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A viscoelastic constitutive modeling of rubber-like materials with the Payne effect

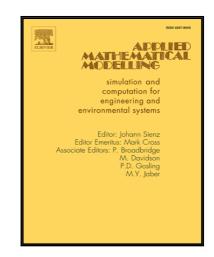
Yihui Pan, Zheng Zhong

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Highlights

- A damage visco-hyperelastic constitutive model is proposed.
- The non-monotonous variation of loss modulus of rubbery materials is explained.
- The thermodynamic dissipation processes behind Payne effect are studied.
- An effective and simple method is developed to identify material parameters.

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