Identification of material property 1hs65
Hardness (65), Damping (Small)

Japan Association for Nonlinear CAE

ADINA

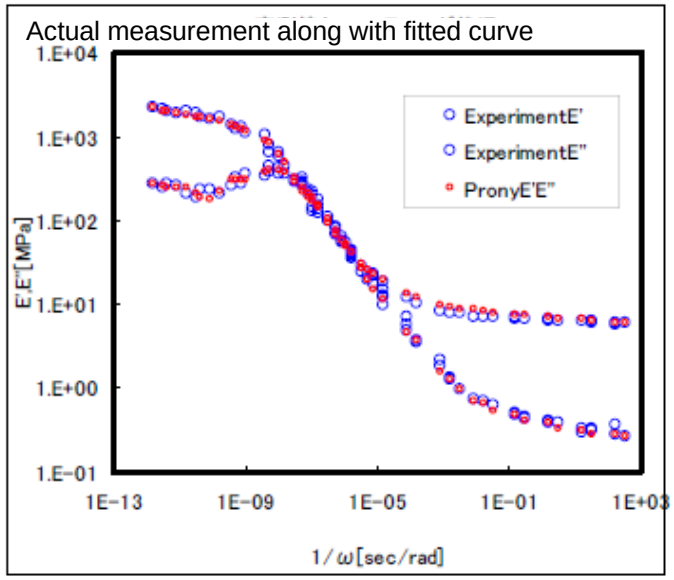
	G[Mpa]	β [1/sec]
∞	1.80E+00	
1	1.57E+02	6.28E+11
2	1.16E+02	6.28E+10
3	1.57E+02	2.51E+09
4	1.35E+02	2.51E+08
5	1.70E+02	6.28E+07
6	5.49E+01	6.28E+06
7	1.12E+01	6.28E+05
8	3.40E+00	6.28E+04
9	1.27E+00	6.28E+03
10	4.18E−01	6.28E+02
11	2.66E−01	6.28E+01
12	2.08E−01	6.28E+00
13	1.72E−01	6.28E−01
14	1.40E−01	6.28E−02
15	1.25E−01	6.28E−03
16	1.65E−01	6.28E−04

