

θ6 - Identification of material property

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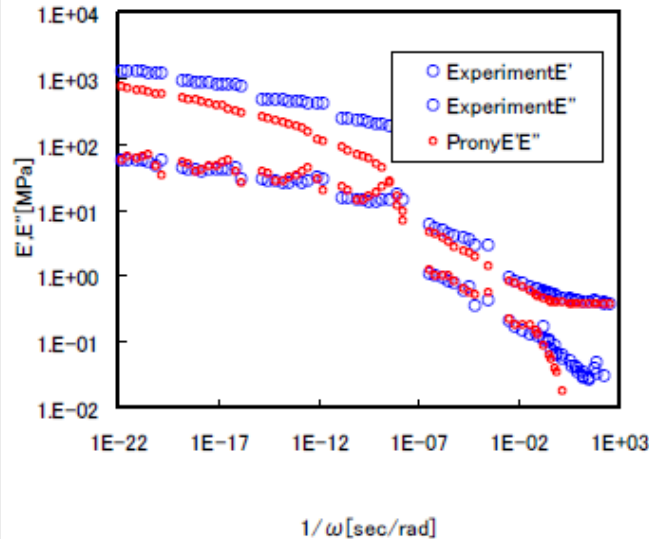
Young's Modulus[MPa]	Poisson's Ratio[-]
9.15301E+02	4.99000E-01

\bar{g}_i^P [MPa]	τ_i^G [sec]
1.65253E-01	1.59155E-23
9.79074E-02	3.18310E-22
1.23535E-01	3.18310E-21
9.91749E-02	1.59155E-19
9.08010E-03	3.18310E-19
7.04485E-02	3.18310E-18
1.06602E-01	3.18310E-17
6.33034E-02	1.59155E-15
1.49494E-02	3.18310E-15
4.33401E-02	3.18310E-14
8.39892E-02	3.18310E-13
4.41652E-02	1.59155E-11
4.30582E-05	3.18310E-11
2.20765E-02	3.18310E-10
5.03864E-02	3.18310E-09
1.22065E-03	3.18310E-07
9.38401E-05	6.36620E-07
1.70947E-03	3.18310E-06
6.51961E-04	3.18310E-05
1.04405E-03	3.18310E-04
1.96381E-04	3.18310E-03
3.34686E-04	3.18310E-02
6.74887E-05	3.18310E-01
1.09315E-10	3.18310E+00
8.02066E-13	3.18310E+01

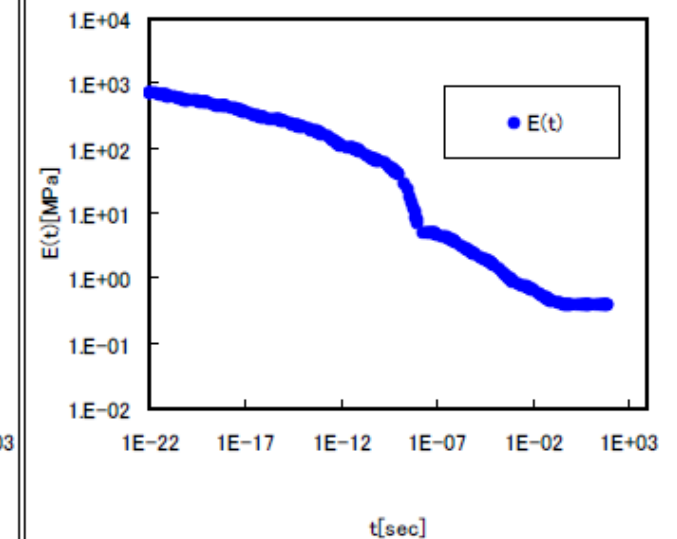
Prony series

$$G(\tau) = G_0 \left\{ 1 - \sum_{i=1}^N \bar{g}_i^P \left(1 - e^{-\tau/\tau_i^G} \right) \right\}, \quad K(\tau) = \infty$$

