Costantino Creton

List of Publications by Year in descending order

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218 papers

13,367 citations

20759 60 h-index 28224 105 g-index

225 all docs

225 docs citations

times ranked

225

8093 citing authors

| # | Article | IF | CITATIONS |
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| 1 | A molecular interpretation of the toughness of multiple network elastomers at high temperature. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2116127119. | 3.3 | 17 |
| 2 | Heterogeneous nucleation of creases in swelling polymer gels. Physical Review E, 2022, 105, 034504. | 0.8 | 1 |
| 3 | Dynamics of Hydrogels with a Variable Ratio of Permanent and Transient Cross-Links: Constitutive Model and Its Molecular Interpretation. Macromolecules, 2022, 55, 3550-3562. | 2.2 | О |
| 4 | Molecular Mechanism Underpinning Stable Mechanical Performance and Enhanced Conductivity of Air-Aged Ionic Conductive Elastomers. Macromolecules, 2022, 55, 4665-4674. | 2.2 | 4 |
| 5 | Controlling Architecture and Mechanical Properties of Polyether Networks with Organoaluminum Catalysts. Macromolecules, 2022, 55, 5601-5609. | 2.2 | 8 |
| 6 | Fast reversible isomerization of merocyanine as a tool to quantify stress history in elastomers. Chemical Science, 2021, 12, 1693-1701. | 3.7 | 29 |
| 7 | Mechanochemical tools for polymer materials. Chemical Society Reviews, 2021, 50, 4100-4140. | 18.7 | 228 |
| 8 | Strain induced strengthening of soft thermoplastic polyurethanes under cyclic deformation. Journal of Polymer Science, 2021, 59, 685-696. | 2.0 | 15 |
| 9 | Evolution of the Nanostructure and Viscoelastic Properties of Nitrile Rubber upon Mechanical Rejuvenation and Physical Aging. Macromolecules, 2021, 54, 2828-2834. | 2.2 | 5 |
| 10 | Effect of mesoscale phase contrast on fatigue-delaying behavior of self-healing hydrogels. Science Advances, 2021, 7, . | 4.7 | 37 |
| 11 | Cyclic fatigue failure of TPU using a crack propagation approach. Polymer Testing, 2021, 97, 107140. | 2.3 | 23 |
| 12 | Swelling and Mechanical Properties of Polyacrylamide-Derivative Dual-Crosslink Hydrogels Having Metal–Ligand Coordination Bonds as Transient Crosslinks. Gels, 2021, 7, 72. | 2.1 | 4 |
| 13 | Self-Organization at the Crack Tip of Fatigue-Resistant Thermoplastic Polyurethane Elastomers. Macromolecules, 2021, 54, 8726-8737. | 2.2 | 15 |
| 14 | Mechanochemistry unveils stress transfer during sacrificial bond fracture of tough multiple network elastomers. Chemical Science, 2021, 12, 11098-11108. | 3.7 | 27 |
| 15 | 3D fluorescent mapping of invisible molecular damage after cavitation in hydrogen exposed elastomers. Soft Matter, 2021, 17, 4266-4274. | 1.2 | 20 |
| 16 | Why is mechanical fatigue different from toughness in elastomers? The role of damage by polymer chain scission. Science Advances, 2021, 7, eabg9410. | 4.7 | 26 |
| 17 | SEBS block copolymers as novel materials to design transdermal patches. International Journal of Pharmaceutics, 2020, 575, 118975. | 2.6 | 25 |
| 18 | Microfocused Beam SAXS and WAXS Mapping at the Crack Tip and Fatigue Crack Propagation in Natural Rubber. Advances in Polymer Science, 2020, , 467-491. | 0.4 | 3 |

