Ji Hyun Ryu

List of Publications by Year
in descending order

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44 papers	5,751 citations	185998 28 h-index	253896 43 g-index
45 all docs	45 docs citations	45 times ranked	8033 citing authors

#	Article	IF	Citations
1	Polydopamine Surface Chemistry: A Decade of Discovery. ACS Applied Materials & Interfaces, 2018, 10, 7523-7540.	4.0	1,232
2	Catechol-Functionalized Chitosan/Pluronic Hydrogels for Tissue Adhesives and Hemostatic Materials. Biomacromolecules, 2011, 12, 2653-2659.	2.6	568
3	Musselâ€Inspired Adhesive Binders for Highâ€Performance Silicon Nanoparticle Anodes in Lithiumâ€Ion Batteries. Advanced Materials, 2013, 25, 1571-1576.	11.1	532
4	Tissue Adhesive Catecholâ€Modified Hyaluronic Acid Hydrogel for Effective, Minimally Invasive Cell Therapy. Advanced Functional Materials, 2015, 25, 3814-3824.	7.8	351
5	Bio-inspired adhesive catechol-conjugated chitosan for biomedical applications: A mini review. Acta Biomaterialia, 2015, 27, 101-115.	4.1	332
6	Chitosan Oligosaccharide-Stabilized Ferrimagnetic Iron Oxide Nanocubes for Magnetically Modulated Cancer Hyperthermia. ACS Nano, 2012, 6, 5266-5273.	7.3	286
7	DNA/Tannic Acid Hybrid Gel Exhibiting Biodegradability, Extensibility, Tissue Adhesiveness, and Hemostatic Ability. Advanced Functional Materials, 2015, 25, 1270-1278.	7.8	266
8	Bioinspired, Calcium-Free Alginate Hydrogels with Tunable Physical and Mechanical Properties and Improved Biocompatibility. Biomacromolecules, 2013, 14, 2004-2013.	2.6	242
9	TAPE: A Medical Adhesive Inspired by a Ubiquitous Compound in Plants. Advanced Functional Materials, 2015, 25, 2402-2410.	7.8	231
10	Chitosan-catechol: A polymer with long-lasting mucoadhesive properties. Biomaterials, 2015, 52, 161-170.	5.7	223
11	Bio-inspired catechol conjugation converts water-insoluble chitosan into a highly water-soluble, adhesive chitosan derivative for hydrogels and LbL assembly. Biomaterials Science, 2013, 1, 783.	2.6	164
12	Dynamic Bonds between Boronic Acid and Alginate: Hydrogels with Stretchable, Self-Healing, Stimuli-Responsive, Remoldable, and Adhesive Properties. Biomacromolecules, 2018, 19, 2053-2061.	2.6	143
13	Silverâ€Polydopamine Hybrid Coatings of Electrospun Poly(vinyl alcohol) Nanofibers. Macromolecular Materials and Engineering, 2013, 298, 547-554.	1.7	103
14	Diselenide-Bridged Carbon-Dot-Mediated Self-Healing, Conductive, and Adhesive Wireless Hydrogel Sensors for Label-Free Breast Cancer Detection. ACS Nano, 2020, 14, 8409-8420.	7.3	94
15	Coagulopathy-independent, bioinspired hemostatic materials: A full research story from preclinical models to a human clinical trial. Science Advances, 2021, 7, .	4.7	80
16	Chitosan oral patches inspired by mussel adhesion. Journal of Controlled Release, 2020, 317, 57-66.	4.8	76
17	Bioinspired Templating Synthesis of Metalâ€“Polymer Hybrid Nanostructures within 3D Electrospun Nanofibers. ACS Applied Materials & Interfaces, 2013, 5, 6381-6390.	4.0	69
18	Chitosan-g-hematin: Enzyme-mimicking polymeric catalyst for adhesive hydrogels. Acta Biomaterialia, 2014, 10, 224-233.	4.1	63