Actual measurement along with fitted curve

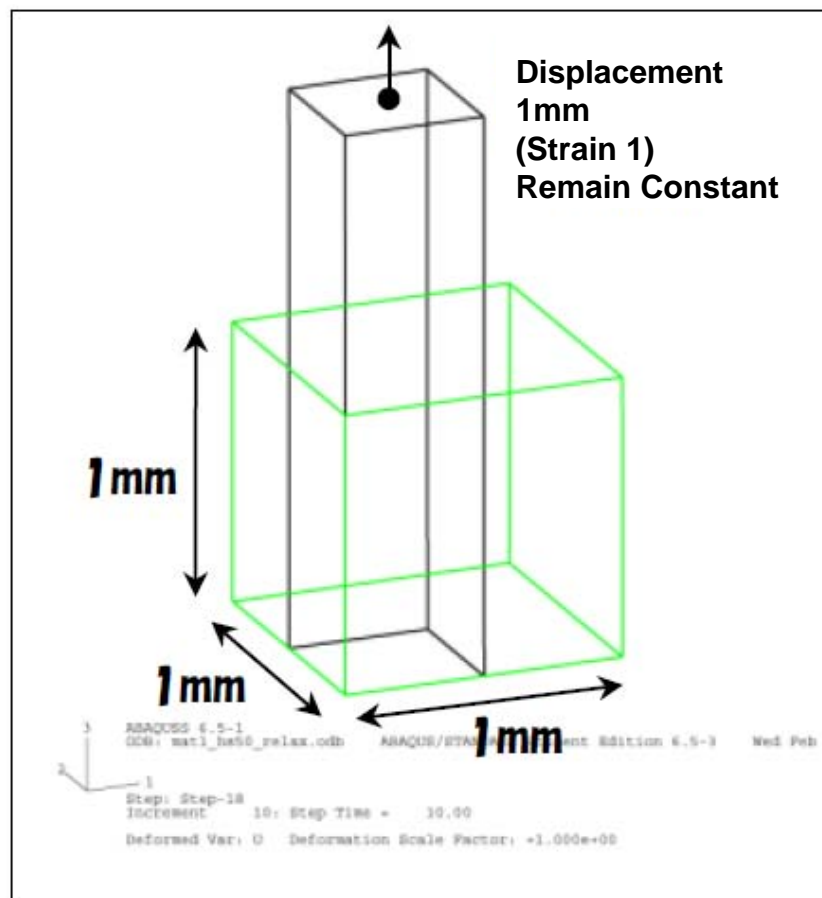


Stress-relaxation curve with identified parameters

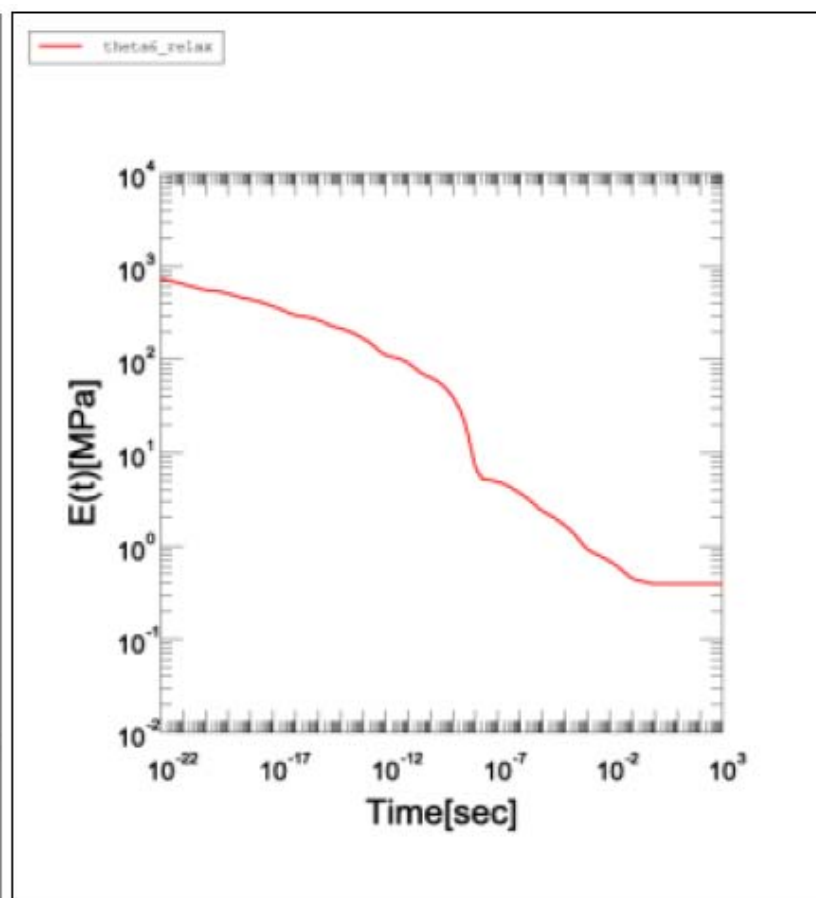


θ 6 Stress-relaxation Analysis : theta6_relax.inp

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