

θ8 Identification of material property

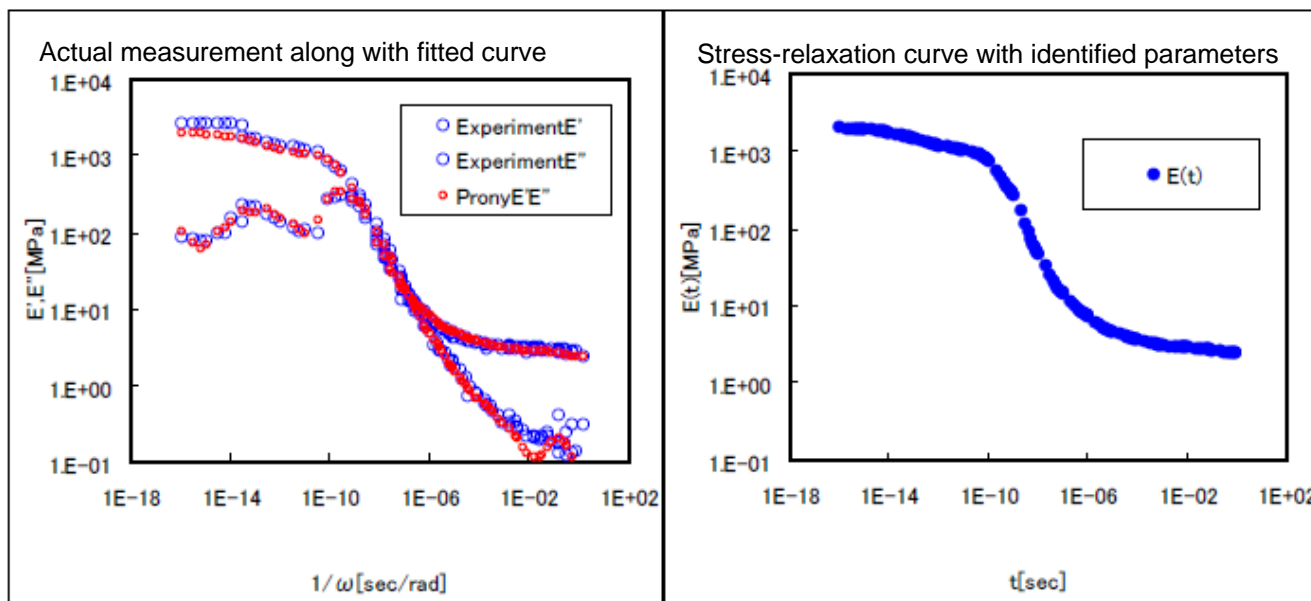
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Young's Modulus [N/mm ²]	Poisson's Ratio
1.85935E+02	4.99000E-01

G_i [N/mm ²]	t_i [sec]
1.17177E+01	2.65258E-16
8.97112E+00	5.30516E-15
6.91013E+00	5.30516E-14
6.49472E+00	5.30516E-13
8.47382E+00	5.30516E-12
7.60350E+00	1.59155E-10
2.30529E+00	7.95775E-10
8.64518E+00	7.95775E-09
5.71854E-01	1.59155E-07
3.03942E-05	1.59155E-06
5.16039E-03	1.59155E-05
1.11115E-10	1.59155E-04

