Japan Association for Nonlinear CAE

Identification result of material property and analysis model: Hardness (65), Damping (Large)

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Prony series

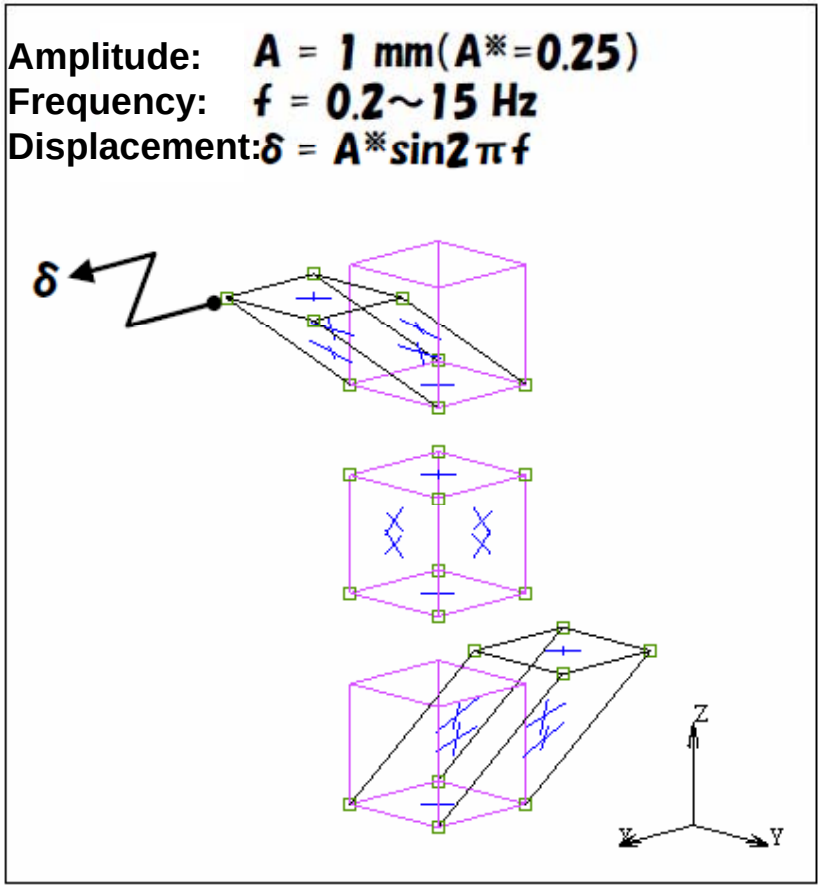
$$G(t) = G_\infty + \sum_{n=1}^{N} G_n \exp(-\beta_n t)$$

$$K(t) = K_\infty + \sum_{n=1}^{N} K_n \exp(-\gamma_n t)$$

Parameter

G_n (MPa)		β_n	
G_∞	0.93407		
G_1	3.2570	β_1	500
G_2	0.29622	β_2	10
G_3	0.70441	β_3	0.5

K_n (MPa)		γ_n	
K_∞	3.61E5	γ_1	
K_1		γ_2	
K_2		γ_3	
K_3		γ_4	



Analysis model

Analytical result of shear test (Constant amplitude): Hardness (65), Damping (Large)

