Seung-Wuk Lee

List of Publications by Year
in descending order

79 papers	6,741 citations	87888 38 h-index	71685 76 g-index
80 all docs	80 docs citations	80 times ranked	8091 citing authors

#	Article	IF	Citations
1	Design of functional hydrogels using smart polymer based on elastin-like polypeptides. Chemical Engineering Journal, 2022, 435, 135155.	12.7	9
2	M13 Virus Triboelectricity and Energy Harvesting. Nano Letters, 2021, 21, 6851-6858.	9.1	11
3	Moisture-induced autonomous surface potential oscillations for energy harvesting. Nature Communications, 2021, 12, 5287.	12.8	26
4	Effect of elastinâ€like polypeptide incorporation on the adhesion maturation of mineral trioxide aggregates. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 2847-2856.	3.4	6
5	Catechol-Functionalized Elastin-like Polypeptides as Tissue Adhesives. Biomacromolecules, 2020, 21, 2938-2948.	5.4	31
6	Biomolecular Piezoelectric Materials: From Amino Acids to Living Tissues. Advanced Materials, 2020, 32, e1906989.	21.0	134
7	Elastin-Based Thermoresponsive Shape-Memory Hydrogels. Biomacromolecules, 2020, 21, 1149-1156.	5.4	37
8	Vertical Self-Assembly of Polarized Phage Nanostructure for Energy Harvesting. Nano Letters, 2019, 19, 2661-2667.	9.1	39
9	MoS₂ Liquid Cell Electron Microscopy Through Clean and Fast Polymer-Free MoS₂ Transfer. Nano Letters, 2019, 19, 1788-1795.	9.1	45
10	Bacteriophage nanofiber fabrication using near field electrospinning. RSC Advances, 2019, 9, 39111-39118.	3.6	11
11	Transient self-templating assembly of M13 bacteriophage for enhanced biopiezoelectric devices. Nano Energy, 2019, 56, 716-723.	16.0	29
12	Growth of Au and ZnS nanostructures via engineered peptide and M13 bacteriophage templates. Soft Matter, 2018, 14, 2996-3002.	2.7	2
13	Engineered Phage Matrix Stiffness-Modulating Osteogenic Differentiation. ACS Applied Materials & Interfaces, 2018, 10, 4349-4358.	8.0	20
14	Improvement of physical properties of calcium phosphate cement by elastin-like polypeptide supplementation. Scientific Reports, 2018, 8, 5216.	3.3	27
15	A comprehensive review on piezoelectric energy harvesting technology: Materials, mechanisms, and applications. Applied Physics Reviews, 2018, 5, .	11.3	565
16	Enhancing Effect of Elastinlike Polypeptide-based Matrix on the Physical Properties of Mineral Trioxide Aggregate. Journal of Endodontics, 2018, 44, 1702-1708.	3.1	12
17	Chimeric Adeno-Associated Virus-Mediated Cardiovascular Reprogramming for Ischemic Heart Disease. ACS Omega, 2018, 3, 5918-5925.	3.5	26
18	Diphenylalanine Peptide Nanotube Energy Harvesters. ACS Nano, 2018, 12, 8138-8144.	14.6	136

