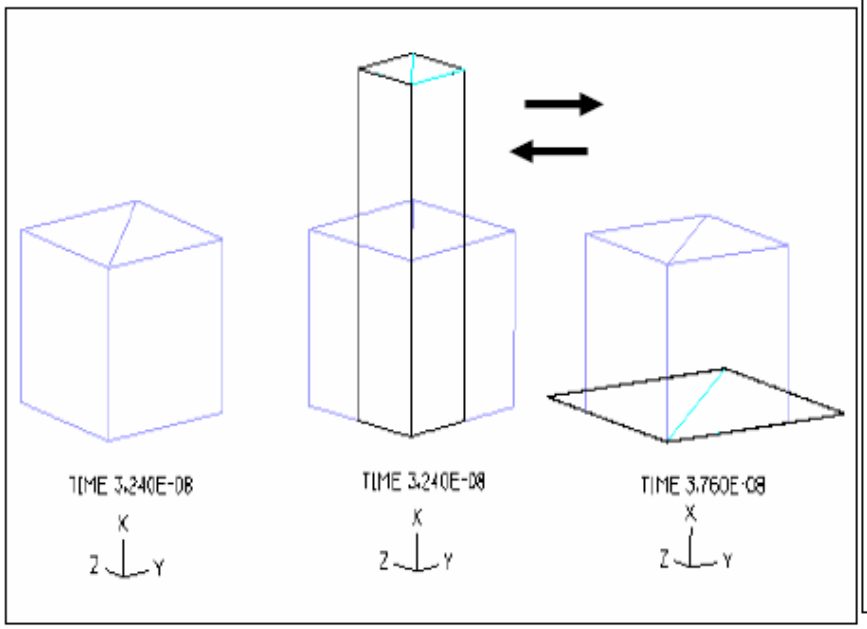
Analysis model



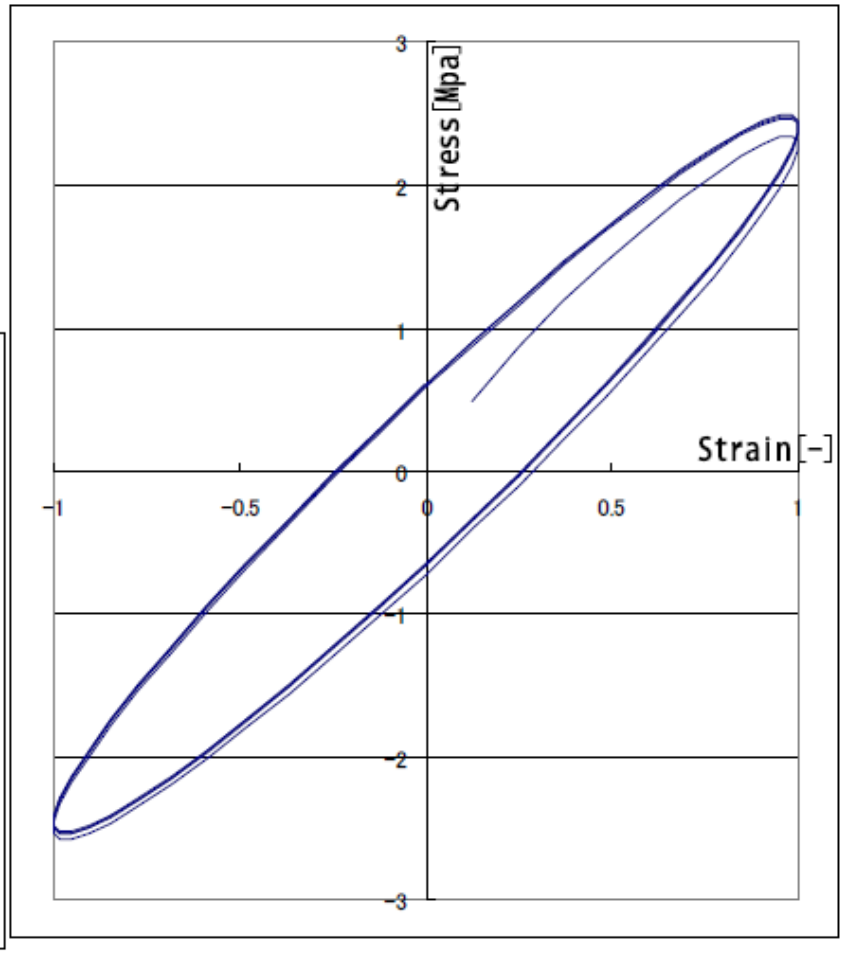
Stress-relaxation curve

θ-6 Harmonic vibration analysis (freq_t6.in)

ADINA



Analysis model



10^4 Hz hysteresis curve