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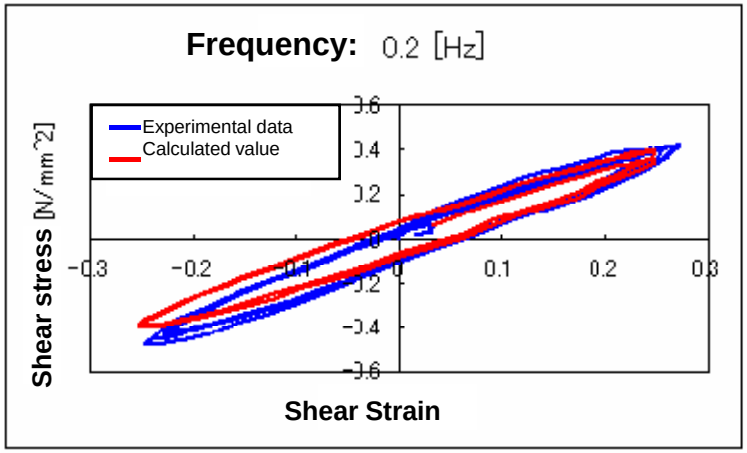
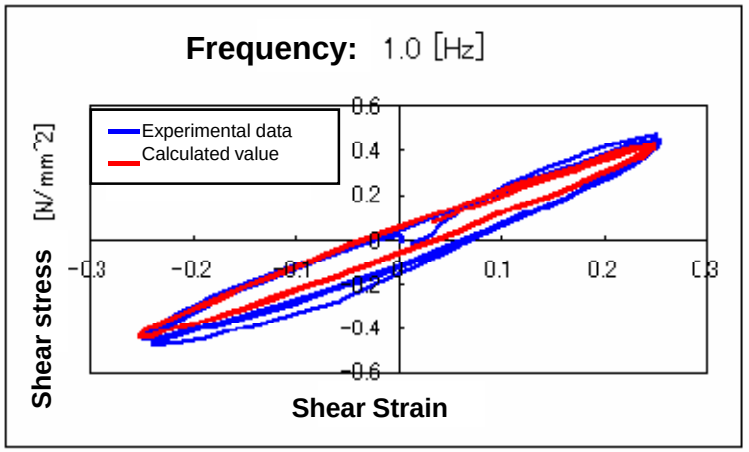
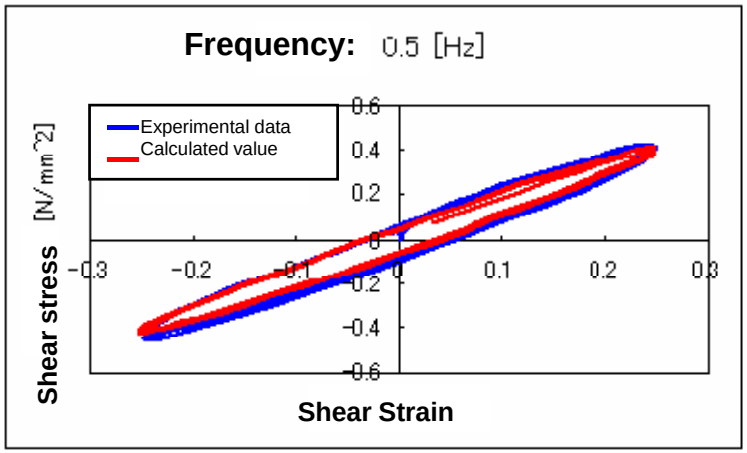


Input File: case0_2.in



Input File: case1_0.in



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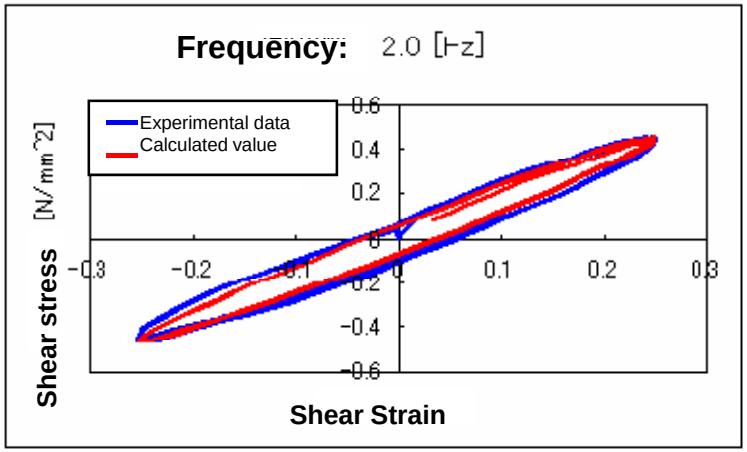