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19	Engineering of M13 Bacteriophage for Development of Tissue Engineering Materials. Methods in Molecular Biology, 2018, 1776, 487-502.	0.9	7
20	Gold dendrites Co-deposited with M13 virus as a biosensor platform for nitrite ions. Biosensors and Bioelectronics, 2017, 94, 87-93.	10.1	29
21	Phage-Based Structural Color Sensors and Their Pattern Recognition Sensing System. ACS Nano, 2017, 11, 3632-3641.	14.6	92
22	Engineered phage nanofibers induce angiogenesis. Nanoscale, 2017, 9, 17109-17117.	5.6	15
23	Production of tunable nanomaterials using hierarchically assembled bacteriophages. Nature Protocols, 2017, 12, 1999-2013.	12.0	48
24	M13 Virus-Incorporated Biotemplates on Electrode Surfaces To Nucleate Metal Nanostructures by Electrodeposition. ACS Applied Materials & Interfaces, 2017, 9, 32965-32976.	8.0	32
25	Self-Healing Elastinâ€“Bioglass Hydrogels. Biomacromolecules, 2016, 17, 2619-2625.	5.4	53
26	Biomimetic self-templating optical structures fabricated by genetically engineered M13 bacteriophage. Biosensors and Bioelectronics, 2016, 85, 853-859.	10.1	29
27	M13 Bacteriophage and Adenoâ€Associated Virus Hybrid for Novel Tissue Engineering Material with Gene Delivery Functions. Advanced Healthcare Materials, 2016, 5, 88-93.	7.6	27
28	Engineered phage films as scaffolds for CaCO₃biomineralization. Nanoscale, 2016, 8, 15696-15701.	5.6	15
29	Elastin-Based Rubber-Like Hydrogels. Biomacromolecules, 2016, 17, 2409-2416.	5.4	34
30	Eco-design and evaluation for production of 7-aminocephalosporanic acid from carbohydrate wastes discharged after microalgae-based biodiesel production. Journal of Cleaner Production, 2016, 133, 511-517.	9.3	12
31	Drug Delivery Using Novel Biological and Synthetic Materials. BioMed Research International, 2015, 2015, 1-2.	1.9	0
32	Biomimetic Self-Templated Hierarchical Structures of Collagen-Like Peptide Amphiphiles. Nano Letters, 2015, 15, 7138-7145.	9.1	64
33	Biomimetic sensor design. Nanoscale, 2015, 7, 18379-18391.	5.6	25
34	Selective and Sensitive Sensing of Flame Retardant Chemicals Through Phage Display Discovered Recognition Peptide. Nano Letters, 2015, 15, 7697-7703.	9.1	13
35	Proteinâ€based functional nanomaterial design for bioengineering applications. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2015, 7, 69-97.	6.1	43
36	Synthetic Phage for Tissue Regeneration. Mediators of Inflammation, 2014, 2014, 1-11.	3.0	21

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37	Field Effect Transistors: Directâ€Write Complementary Graphene Field Effect Transistors and Junctions via Nearâ€Field Electrospinning (Small 10/2014). Small, 2014, 10, 2112-2112.	10.0	0
38	Directâ€Write Complementary Graphene Field Effect Transistors and Junctions via Nearâ€Field Electrospinning. Small, 2014, 10, 1920-1925.	10.0	23
39	Biomimetic virus-based colourimetric sensors. Nature Communications, 2014, 5, 3043.	12.8	207
40	M13 Bacteriophage Displaying DOPA on Surfaces: Fabrication of Various Nanostructured Inorganic Materials without Time-Consuming Screening Processes. ACS Applied Materials & Interfaces, 2014, 6, 18653-18660.	8.0	23
41	Collagen mimetic peptide engineered M13 bacteriophage for collagen targeting and imaging in cancer. Biomaterials, 2014, 35, 9236-9245.	11.4	41
42	Graphene-Based Materials Functionalized with Elastin-like Polypeptides. Langmuir, 2014, 30, 2223-2229.	3.5	30
43	Cyclic RGD Peptide Incorporation on Phage Major Coat Proteins for Improved Internalization by HeLa Cells. Bioconjugate Chemistry, 2014, 25, 216-223.	3.6	33
44	Phage-based nanomaterials for biomedical applications. Acta Biomaterialia, 2014, 10, 1741-1750.	8.3	48
45	Assembly of Bacteriophage into Functional Materials. Chemical Record, 2013, 13, 43-59.	5.8	85
46	Phage Display for the Discovery of Hydroxyapatite-Associated Peptides. Methods in Enzymology, 2013, 532, 305-323.	1.0	5
47	Impedimetric graphene-based biosensors for the detection of polybrominated diphenyl ethers. Nanoscale, 2013, 5, 6048.	5.6	22
48	Light-Controlled Graphene-Elastin Composite Hydrogel Actuators. Nano Letters, 2013, 13, 2826-2830.	9.1	515
49	Phage-Chips for Novel Optically Readable Tissue Engineering Assays. Langmuir, 2012, 28, 2166-2172.	3.5	44
50	Virus-based piezoelectric energy generation. Nature Nanotechnology, 2012, 7, 351-356.	31.5	377
51	Engineered phage-based therapeutic materials inhibit Chlamydia trachomatis intracellular infection. Biomaterials, 2012, 33, 5166-5174.	11.4	57
52	Facile growth factor immobilization platform based on engineered phage matrices. Soft Matter, 2011, 7, 1660.	2.7	32
53	Facile patterning of genetically engineered M13 bacteriophage for directional growth of human fibroblast cells. Soft Matter, 2011, 7, 363-368.	2.7	76
54	Early Osteogenic Differentiation of Mouse Preosteoblasts Induced by Collagen-Derived DGEA-Peptide on Nanofibrous Phage Tissue Matrices. Biomacromolecules, 2011, 12, 987-996.	5.4	76

