

Seung-Wuk Lee

List of Publications by Year in descending order

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79
papers

6,741
citations

87843

38
h-index

71651

76
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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. <i>Chemical Engineering Journal</i> , 2022, 435, 135155.	6.6	9
2	M13 Virus Triboelectricity and Energy Harvesting. <i>Nano Letters</i> , 2021, 21, 6851-6858.	4.5	11
3	Moisture-induced autonomous surface potential oscillations for energy harvesting. <i>Nature Communications</i> , 2021, 12, 5287.	5.8	26
4	Effect of elastin-like polypeptide incorporation on the adhesion maturation of mineral trioxide aggregates. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 2847-2856.	1.6	6
5	Catechol-Functionalized Elastin-like Polypeptides as Tissue Adhesives. <i>Biomacromolecules</i> , 2020, 21, 2938-2948.	2.6	31
6	Biomolecular Piezoelectric Materials: From Amino Acids to Living Tissues. <i>Advanced Materials</i> , 2020, 32, e1906989.	11.1	134
7	Elastin-Based Thermoresponsive Shape-Memory Hydrogels. <i>Biomacromolecules</i> , 2020, 21, 1149-1156.	2.6	37
8	Vertical Self-Assembly of Polarized Phage Nanostructure for Energy Harvesting. <i>Nano Letters</i> , 2019, 19, 2661-2667.	4.5	39
9	MoS ₂ Liquid Cell Electron Microscopy Through Clean and Fast Polymer-Free MoS ₂ Transfer. <i>Nano Letters</i> , 2019, 19, 1788-1795.	4.5	45
10	Bacteriophage nanofiber fabrication using near field electrospinning. <i>RSC Advances</i> , 2019, 9, 39111-39118.	1.7	11
11	Transient self-templating assembly of M13 bacteriophage for enhanced biopiezoelectric devices. <i>Nano Energy</i> , 2019, 56, 716-723.	8.2	29
12	Growth of Au and ZnS nanostructures via engineered peptide and M13 bacteriophage templates. <i>Soft Matter</i> , 2018, 14, 2996-3002.	1.2	2
13	Engineered Phage Matrix Stiffness-Modulating Osteogenic Differentiation. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 4349-4358.	4.0	20
14	Improvement of physical properties of calcium phosphate cement by elastin-like polypeptide supplementation. <i>Scientific Reports</i> , 2018, 8, 5216.	1.6	27
15	A comprehensive review on piezoelectric energy harvesting technology: Materials, mechanisms, and applications. <i>Applied Physics Reviews</i> , 2018, 5, .	5.5	565
16	Enhancing Effect of Elastinlike Polypeptide-based Matrix on the Physical Properties of Mineral Trioxide Aggregate. <i>Journal of Endodontics</i> , 2018, 44, 1702-1708.	1.4	12
17	Chimeric Adeno-Associated Virus-Mediated Cardiovascular Reprogramming for Ischemic Heart Disease. <i>ACS Omega</i> , 2018, 3, 5918-5925.	1.6	26
18	Diphenylalanine Peptide Nanotube Energy Harvesters. <i>ACS Nano</i> , 2018, 12, 8138-8144.	7.3	136

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19	Engineering of M13 Bacteriophage for Development of Tissue Engineering Materials. <i>Methods in Molecular Biology</i> , 2018, 1776, 487-502.	0.4	7
20	Gold dendrites Co-deposited with M13 virus as a biosensor platform for nitrite ions. <i>Biosensors and Bioelectronics</i> , 2017, 94, 87-93.	5.3	29
21	Phage-Based Structural Color Sensors and Their Pattern Recognition Sensing System. <i>ACS Nano</i> , 2017, 11, 3632-3641.	7.3	92
22	Engineered phage nanofibers induce angiogenesis. <i>Nanoscale</i> , 2017, 9, 17109-17117.	2.8	15
23	Production of tunable nanomaterials using hierarchically assembled bacteriophages. <i>Nature Protocols</i> , 2017, 12, 1999-2013.	5.5	48
24	M13 Virus-Incorporated Biotemplates on Electrode Surfaces To Nucleate Metal Nanostructures by Electrodeposition. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 32965-32976.	4.0	32
25	Self-Healing Elastin- α -Bioglass Hydrogels. <i>Biomacromolecules</i> , 2016, 17, 2619-2625.	2.6	53
26	Biomimetic self-templating optical structures fabricated by genetically engineered M13 bacteriophage. <i>Biosensors and Bioelectronics</i> , 2016, 85, 853-859.	5.3	29
27	M13 Bacteriophage and Adeno-Associated Virus Hybrid for Novel Tissue Engineering Material with Gene Delivery Functions. <i>Advanced Healthcare Materials</i> , 2016, 5, 88-93.	3.9	27
28	Engineered phage films as scaffolds for CaCO ₃ biomineralization. <i>Nanoscale</i> , 2016, 8, 15696-15701.	2.8	15
29	Elastin-Based Rubber-Like Hydrogels. <i>Biomacromolecules</i> , 2016, 17, 2409-2416.	2.6	34
30	Eco-design and evaluation for production of 7-aminocephalosporanic acid from carbohydrate wastes discharged after microalgae-based biodiesel production. <i>Journal of Cleaner Production</i> , 2016, 133, 511-517.	4.6	12
31	Drug Delivery Using Novel Biological and Synthetic Materials. <i>BioMed Research International</i> , 2015, 2015, 1-2.	0.9	0
32	Biomimetic Self-Templated Hierarchical Structures of Collagen-Like Peptide Amphiphiles. <i>Nano Letters</i> , 2015, 15, 7138-7145.	4.5	64
33	Biomimetic sensor design. <i>Nanoscale</i> , 2015, 7, 18379-18391.	2.8	25
34	Selective and Sensitive Sensing of Flame Retardant Chemicals Through Phage Display Discovered Recognition Peptide. <i>Nano Letters</i> , 2015, 15, 7697-7703.	4.5	13
35	Protein-based functional nanomaterial design for bioengineering applications. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2015, 7, 69-97.	3.3	43
36	Synthetic Phage for Tissue Regeneration. <i>Mediators of Inflammation</i> , 2014, 2014, 1-11.	1.4	21