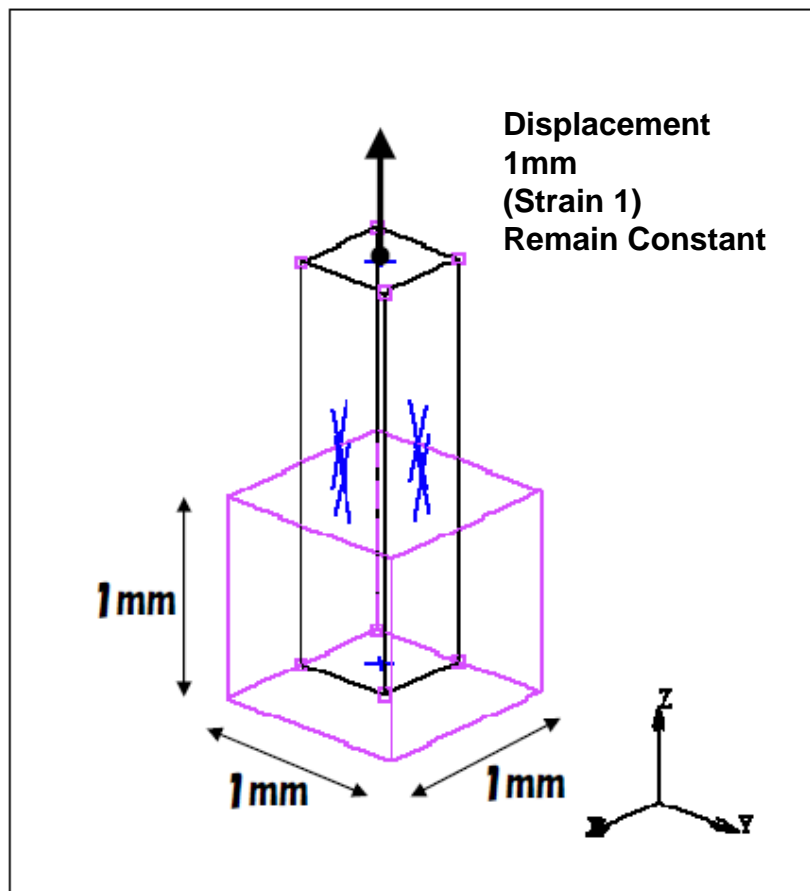
Prony series

$$G(t) = G^{\infty} + \sum_{n=1}^N G^n \exp\left(-\frac{t}{\lambda_d^n}\right)$$

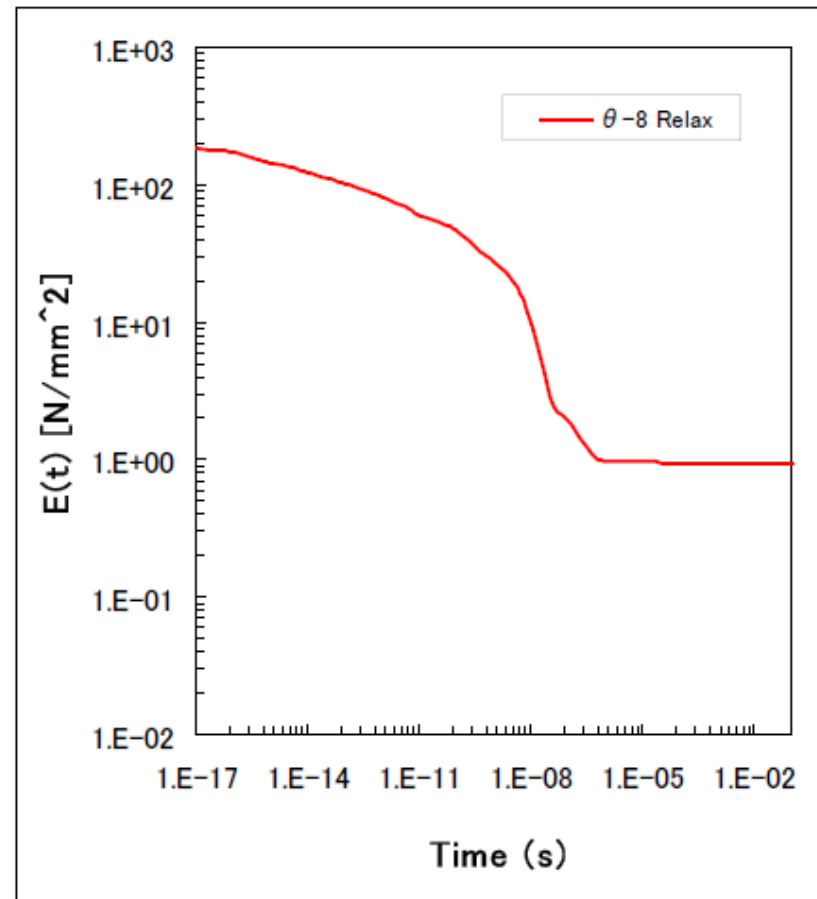


θ -8 Stress-relaxation analysis (theta8_relax_marc.dat)