Input File: case2_0.in

Analytical result of shear test (Constant amplitude): Hardness (65), Damping (Large)

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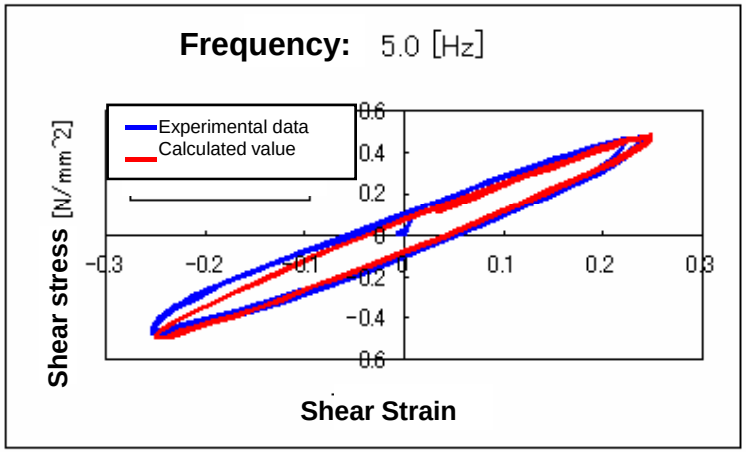
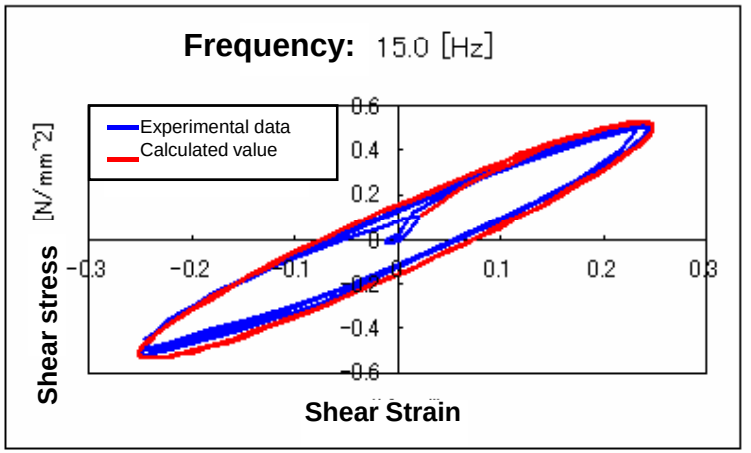
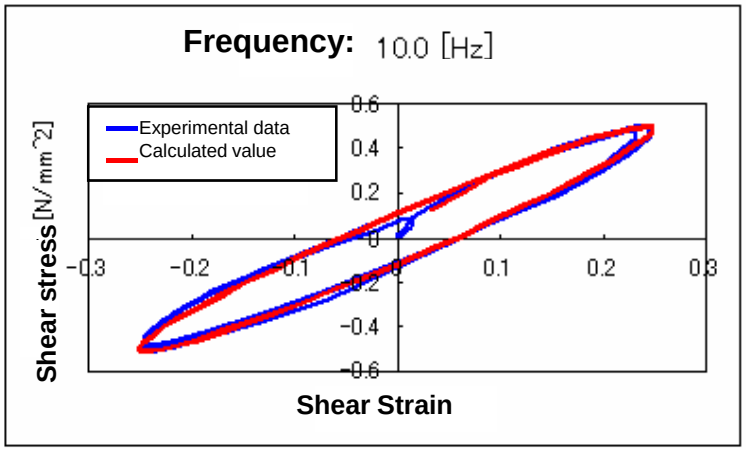


Input File: case5_0.in



Input File: case15_0.in



Input File: case10_0.in