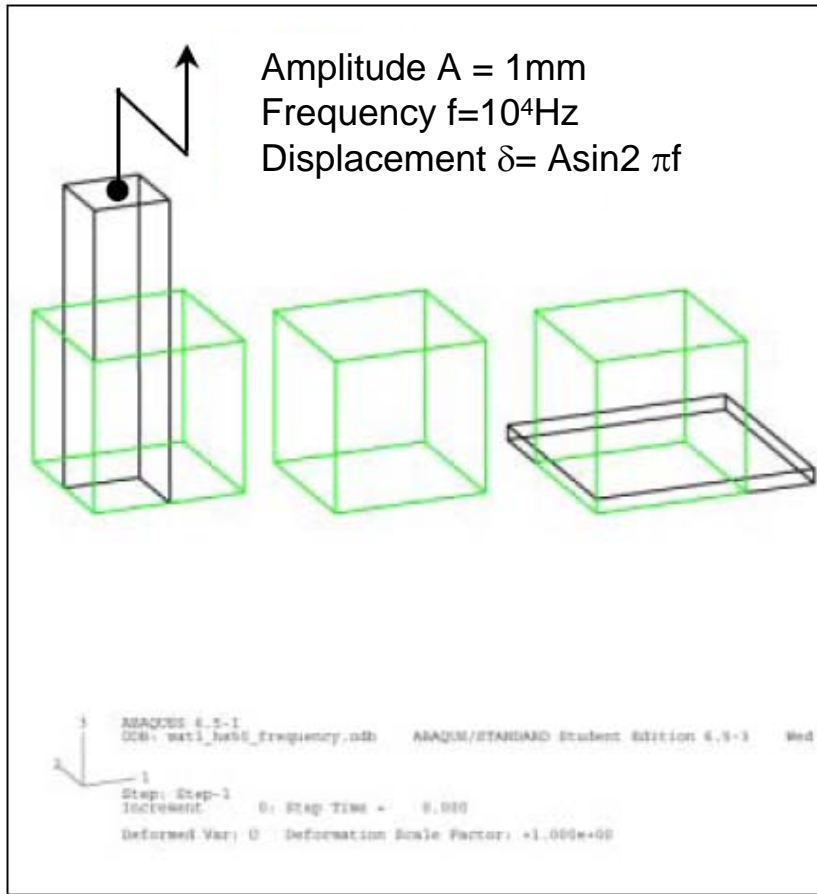
Analysis model



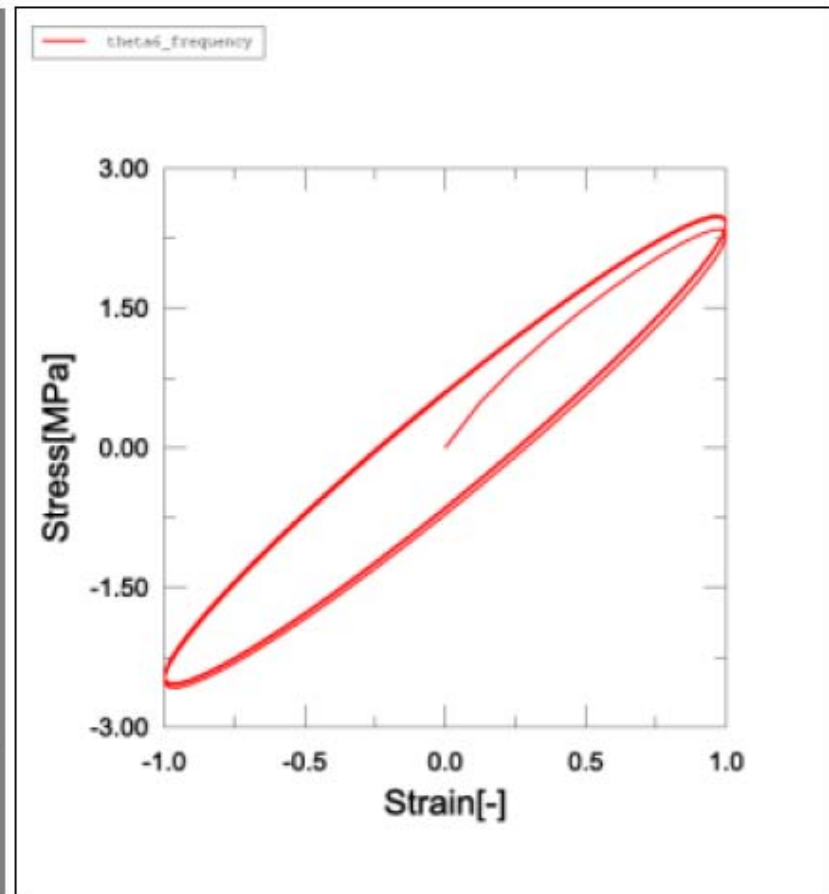
Stress-relaxation curve

θ 6 Frequency response analysis: theta6_frequency.inp

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Analysis model



Hysteresis curve