# Dong Woog Lee

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3148531/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 63 papers | 3,080 citations | 218677 26 h-index | 161849 54 g-index |
| 65 all docs | 65 docs citations | 65 times ranked | 4413 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Surface-initiated self-healing of polymers in aqueous media. Nature Materials, 2014, 13, 867-872. | 27.5 | 414 |
| 2 | Underwater contact adhesion and microarchitecture in polyelectrolyte complexes actuated by solvent exchange. Nature Materials, 2016, 15, 407-412. | 27.5 | 379 |
| 3 | Bioinspired Bottle-Brush Polymer Exhibits Low Friction and Amontons-like Behavior. Journal of the American Chemical Society, 2014, 136, 6199-6202. | 13.7 | 234 |
| 4 | Adaptive mechanically controlled lubrication mechanism found in articular joints. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5255-5259. | 7.1 | 200 |
| 5 | Developing a General Interaction Potential for Hydrophobic and Hydrophilic Interactions. Langmuir, 2015, 31, 2051-2064. | 3.5 | 188 |
| 6 | Strong Adhesion and Cohesion of Chitosan in Aqueous Solutions. Langmuir, 2013, 29, 14222-14229. | 3.5 | 153 |
| 7 | Mobility of Capped Silver Nanoparticles under Environmentally Relevant Conditions. Environmental Science & Technology, 2012, 46, 6985-6991. | 10.0 | 112 |
| 8 | Stick-slip friction and wear of articular joints. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E567-74. | 7.1 | 84 |
| 9 | Superaerophobic hydrogels for enhanced electrochemical and photoelectrochemical hydrogen production. Science Advances, 2020, 6, eaaz3944. | 10.3 | 76 |
| 10 | Contact time- and pH-dependent adhesion and cohesion of low molecular weight chitosan coated surfaces. Carbohydrate Polymers, 2015, 117, 887-894. | 10.2 | 72 |
| 11 | Time-Dependent Wetting Behavior of PDMS Surfaces with Bioinspired, Hierarchical Structures. ACS Applied Materials & Interfaces, 2016, 8, 8168-8174. | 8.0 | 67 |
| 12 | Simple-to-Apply Wetting Model to Predict Thermodynamically Stable and Metastable Contact Angles on Textured/Rough/Patterned Surfaces. Journal of Physical Chemistry C, 2017, 121, 5642-5656. | 3.1 | 64 |
| 13 | Significant Performance Enhancement of Polymer Resins by Bioinspired Dynamic Bonding. Advanced Materials, 2017, 29, 1703026. | 21.0 | 63 |
| 14 | Relating domain size distribution to line tension and molecular dipole density in model cytoplasmic myelin lipid monolayers. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9425-9430. | 7.1 | 62 |
| 15 | Intermolecular interactions of chitosan: Degree of acetylation and molecular weight. Carbohydrate Polymers, 2021, 259, 117782. | 10.2 | 62 |
| 16 | Lipid domains control myelin basic protein adsorption and membrane interactions between model myelin lipid bilayers. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E768-75. | 7.1 | 52 |
| 17 | Mussel-Inspired Copolyether Loop with Superior Antifouling Behavior. Macromolecules, 2020, 53, 3551-3562. | 4.8 | 47 |
| 18 | Shearâ€Induced Aggregation of Mammalian Synovial Fluid Components under Boundary Lubrication Conditions. Advanced Functional Materials, 2014, 24, 3152-3161. | 14.9 | 43 |

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|---|---|---|---|
| 19 | Bioinspired polymers for lubrication and wear resistance. Progress in Polymer Science, 2020, 110, 101298. | 24.7 | 41 |
| 20 | Superaerophobic Polyethyleneimine Hydrogels for Improving Electrochemical Hydrogen Production by Promoting Bubble Detachment. Advanced Energy Materials, 2022, 12, . | 19.5 | 41 |