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19	Facile Construction of Robust Multilayered PEG Films on Polydopamine-Coated Solid Substrates for Marine Antifouling Applications. ACS Applied Materials & Interfaces, 2018, 10, 7626-7631.	4.0	63
20	Vanadylâ€“Catecholamine Hydrogels Inspired by Ascidians and Mussels. Chemistry of Materials, 2015, 27, 105-111.	3.2	61
21	Hemostatic Swabs Containing Polydopamine-like Catecholamine Chitosan-Catechol for Normal and Coagulopathic Animal Models. ACS Biomaterials Science and Engineering, 2018, 4, 2314-2318.	2.6	55
22	STAPLE: Stable Alginate Gel Prepared by Linkage Exchange from Ionic to Covalent Bonds. Advanced Healthcare Materials, 2016, 5, 75-79.	3.9	54
23	Alginateâ€Boronic Acid: pHâ€Triggered Bioinspired Glue for Hydrogel Assembly. Advanced Functional Materials, 2020, 30, 1908497.	7.8	52
24	Adhesive barrier/directional controlled release for cartilage repair byÂendogenous progenitor cell recruitment. Biomaterials, 2015, 39, 173-181.	5.7	41
25	NiCHE Platform: Nature-Inspired Catechol-Conjugated Hyaluronic Acid Environment Platform for Salivary Gland Tissue Engineering. ACS Applied Materials & Interfaces, 2020, 12, 4285-4294.	4.0	33
26	Adhesive Catechol-Conjugated Hyaluronic Acid for Biomedical Applications: A Mini Review. Applied Sciences (Switzerland), 2021, 11, 21.	1.3	33
27	Bioâ€Inspired, Waterâ€Soluble to Insoluble Selfâ€Conversion for Flexible, Biocompatible, Transparent, Catecholamine Polysaccharide Thin Films. Advanced Functional Materials, 2014, 24, 7709-7716.	7.8	32
28	Long-term, feeder-free maintenance of human embryonic stem cells by mussel-inspired adhesive heparin and collagen type I. Acta Biomaterialia, 2016, 32, 138-148.	4.1	31
29	Multipurpose Intraperitoneal Adhesive Patches. Advanced Functional Materials, 2019, 29, 1900495.	7.8	31
30	Catalyst-mediated yet catalyst-free hydrogels formed by interfacial chemical activation. Chemical Communications, 2014, 50, 2869-2872.	2.2	30
31	Nanotheranostic Carbon Dots as an Emerging Platform for Cancer Therapy. Journal of Nanotheranostics, 2020, 1, 58-77.	1.7	28
32	Wireless label-free electrochemical detection of cancer cells by MnO2-Decorated polymer dots. Sensors and Actuators B: Chemical, 2020, 320, 128391.	4.0	24
33	PPARÎ±â^'ACOT12 axis is responsible for maintaining cartilage homeostasis through modulating de novo lipogenesis. Nature Communications, 2022, 13, 3.	5.8	24
34	Efficient delivery of siRNAs by a photothermal approach using plant flavonoid-inspired gold nanoshells. Chemical Communications, 2014, 50, 13388-13390.	2.2	21
35	Membrane and nucleus targeting for highly sensitive cancer cell detection using pyrophosphate and alkaline phosphatase activity-mediated fluorescence switching of functionalized carbon dots. Journal of Materials Chemistry B, 2018, 6, 5992-6001.	2.9	17
36	Freezeâ€“Thawing-Induced Macroporous Catechol Hydrogels with Shape Recovery and Sponge-like Properties. ACS Biomaterials Science and Engineering, 2021, 7, 4318-4329.	2.6	17

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37	Effect of charge on in vivo adhesion stability of catechol-conjugated polysaccharides. Journal of Industrial and Engineering Chemistry, 2019, 79, 425-430.	2.9	12
38	Developmental role of hyaluronic acid and its application in salivary gland tissue engineering. Acta Biomaterialia, 2020, 115, 275-287.	4.1	9
39	NUDT7 Loss Promotes KrasG12D CRC Development. Cancers, 2020, 12, 576.	1.7	9
40	Lithium-Ion Batteries: Mussel-Inspired Adhesive Binders for High-Performance Silicon Nanoparticle Anodes in Lithium-Ion Batteries (Adv. Mater. 11/2013). Advanced Materials, 2013, 25, 1570-1570.	11.1	8
41	Tumor microenvironment-responsive touch sensor-based pH-triggered controllable conductive hydrogel. Applied Materials Today, 2021, 25, 101259.	2.3	6
42	Tissue Reconstruction: Tissue Adhesive Catecholâ€Modified Hyaluronic Acid Hydrogel for Effective, Minimally Invasive Cell Therapy (Adv. Funct. Mater. 25/2015). Advanced Functional Materials, 2015, 25, 3798-3798.	7.8	3
43	Biomedical Applications: Multipurpose Intraperitoneal Adhesive Patches (Adv. Funct. Mater. 29/2019). Advanced Functional Materials, 2019, 29, 1970202.	7.8	2
44	Efficient Surface Immobilization of Chemically Modified Hyaluronans for Enhanced Bioactivity and Survival of In Vitro-Cultured Embryonic Salivary Gland Mesenchymal Cells. Polymers, 2021, 13, 1216.	2.0	0