

Sizhu Wu

List of Publications by Year in descending order

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| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Study on the Effect of Polymer Excipients on the Dispersibility, Interaction, Solubility, and Scavenging Reactive Oxygen Species of Myricetin Solid Dispersion: Experiment and Molecular Simulation. ACS Omega, 2022, 7, 1514-1526. | 3.5 | 11 |
| 2 | Study on the mechanisms of the lubricating oil antioxidants: Experimental and molecular simulation. Journal of Molecular Liquids, 2021, 324, 115099. | 4.9 | 17 |
| 3 | Antioxidant Behavior Affected by Polarity in the Olive Oil: Experimental and Molecular Simulation Investigations. ACS Omega, 2021, 6, 7119-7126. | 3.5 | 5 |
| 4 | New Insights into the Quantitative Relationship between Surface Chemistry of Fullerene (C60) and Solubility Parameters and Compatibility with Polymers. Journal of Physical Chemistry B, 2021, 125, 5420-5433. | 2.6 | 4 |
| 5 | Antioxidation behavior of bonded primary-secondary antioxidant/styrene-butadiene rubber composite: Experimental and molecular simulation investigations. Polymer, 2020, 188, 122143. | 3.8 | 18 |
| 6 | Molecular Dynamics Simulation Study on Two-Component Solubility Parameters of Carbon Nanotubes and Precisely Tailoring the Thermodynamic Compatibility between Carbon Nanotubes and Polymers. Langmuir, 2020, 36, 9291-9305. | 3.5 | 13 |
| 7 | Analysis of phthalate plasticizer migration from PVDC packaging materials to food simulants using molecular dynamics simulations and artificial neural network. Food Chemistry, 2020, 317, 126465. | 8.2 | 38 |
| 8 | Insight into the anti-aging mechanisms of natural phenolic antioxidants in natural rubber composites using a screening strategy based on molecular simulation. RSC Advances, 2020, 10, 21318-21327. | 3.6 | 15 |
| 9 | Click chemistry modified graphene oxide/styrene-butadiene rubber composites and molecular simulation study. Composites Science and Technology, 2020, 190, 108061. | 7.8 | 19 |
| 10 | Vulcanization and antioxidation effects of accelerator modified antioxidant in styrene-butadiene rubber: Experimental and computational studies. Polymer Degradation and Stability, 2020, 177, 109181. | 5.8 | 21 |
| 11 | The Relationship between Specific Structure and Gas Permeability of Bromobutyl Rubber: A Combination of Experiments and Molecular Simulations. Macromolecular Theory and Simulations, 2019, 28, 1900025. | 1.4 | 6 |
| 12 | Synergistic effects of antioxidant and silica on enhancing thermo-oxidative resistance of natural rubber: Insights from experiments and molecular simulations. Materials and Design, 2019, 181, 107944. | 7.0 | 46 |
| 13 | Artificial Neural Network Prediction and Mechanism Analysis for Migration of Environmental Contaminant Cyclic Organosiloxane Oligomer from Silicone Rubber. Industrial & Engineering Chemistry Research, 2019, 58, 11093-11100. | 3.7 | 6 |
| 14 | How the hindered amines affect the microstructure and mechanical properties of nitrile-butadiene rubber composites. E-Polymers, 2019, 20, 8-15. | 3.0 | 8 |
| 15 | Study on the Factors Influencing of the Anti-aging Behaviour in Different Antioxidants/Butadiene Rubber. IOP Conference Series: Materials Science and Engineering, 2019, 585, 012005. | 0.6 | 0 |
| 16 | Experimental and molecular dynamics simulation study on the damping mechanism of C5 petroleum resin/chlorinated butyl rubber composites. Journal of Materials Science, 2019, 54, 3960-3974. | 3.7 | 28 |
| 17 | Structures and properties of alkanethiol-modified graphene oxide/solution-polymerized styrene butadiene rubber composites: Click chemistry and molecular dynamics simulation. Composites Science and Technology, 2018, 161, 32-38. | 7.8 | 34 |
| 18 | Quantitative relationships between intermolecular interaction and damping parameters of irganoxâ€1035/NBR hybrids: A combination of experiments, molecular dynamics simulations, and linear regression analyses. Journal of Applied Polymer Science, 2018, 135, 46202. | 2.6 | 20 |