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| 19 | Quantifying Rate- and Temperature-Dependent Molecular Damage in Elastomer Fracture. Physical Review X, 2020, 10 , . | 2.8 | 35 |
| 20 | Topology-Specific Injectable Sticky Hydrogels. Macromolecules, 2020, 53, 9779-9792. | 2.2 | 12 |
| 21 | From force-responsive molecules to quantifying and mapping stresses in soft materials. Science Advances, 2020, 6, eaaz5093. | 4.7 | 70 |
| 22 | Coacervate-Based Underwater Adhesives in Physiological Conditions. ACS Applied Polymer Materials, 2020, 2, 3397-3410. | 2.0 | 21 |
| 23 | Dual Crosslink Hydrogels with Metal-Ligand Coordination Bonds: Tunable Dynamics and Mechanics Under Large Deformation. Advances in Polymer Science, 2020, , 1-20. | 0.4 | 6 |
| 24 | Time dependent fracture of soft materials: linear <i>versus</i> nonlinear viscoelasticity. Soft Matter, 2020, 16, 6163-6179. | 1,2 | 24 |
| 25 | Mesoscale bicontinuous networks in self-healing hydrogels delay fatigue fracture. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7606-7612. | 3.3 | 86 |
| 26 | Tuning the Interactions in Multiresponsive Complex Coacervate-Based Underwater Adhesives. International Journal of Molecular Sciences, 2020, 21, 100. | 1.8 | 14 |
| 27 | Underwater Adhesion of Multiresponsive Complex Coacervates. Advanced Materials Interfaces, 2020, 7, 1901785. | 1.9 | 40 |
| 28 | Complex Coacervation: Underwater Adhesion of Multiresponsive Complex Coacervates (Adv. Mater.) Tj ETQq0 C | 0 0 rgBT /C | overlock 10 Tf |
| 29 | Linking peel and tack performances of pressure sensitive adhesives. Soft Matter, 2020, 16, 3267-3275. | 1.2 | 26 |
| 30 | Thermally Triggered Injectable Underwater Adhesives. Macromolecular Rapid Communications, 2020, 41, e1900653. | 2.0 | 16 |
| 31 | Enhancement of the Adhesive Properties by Optimizing the Water Content in PNIPAM-Functionalized Complex Coacervates. ACS Applied Polymer Materials, 2020, 2, 1722-1730. | 2.0 | 23 |
| 32 | Mechanochromism and optical remodeling of multi-network elastomers containing anthracene dimers. Chemical Science, 2019, 10, 8367-8373. | 3.7 | 62 |
| 33 | Mechanics of zero degree peel test on a tape —Âeffects of large deformation, material nonlinearity, and finite bond length. Extreme Mechanics Letters, 2019, 32, 100518. | 2.0 | 16 |
| 34 | Supramolecular Structure for Large Strain Dissipation and Outstanding Impact Resistance in Polyvinylbutyral. Macromolecules, 2019, 52, 7821-7830. | 2.2 | 18 |
| 35 | Harnessing entropy to enhance toughness in reversibly crosslinked polymer networks. Soft Matter, 2019, 15, 2190-2203. | 1.2 | 23 |
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| 38 | Hydrophobic Hydrogels with Fruitâ€Like Structure and Functions. Advanced Materials, 2019, 31, e1900702. | 11.1 | 64 |
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| 40 | Temperature and aging dependence of strainâ€induced crystallization and cavitation in highly crosslinked and filled natural rubber. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 780-793. | 2.4 | 19 |
| 41 | Thermoresponsive Complex Coacervateâ€Based Underwater Adhesive. Advanced Materials, 2019, 31, e1808179. | 11.1 | 137 |
| 42 | A continuum model for progressive damage in tough multinetwork elastomers. Journal of the Mechanics and Physics of Solids, 2019, 125, 523-549. | 2.3 | 30 |
| 43 | Fracture mechanics of a self-healing hydrogel with covalent and physical crosslinks: A numerical study. Journal of the Mechanics and Physics of Solids, 2018, 120, 79-95. | 2.3 | 41 |
| 44 | Tuning the rheological properties of an ammonium methacrylate copolymer for the design of adhesives suitable for transdermal patches. European Journal of Pharmaceutical Sciences, 2018, 111, 238-246. | 1.9 | 9 |