| 21 | Lipid-Protein Interactions Alter Line Tensions and Domain Size Distributions in Lung Surfactant Monolayers. Biophysical Journal, 2012, 102, 56-65. | 0.5 | 40 |
| 22 | Effects of molecular weight of grafted hyaluronic acid on wear initiation. Acta Biomaterialia, 2014, 10, 1817-1823. | 8.3 | 34 |
| 23 | Stretchable and recoverable acrylate-based pressure sensitive adhesives with high adhesion performance, optical clarity, and metal corrosion resistance. Chemical Engineering Journal, 2021, 406, 126800. | 12.7 | 34 |
| 24 | Correlating steric hydration forces with water dynamics through surface force and diffusion NMR measurements in a lipidâ€“DMSOâ€“H <sub>2</sub> O system. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10708-10713. | 7.1 | 32 |
| 25 | Adhesion and hemifusion of cytoplasmic myelin lipid membranes are highly dependent on the lipid composition. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 402-410. | 2.6 | 28 |
| 26 | Effects of monomer functionality on physical properties of 2-ethylhexyl acrylate based stretchable pressure sensitive adhesives. Polymer Testing, 2019, 76, 305-311. | 4.8 | 27 |
| 27 | A DNA intercalation-based electrochemical method for detection of Chlamydia trachomatis utilizing peroxidase-catalyzed signal amplification. Biosensors and Bioelectronics, 2008, 24, 665-669. | 10.1 | 25 |
| 28 | Critical and Off-Critical Miscibility Transitions in Model Extracellular and Cytoplasmic Myelin Lipid Monolayers. Biophysical Journal, 2011, 100, 1490-1498. | 0.5 | 25 |
| 29 | Real-time intermembrane force measurements and imaging of lipid domain morphology during hemifusion. Nature Communications, 2015, 6, 7238. | 12.8 | 24 |
| 30 | Rates of cavity filling by liquids. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8070-8075. | 7.1 | 21 |
| 31 | Adsorption Mechanism of Myelin Basic Protein on Model Substrates and Its Bridging Interaction between the Two Surfaces. Langmuir, 2015, 31, 3159-3166. | 3.5 | 20 |
| 32 | Size compatibility and concentration dependent supramolecular hostâ€“guest interactions at interfaces. Nature Communications, 2022, 13, 112. | 12.8 | 19 |
| 33 | Contact-induced molecular rearrangement of acrylic acid-incorporated pressure sensitive adhesives. Applied Surface Science, 2020, 500, 144246. | 6.1 | 18 |
| 34 | Antigenâ€“Antibody Interactionâ€Derived Bioadhesion of Bacterial Cellulose Nanofibers to Promote Topical Wound Healing. Advanced Functional Materials, 2022, 32, . | 14.9 | 17 |
| 35 | Peptidomimetic Wet-Adhesive PEGtides with Synergistic and Multimodal Hydrogen Bonding. Journal of the American Chemical Society, 2022, 144, 6261-6269. | 13.7 | 17 |
| 36 | Carboxyethyl acrylate incorporated optically clear adhesives with outstanding adhesion strength and immediate strain recoverability for stretchable electronics. Chemical Engineering Journal, 2022, 437, 135390. | 12.7 | 17 |

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|---|---|---|---|
| 37 | The Intersection of Interfacial Forces and Electrochemical Reactions. Journal of Physical Chemistry B, 2013, 117, 16369-16387. | 2.6 | 15 |
| 38 | Contact Angle and Adhesion Dynamics and Hysteresis on Molecularly Smooth Chemically Homogeneous Surfaces. Langmuir, 2017, 33, 10041-10050. | 3.5 | 15 |
| 39 | Understanding the Role of a Water-Soluble Catechol-Functionalized Binder for Silicon Anodes by Diverse In Situ Analyses. , 2022, 4, 831-839. | | 15 |
| 40 | Hyaluronic acidâ€“collagen network interactions during the dynamic compression and recovery of cartilage. Soft Matter, 2012, 8, 9906. | 2.7 | 14 |