	K[Mpa]
∞	4.04E+05

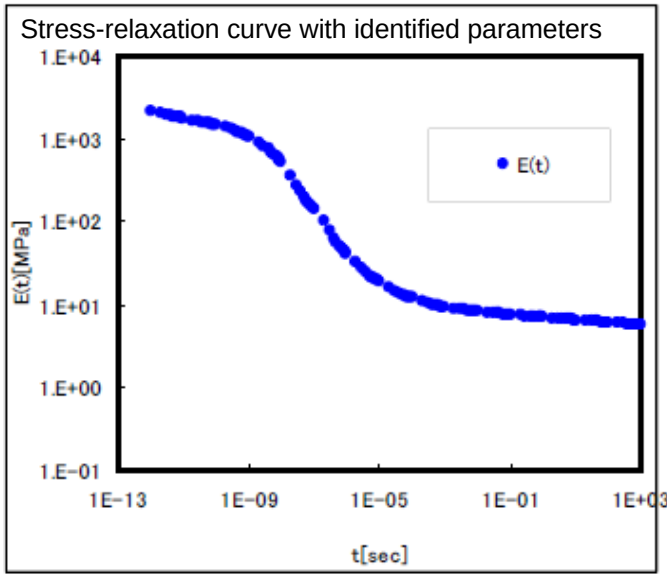
Prony series

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

Actual measurement along with fitted curve



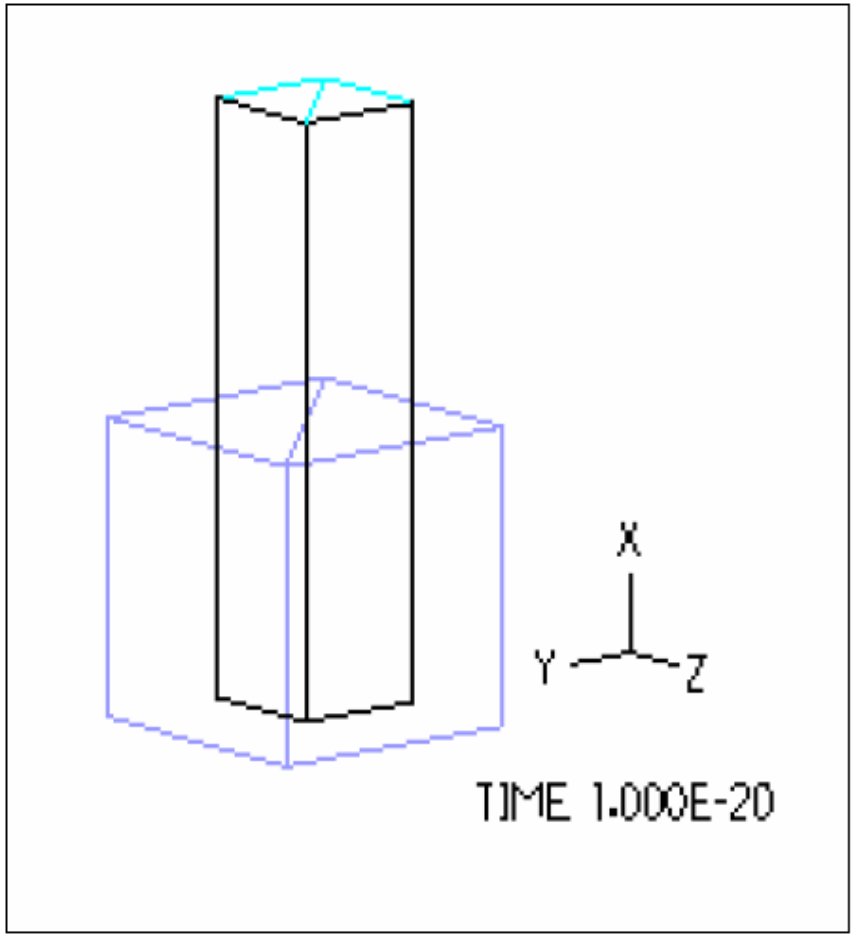
Stress-relaxation curve with identified parameters



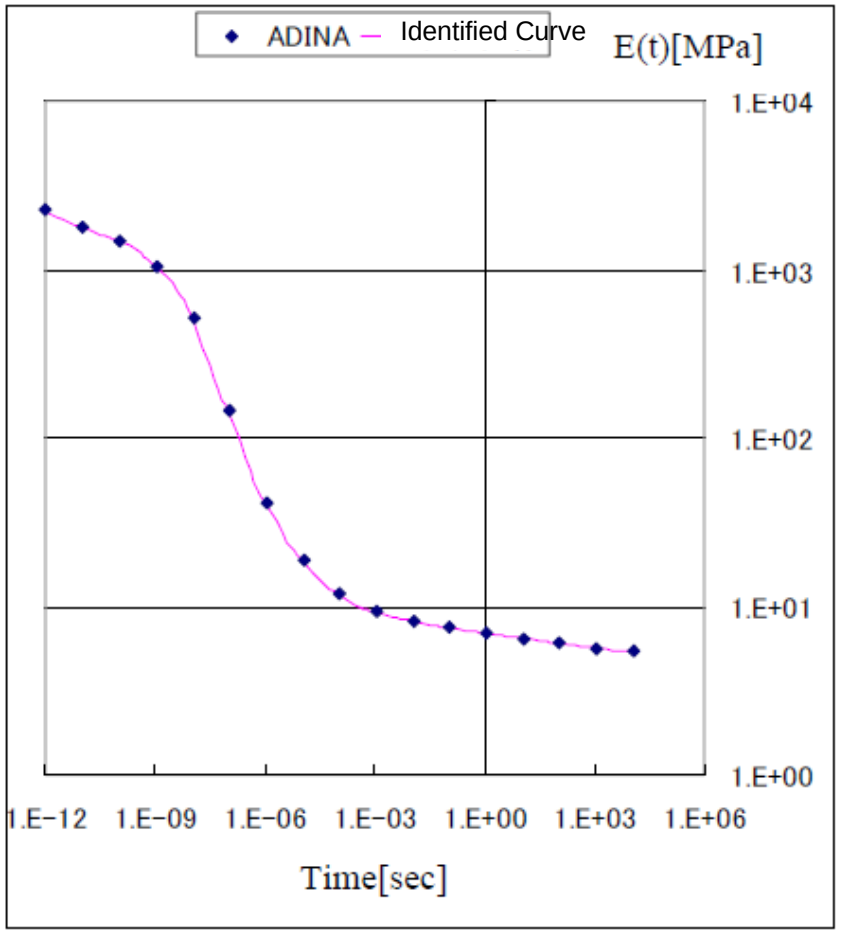
Stress-relaxation analysis (relax_1hs65.in)
Hardness (65), Damping (Small)

