# Huiyu Sun

List of Publications by Year
in descending order



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|---|---|---|---|
| 29 papers | 480 citations | 687363 13 h-index | 713466 21 g-index |
| 29 all docs | 29 docs citations | 29 times ranked | 321 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Micromechanics of braided composites via multivariable FEM. Computers and Structures, 2003, 81, 2021-2027. | 4.4 | 60 |
| 2 | Thermomechanical constitutive modeling of fiber reinforced shape memory polymer composites based on thermodynamics with internal state variables. Mechanics of Materials, 2019, 130, 9-19. | 3.2 | 48 |
| 3 | A constitutive model for amorphous shape memory polymers based on thermodynamics with internal state variables. Mechanics of Materials, 2017, 111, 1-14. | 3.2 | 40 |
| 4 | A thermoviscoelastic model incorporated with uncoupled structural and stress relaxation mechanisms for amorphous shape memory polymers. Mechanics of Materials, 2018, 124, 18-25. | 3.2 | 29 |
| 5 | 4D printed programmable auxetic metamaterials with shape memory effects. Composite Structures, 2022, 279, 114791. | 5.8 | 28 |
| 6 | A multi-branch thermoviscoelastic model based on fractional derivatives for free recovery behaviors of shape memory polymers. Mechanics of Materials, 2018, 120, 34-42. | 3.2 | 27 |
| 7 | Modeling the thermomechanical behaviors of short fiber reinforced shape memory polymer composites. International Journal of Mechanical Sciences, 2020, 166, 105212. | 6.7 | 27 |
| 8 | Prediction on viscoelastic properties of three-dimensionally braided composites by multi-scale model. Journal of Materials Science, 2013, 48, 6499-6508. | 3.7 | 23 |
| 9 | Thermo-viscoelastic analysis of three-dimensionally braided composites. Composite Structures, 2013, 98, 47-52. | 5.8 | 17 |
| 10 | A hygro-thermo-mechanical constitutive model for hygrothermally activated shape memory polymers under finite deformations. Mechanics of Materials, 2020, 150, 103594. | 3.2 | 16 |
| 11 | A hygro-thermo-mechanical constitutive model for shape memory polymers filled with nano-carbon powder. International Journal of Smart and Nano Materials, 2021, 12, 286-306. | 4.2 | 16 |
| 12 | A finite deformation constitutive model for thermally activated amorphous shape memory polymers. Journal of Intelligent Material Systems and Structures, 2015, 26, 1530-1538. | 2.5 | 15 |
| 13 | Thermo-mechanical modeling of woven fabric reinforced shape memory polymer composites. Mechanics of Advanced Materials and Structures, 2019, 26, 1042-1052. | 2.6 | 15 |
| 14 | A phenomenological constitutive model for shape memory polyurethanes. Journal of Intelligent Material Systems and Structures, 2015, 26, 517-526. | 2.5 | 13 |
| 15 | Modeling the strain rate-, hold time-, and temperature-dependent cyclic behaviors of amorphous shape memory polymers. Smart Materials and Structures, 2018, 27, 075050. | 3.5 | 13 |
| 16 | A unified modeling approach for amorphous shape memory polymers and shape memory polymer based syntactic foam. Polymers for Advanced Technologies, 2016, 27, 1237-1245. | 3.2 | 12 |
| 17 | Modeling the thermomechanical behaviors of shape memory polymers and their nanocomposites by a network transition theory. Smart Materials and Structures, 2019, 28, 065018. | 3.5 | 12 |
| 18 | Application of fractional calculus methods to viscoelastic behaviours of solid propellants. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190291. | 3.4 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Modeling the one-way and two-way shape memory effects of semi-crystalline polymers. Smart Materials and Structures, 2021, 30, 095020. | 3.5 | 12 |
| 20 | Modeling the thermomechanical behaviors of particle reinforced shape memory polymer composites. Applied Physics A: Materials Science and Processing, 2019, 125, 1. | 2.3 | 11 |
| 21 | Modeling the thermoviscoelasticity of transversely isotropic shape memory polymer composites. Smart Materials and Structures, 2020, 29, 025012. | 3.5 | 9 |
| 22 | Modeling the laminated carbon fiber reinforced shape memory polymer composites by using a refined plate theory. Smart Materials and Structures, 2020, 29, 095005. | 3.5 | 7 |
| 23 | A 1D thermomechanical network transition constitutive model coupled with multiple structural relaxation for shape memory polymers. Smart Materials and Structures, 2018, 27, 035024. | 3.5 | 6 |
| 24 | Modeling the shape memory and strength properties of fiber-reinforced shape memory polymer composite laminates. Smart Materials and Structures, 2019, 28, 105011. | 3.5 | 4 |
| 25 | Modeling the thermomechanical behavior of carbon fiberâ€“reinforced shape memory polymer composites under the finite deformation. Journal of Intelligent Material Systems and Structures, 2020, 31, 503-514. | 2.5 | 4 |
| 26 | A nonlinear strain-rate dependent constitutive model for uncured rubber materials under large deformation. Journal of Mechanics, 2020, 37, 118-125. | 1.4 | 2 |
| 27 | Electro-thermo-mechanical modeling of shape memory polymers filled with nano-carbon powder. Journal of Intelligent Material Systems and Structures, 2022, 33, 1731-1742. | 2.5 | 2 |
| 28 | Dynamic modeling of a 3-D 4-directional braided composite beam with a central rigid body. Mechanics of Advanced Materials and Structures, 2023, 30, 3215-3224. | 2.6 | 0 |
| 29 | A 1D physically based constitutive model for two-way shape memory effects in semicrystalline networks. Mechanics of Advanced Materials and Structures, 0, , 1-15. | 2.6 | 0 |