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55	Polydiacetylene Incorporated with Peptide Receptors for the Detection of Trinitrotoluene Explosives. Langmuir, 2011, 27, 3180-3187.	3.5	74
56	Evolutionary Screening of Collagen-like Peptides That Nucleate Hydroxyapatite Crystals. Langmuir, 2011, 27, 7620-7628.	3.5	75
57	Selective and Sensitive TNT Sensors Using Biomimetic Polydiacetylene-Coated CNT-FETs. ACS Nano, 2011, 5, 2824-2830.	14.6	143
58	Elastin-Like Polypeptide Based Hydroxyapatite Bionanocomposites. Biomacromolecules, 2011, 12, 672-680.	5.4	49
59	Microscopic Study of Hydroxyapatite Dissolution As Affected by Fluoride Ions. Langmuir, 2011, 27, 5335-5339.	3.5	21
60	Biomimetic self-templating supramolecular structures. Nature, 2011, 478, 364-368.	27.8	382
61	Genetically Engineered Liquid-Crystalline Viral Films for Directing Neural Cell Growth. Langmuir, 2010, 26, 9885-9890.	3.5	60
62	Fabrication of engineered M13 bacteriophages into liquid crystalline films and fibers for directional growth and encapsulation of fibroblasts. Soft Matter, 2010, 6, 4454.	2.7	41
63	Genetically Engineered Nanofiber-Like Viruses For Tissue Regenerating Materials. Nano Letters, 2009, 9, 846-852.	9.1	183
64	Effect of Salinity on Hydroxyapatite Dissolution Studied by Atomic Force Microscopy. Journal of Physical Chemistry C, 2009, 113, 3369-3372.	3.1	39
65	Engineering Phage Materials with Desired Peptide Display: Rational Design Sustained through Natural Selection. Bioconjugate Chemistry, 2009, 20, 2300-2310.	3.6	29
66	Characterization of the Dominant Molecular Step Orientations on Hydroxyapatite (100) Surfaces. Langmuir, 2009, 25, 7205-7208.	3.5	24
67	Polymer-Oligopeptide Composite Coating for Selective Detection of Explosives in Water. Analytical Chemistry, 2009, 81, 4192-4199.	6.5	77
68	Defect Induced Asymmetric Pit Formation on Hydroxyapatite. Langmuir, 2008, 24, 11063-11066.	3.5	28
69	Evolutionary Screening of Biomimetic Coatings for Selective Detection of Explosives. Langmuir, 2008, 24, 4938-4943.	3.5	141
70	Phage as templates for hybrid materials and mediators for nanomaterial synthesis. Current Opinion in Chemical Biology, 2006, 10, 246-252.	6.1	126
71	Molecular orientation of a ZnS-nanocrystal-modified M13 virus on a silicon substrate. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 629-635.	2.1	6
72	Virus-Based Fabrication of Micro- and Nanofibers Using Electrospinning. Nano Letters, 2004, 4, 387-390.	9.1	184

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73	Genetically Driven Assembly of Nanorings Based on the M13 Virus. Nano Letters, 2004, 4, 23-27.	9.1	108
74	Viruses as vehicles for growth, organization and assembly of materials11The Golden Jubilee Issueâ€"Selected topics in Materials Science and Engineering: Past, Present and Future, edited by S. Suresh.. Acta Materialia, 2003, 51, 5867-5880.	7.9	295
75	Chiral Smectic C Structures of Virus-Based Filmsâ€. Langmuir, 2003, 19, 1592-1598.	3.5	82
76	Ordering of Quantum Dots Using Genetically Engineered Viruses. Science, 2002, 296, 892-895.	12.6	975
77	Title is missing!. Journal of Materials Chemistry, 2001, 11, 3023-3030.	6.7	50
78	Highly Efficient Light-Emitting Diodes Based on an Organic-Soluble Poly(p-phenylenevinylene) Derivative Carrying the Electron-Transporting PBD Moiety. Advanced Materials, 1998, 10, 1112-1116.	21.0	129
79	Biomimetic virus-based colourimetric sensors. , 0, .		1