| 45 | Mechanics of an adhesive tape in a zero degree peel test: effect of large deformation and material nonlinearity. Soft Matter, 2018, 14, 9681-9692. | 1.2 | 21 |
| 46 | Effect of the Strength of Stickers on Rheology and Adhesion of Supramolecular Center-Functionalized Polyisobutenes. Langmuir, 2018, 34, 12625-12634. | 1.6 | 8 |
| 47 | Nonlinear Viscoelastic Modeling of Adhesive Failure for Polyacrylate Pressure-Sensitive Adhesives. Macromolecules, 2018, 51, 8605-8610. | 2.2 | 36 |
| 48 | Equilibrium and Out-of-Equilibrium Adherence of Hydrogels against Polymer Brushes. Macromolecules, 2018, 51, 7556-7566. | 2.2 | 18 |
| 49 | Time-temperature equivalence in a PVA dual cross-link self-healing hydrogel. Journal of Rheology, 2018, 62, 991-1000. | 1.3 | 25 |
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| 51 | Simple model on debonding of soft adhesives. Soft Matter, 2018, 14, 6206-6213. | 1.2 | 20 |
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| 53 | Large strain viscoelastic dissipation during interfacial rupture in laminated glass. Soft Matter, 2017, 13, 1624-1633. | 1.2 | 21 |
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| 55 | Water-based acrylic coatings reinforced by PISA-derived fibers. Polymer Chemistry, 2017, 8, 4992-4995. | 1.9 | 47 |
| 56 | In-situ measurement of the large strain response of the fibrillar debonding region during the steady peeling of pressure sensitive adhesives. International Journal of Fracture, 2017, 204, 175-190. | 1.1 | 32 |
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| 63 | Adhesion and non-linear rheology of adhesives with supramolecular crosslinking points. Soft Matter, 2016, 12, 7174-7185. | 1.2 | 17 |
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| 66 | Mechanics of an Asymmetric Hard–Soft Lamellar Nanomaterial. ACS Nano, 2016, 10, 2054-2062. | 7. 3 | 21 |
| 67 | Fracture of dual crosslink gels with permanent and transient crosslinks. Extreme Mechanics Letters, 2016, 6, 52-59. | 2.0 | 87 |
| 68 | Fracture and adhesion of soft materials: a review. Reports on Progress in Physics, 2016, 79, 046601. | 8.1 | 539 |
| 69 | Mechanical Properties of Self-Recovery Tough Gels with Permanent and Reversible Crosslinks. Kobunshi Ronbunshu, 2015, 72, 597-605. | 0.2 | 0 |
| 70 | Nanocavitation around a crack tip in a soft nanocomposite: A scanning microbeam small angle X-ray scattering study. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 422-429. | 2.4 | 33 |
| 71 | Rate-dependent elastic hysteresis during the peeling of pressure sensitive adhesives. Soft Matter, 2015, 11, 3480-3491. | 1.2 | 73 |
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| 76 | Linear Rheology of Supramolecular Polymers Center-Functionalized with Strong Stickers. Macromolecules, 2015, 48, 7320-7326. | 2.2 | 51 |
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| 92 | Stress–Strain Relationship of Highly Stretchable Dual Cross-Link Gels: Separability of Strain and Time Effect. ACS Macro Letters, 2013, 2, 1065-1068. | 2.3 | 164 |
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| 98 | Intelligent Materials with Adaptive Adhesion Properties Based on Comb-like Polymer Brushes. Langmuir, 2012, 28, 16444-16454. | 1.6 | 33 |
| 99 | Enhanced Adhesion of Elastic Materials to Small-Scale Wrinkles. Langmuir, 2012, 28, 14899-14908. | 1.6 | 78 |
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| 102 | Formation of diblock copolymers at PP/PA6 interfaces and their role in local crystalline organization under fast heating and cooling conditions. Polymer, 2012, 53, 5138-5145. | 1.8 | 7 |
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| 110 | Mechanical Properties of Adhesive Films Obtained from PUâ^'Acrylic Hybrid Particles. Macromolecules, 2011, 44, 2643-2652. | 2.2 | 51 |