| 41 | Probing nanomechanical interaction at the interface between biological membrane and potentially toxic chemical. Journal of Hazardous Materials, 2018, 353, 271-279. | 12.4 | 13 |
| 42 | In-Depth Study of the Interaction Mechanism between the Lignin Nanofilms: Toward a Renewable and Organic Solvent-Free Binder. ACS Sustainable Chemistry and Engineering, 2020, 8, 362-371. | 6.7 | 13 |
| 43 | Multimodal Miniature Surface Forces Apparatus (Î¼SFA) for Interfacial Science Measurements. Langmuir, 2019, 35, 15500-15514. | 3.5 | 12 |
| 44 | Adaptive amphiphilic interaction mechanism of hydroxypropyl methylcellulose in water. Applied Surface Science, 2021, 565, 150535. | 6.1 | 12 |
| 45 | Mussel-Inspired Multiloop Polyethers for Antifouling Surfaces. Biomacromolecules, 2021, 22, 5173-5184. | 5.4 | 12 |
| 46 | Interaction Forces between Supported Lipid Bilayers in the Presence of PEGylated Polymers. Biomacromolecules, 2016, 17, 88-97. | 5.4 | 11 |
| 47 | Strong interfacial energetics between catalysts and current collectors in aqueous sodiumâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 4601-4610. | 10.3 | 10 |
| 48 | Prussian Blue Nanolayer-Embedded Separator for Selective Segregation of Nickel Dissolution in High Nickel Cathodes. Nano Letters, 2022, 22, 1804-1811. | 9.1 | 10 |
| 49 | Essential Role of Thiols in Maintaining Stable Catecholato-Iron Complexes in Condensed Materials. Chemistry of Materials, 2022, 34, 5074-5083. | 6.7 | 10 |
| 50 | Probing molecular mechanisms of M13 bacteriophage adhesion. Communications Chemistry, 2019, 2, . | 4.5 | 9 |
| 51 | Surface Forces and Nanorheology of Molecularly Thin Films. , 2017, , 457-518. | | 8 |
| 52 | Real-Time QCM-D Monitoring of Deposition of Gold Nanorods on a Supported Lipid Bilayer as a Model Cell Membrane. ACS Omega, 2019, 4, 6059-6067. | 3.5 | 8 |
| 53 | Revisiting the Interaction Force Measurement between Lipid Bilayers Using a Surface Forces Apparatus (SFA). Journal of Oleo Science, 2018, 67, 1361-1372. | 1.4 | 7 |
| 54 | Development of Poly(methyl methacrylate)-Based Copolymers with Improved Heat Resistance and Reduced Moisture Absorption. Langmuir, 2019, 35, 15880-15886. | 3.5 | 6 |

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| 55 | Surface Forces and Nanorheology of Molecularly Thin Films. Springer Handbooks, 2017, , 935-985. | 0.6 | 3 |
| 56 | pH-Dependent interaction mechanism of lignin nanofilms. Nanoscale, 2021, 13, 19568-19577. | 5.6 | 3 |
| 57 | Reply to McCutchen: Clarification of hydrodynamic and boundary lubrication mechanisms in joints. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E462-E462. | 7.1 | 2 |
| 58 | The shape and dynamics of deformations of viscoelastic fluids by water droplets. Journal of Colloid and Interface Science, 2020, 580, 776-784. | 9.4 | 2 |
| 59 | Theory of Domain Formation on Model Myelin Monolayer System. Biophysical Journal, 2011, 100, 341a. | 0.5 | 1 |
| 60 | Interaction Forces Between Model Myelin Membranes. Biophysical Journal, 2011, 100, 633a. | 0.5 | 0 |
| 61 | Polymer Mediated Interactions Between Myelin Lipid Bilayers. Biophysical Journal, 2012, 102, 292a-293a. | 0.5 | 0 |
| 62 | Adsorption and Rheological Properties of Myelin Basic Protein and Effects On the Interaction Forces Between Myelin Bilayers. Biophysical Journal, 2012, 102, 78a. | 0.5 | 0 |
| 63 | Friction and Wear of Porcine Articular Joint and Effects of Selective Digestions. Biophysical Journal, 2013, 104, 382a. | 0.5 | 0 |