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|----|---|-----|-----------|
| 19 | Thermodynamic analyses of the hydrogen bond dissociation reaction and their effects on damping and compatibility capacities of polar small molecule/nitrile-butadiene rubber systems: Molecular simulation and experimental study. <i>Polymer</i> , 2018, 155, 152-167. | 3.8 | 35 |
| 20 | Effects of antioxidant functionalized silica on reinforcement and anti-aging for solution-polymerized styrene butadiene rubber: Experimental and molecular simulation study. <i>Materials and Design</i> , 2018, 154, 312-325. | 7.0 | 75 |
| 21 | A Combined Experimental and Molecular Simulation Study of Factors Influencing the Selection of Antioxidants in Butadiene Rubber. <i>Journal of Physical Chemistry B</i> , 2017, 121, 1413-1425. | 2.6 | 39 |
| 22 | Molecular Dynamics Simulation Insight Into Two-Component Solubility Parameters of Graphene and Thermodynamic Compatibility of Graphene and Styrene Butadiene Rubber. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10163-10173. | 3.1 | 51 |
| 23 | Compressive stress relaxation modeling of butadiene rubber under thermo-oxidative aging. <i>Journal of Applied Polymer Science</i> , 2017, 134, . | 2.6 | 21 |
| 24 | High Performance Natural Rubber Composites with Well-Organized Interconnected Graphene Networks for Strain-Sensing Application. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4919-4929. | 3.7 | 40 |
| 25 | Investigation of the damping properties of hindered phenol AO-80/polyacrylate hybrids using molecular dynamics simulations in combination with experimental methods. <i>Journal of Materials Science</i> , 2016, 51, 5760-5774. | 3.7 | 40 |
| 26 | Molecular-level insight of hindered phenol AO-70/nitrile-butadiene rubber damping composites through a combination of a molecular dynamics simulation and experimental method. <i>RSC Advances</i> , 2016, 6, 85994-86005. | 3.6 | 38 |
| 27 | Experimental study and molecular dynamics simulation of dynamic properties and interfacial bonding characteristics of graphene/solution-polymerized styrene-butadiene rubber composites. <i>RSC Advances</i> , 2016, 6, 58077-58087. | 3.6 | 22 |
| 28 | Effect of chemical structure of elastomer on filler dispersion and interactions in silica/solution-polymerized styrene butadiene rubber composites through molecular dynamics simulation. <i>RSC Advances</i> , 2016, 6, 14643-14650. | 3.6 | 21 |
| 29 | Data for effects of lanthanum complex on the thermo-oxidative aging of natural rubber. <i>Data in Brief</i> , 2015, 5, 789-795. | 1.0 | 11 |
| 30 | Molecular dynamics simulations and microscopic analysis of the damping performance of hindered phenol AO-60/nitrile-butadiene rubber composites. <i>RSC Advances</i> , 2014, 4, 6719. | 3.6 | 49 |
| 31 | Effect of acrylonitrile content on compatibility and damping properties of hindered phenol AO-60/nitrile-butadiene rubber composites: molecular dynamics simulation. <i>RSC Advances</i> , 2014, 4, 48472-48479. | 3.6 | 34 |
| 32 | A combined experiment and molecular dynamics simulation study of hydrogen bonds and free volume in nitrile-butadiene rubber/hindered phenol damping mixtures. <i>Journal of Materials Chemistry</i> , 2012, 22, 12339. | 6.7 | 133 |
| 33 | Study on the gas permeabilities in styrene-butadiene rubber by molecular dynamics simulation. <i>Frontiers of Chemical Engineering in China</i> , 2010, 4, 257-262. | 0.6 | 0 |