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| 112 | Waterborne Polyurethaneâ^'Acrylic Hybrid Nanoparticles by Miniemulsion Polymerization: Applications in Pressure-Sensitive Adhesives. Langmuir, 2011, 27, 3878-3888. | 1.6 | 105 |
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| 114 | Fracture of model polyurethane elastomeric networks. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 355-367. | 2.4 | 35 |
| 115 | A critical local energy release rate criterion for fatigue fracture of elastomers. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 1518-1524. | 2.4 | 73 |
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| 118 | Simultaneous free radical and addition miniemulsion polymerization: Effect of the diol on the microstructure of polyurethane-acrylic pressure-sensitive adhesives. Polymer, 2011, 52, 3021-3030. | 1.8 | 40 |
| 119 | Supramolecular Soft Adhesive Materials. Advanced Functional Materials, 2010, 20, 1803-1811. | 7.8 | 129 |
| 120 | Improving adhesion of acrylic waterborne PSAs to low surface energy materials: Introduction of stearyl acrylate. Journal of Polymer Science Part A, 2010, 48, 5030-5039. | 2.5 | 32 |
| 121 | An experimental investigation of fracture by cavitation of model elastomeric networks. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 1409-1422. | 2.4 | 60 |
| 122 | Rate-dependent frictional adhesion in natural and synthetic gecko setae. Journal of the Royal Society Interface, 2010, 7, 259-269. | 1.5 | 97 |
| 123 | Miniemulsion Polymerization of 2-Ethylhexyl Acrylate. Polymer Architecture Control and Adhesion Properties. Macromolecules, 2010, 43, 8924-8932. | 2.2 | 34 |
| 124 | Self-Assembly in Solution of a Reversible Comb-Shaped Supramolecular Polymer. Macromolecules, 2010, 43, 2529-2534. | 2.2 | 57 |
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| 128 | Controlled Sparse and Percolating Cross-Linking in Waterborne Soft Adhesives. ACS Applied Materials & Los Representations (2009, 1, 2021-2029). | 4.0 | 27 |
| 129 | Large-Strain Mechanical Behavior of Model Block Copolymer Adhesives. Macromolecules, 2009, 42, 7605-7615. | 2.2 | 79 |
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| 135 | A Molecular Mechanism for Toughening and Strengthening Waterborne Nanocomposites. Advanced Materials, 2008, 20, 90-94. | 11.1 | 33 |
| 136 | Detachment of stretched viscoelastic fibrils. European Physical Journal E, 2008, 25, 253-266. | 0.7 | 35 |
| 137 | Adhesion at interfaces between highly entangled polymer melts. Journal of Rheology, 2008, 52, 749-767. | 1.3 | 38 |
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| 144 | Sticky Feet: From Animals to Materials. MRS Bulletin, 2007, 32, 466-472. | 1.7 | 90 |

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| 146 | Large Strain Hysteresis and Mullins Effect of Tough Double-Network Hydrogels. Macromolecules, 2007, 40, 2919-2927. | 2.2 | 573 |
| 147 | Synthesis and Rheological Behavior of New Hydrophobically Modified Hydrogels with Tunable Properties. Macromolecules, 2006, 39, 8128-8139. | 2.2 | 84 |
| 148 | Effect of the Diblock Content on the Adhesive and Deformation Properties of PSAs Based on Styrenic Block Copolymers., 2006,, 337-363. | | 7 |
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| 152 | Waterborne, Nanocomposite Pressure-Sensitive Adhesives with High Tack Energy, Optical Transparency, and Electrical Conductivity. Advanced Materials, 2006, 18, 2730-2734. | 11.1 | 130 |
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| 156 | Investigation of shear failure mechanisms of pressure-sensitive adhesives. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 3316-3330. | 2.4 | 38 |
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