Japan Association for Nonlinear CAE

ADINA



Analysis model

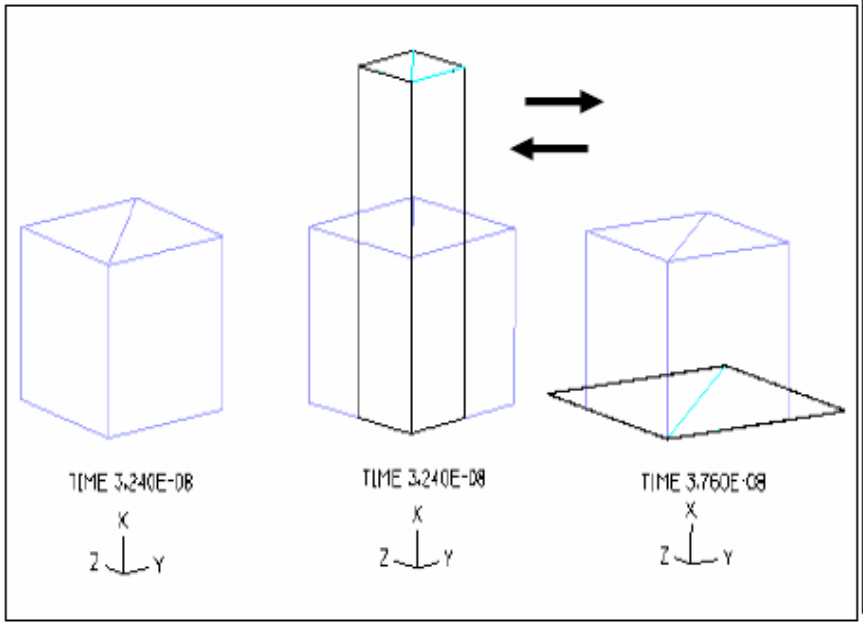


Stress-relaxation curve

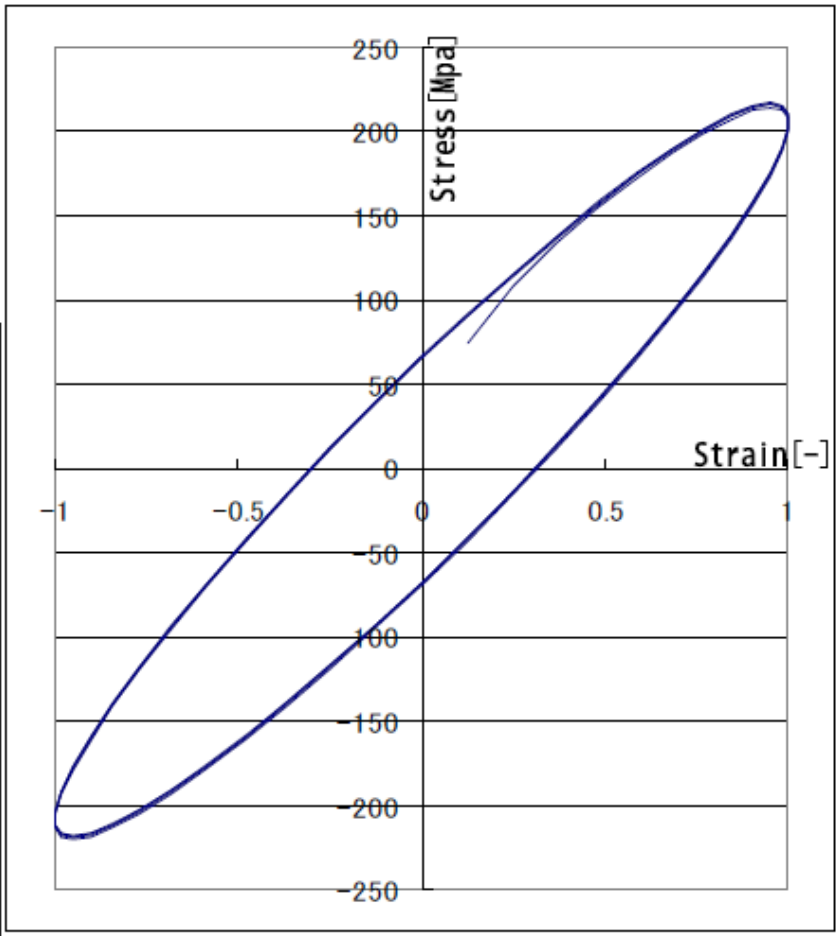
Harmonic vibration analysis (freq_1hs65.in)
Hardness (50), Damping (Small)

Japan Association for Nonlinear CAE

ADINA



Analysis model



10^6 Hz hysteresis curve