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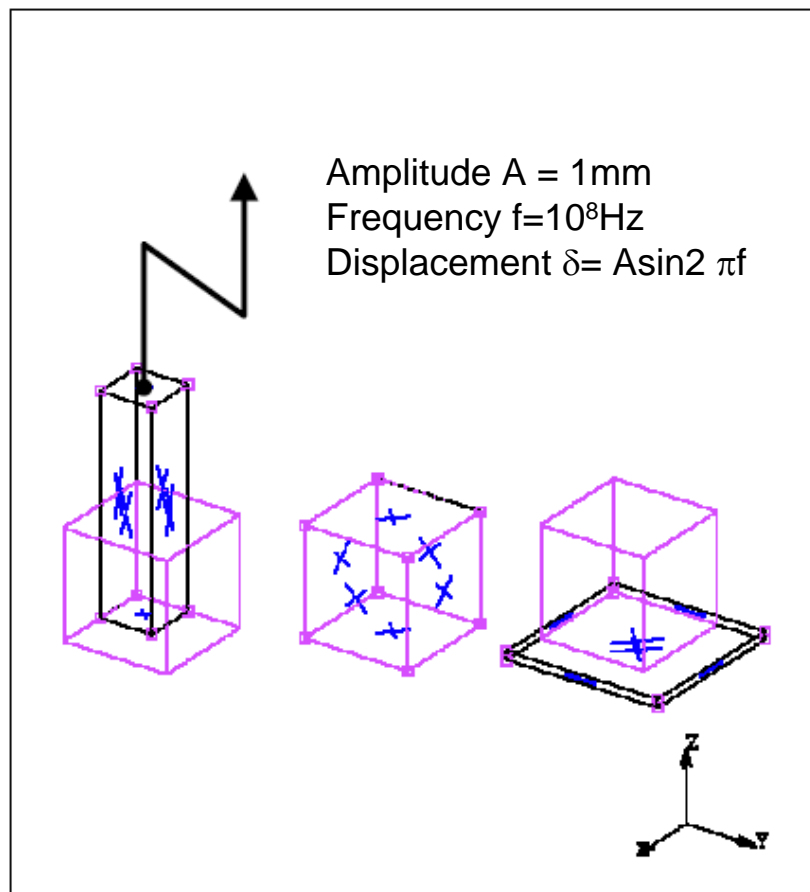
Analysis model



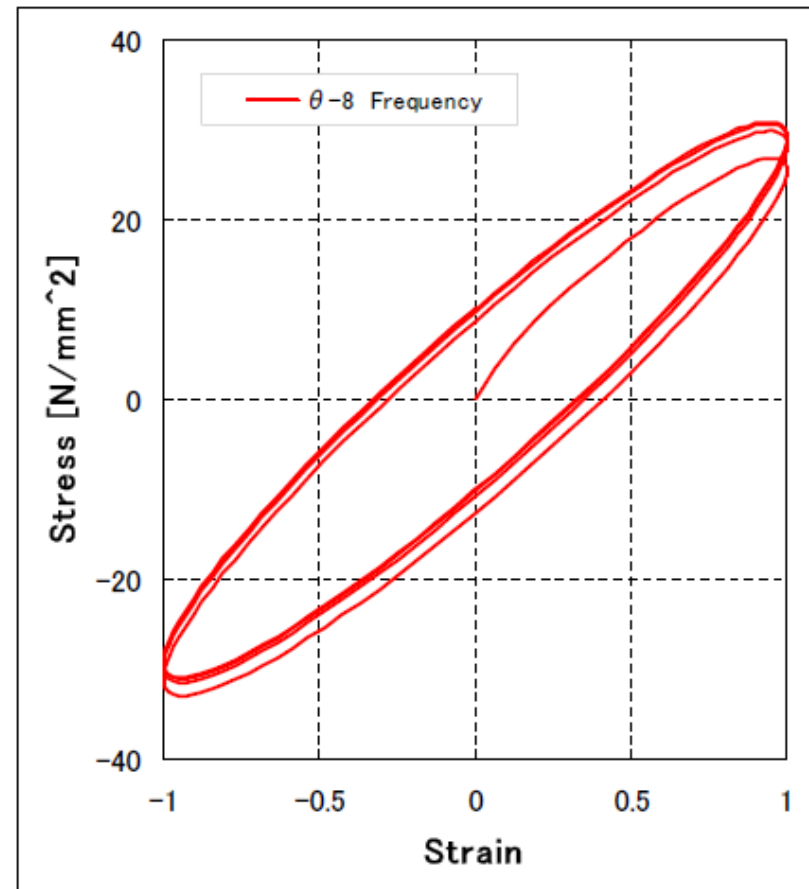
Stress-relaxation curve

θ -8 Harmonic vibration analysis (theta8_freq_marc.dat)

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Analysis model



1000Hz hysteresis curve