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Thermodynamics-based finite strain viscoelastic-viscoplastic model coupled with damage for asphalt material.

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Highlights

- A thermodynamics-based model under the finite strain framework is proposed.
- Thermo-viscoelastic-viscoplastic behaviors coupled with damage are well predicted.
- The response difference between in tension and in compression is captured.
- Permanent deformation damage of a practical pavement structure is simulated.

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