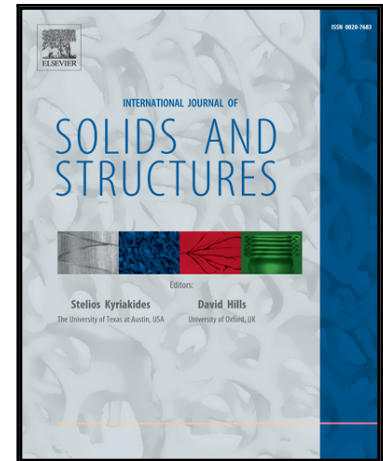


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Thermodynamically-consistent constitutive modeling of aligned Silk Fibroin sponges: theory and application to uniaxial compression

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Highlights

- A nonlinear viscoelastic model is developed within a thermodynamic framework.
- Finite strain compressive response is successfully predicted using the model.
- The model is applicable over a wide range of material concentrations of SF sponge.
- Volumetric behavior of the hydrated sponges under finite strain is also captured.

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