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37	Field Effect Transistors: Direct-Write Complementary Graphene Field Effect Transistors and Junctions via Near-Field Electrospinning (Small 10/2014). <i>Small</i> , 2014, 10, 2112-2112.	5.2	0
38	Direct-Write Complementary Graphene Field Effect Transistors and Junctions via Near-Field Electrospinning. <i>Small</i> , 2014, 10, 1920-1925.	5.2	23
39	Biomimetic virus-based colourimetric sensors. <i>Nature Communications</i> , 2014, 5, 3043.	5.8	207
40	M13 Bacteriophage Displaying DOPA on Surfaces: Fabrication of Various Nanostructured Inorganic Materials without Time-Consuming Screening Processes. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 18653-18660.	4.0	23
41	Collagen mimetic peptide engineered M13 bacteriophage for collagen targeting and imaging in cancer. <i>Biomaterials</i> , 2014, 35, 9236-9245.	5.7	41
42	Graphene-Based Materials Functionalized with Elastin-like Polypeptides. <i>Langmuir</i> , 2014, 30, 2223-2229.	1.6	30
43	Cyclic RGD Peptide Incorporation on Phage Major Coat Proteins for Improved Internalization by HeLa Cells. <i>Bioconjugate Chemistry</i> , 2014, 25, 216-223.	1.8	33
44	Phage-based nanomaterials for biomedical applications. <i>Acta Biomaterialia</i> , 2014, 10, 1741-1750.	4.1	48
45	Assembly of Bacteriophage into Functional Materials. <i>Chemical Record</i> , 2013, 13, 43-59.	2.9	85
46	Phage Display for the Discovery of Hydroxyapatite-Associated Peptides. <i>Methods in Enzymology</i> , 2013, 532, 305-323.	0.4	5
47	Impedimetric graphene-based biosensors for the detection of polybrominated diphenyl ethers. <i>Nanoscale</i> , 2013, 5, 6048.	2.8	22
48	Light-Controlled Graphene-Elastin Composite Hydrogel Actuators. <i>Nano Letters</i> , 2013, 13, 2826-2830.	4.5	515
49	Phage-Chips for Novel Optically Readable Tissue Engineering Assays. <i>Langmuir</i> , 2012, 28, 2166-2172.	1.6	44
50	Virus-based piezoelectric energy generation. <i>Nature Nanotechnology</i> , 2012, 7, 351-356.	15.6	377
51	Engineered phage-based therapeutic materials inhibit <i>Chlamydia trachomatis</i> intracellular infection. <i>Biomaterials</i> , 2012, 33, 5166-5174.	5.7	57
52	Facile growth factor immobilization platform based on engineered phage matrices. <i>Soft Matter</i> , 2011, 7, 1660.	1.2	32
53	Facile patterning of genetically engineered M13 bacteriophage for directional growth of human fibroblast cells. <i>Soft Matter</i> , 2011, 7, 363-368.	1.2	76
54	Early Osteogenic Differentiation of Mouse Preosteoblasts Induced by Collagen-Derived DGEA-Peptide on Nanofibrous Phage Tissue Matrices. <i>Biomacromolecules</i> , 2011, 12, 987-996.	2.6	76

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55	Polydiacetylene Incorporated with Peptide Receptors for the Detection of Trinitrotoluene Explosives. <i>Langmuir</i> , 2011, 27, 3180-3187.	1.6	74
56	Evolutionary Screening of Collagen-like Peptides That Nucleate Hydroxyapatite Crystals. <i>Langmuir</i> , 2011, 27, 7620-7628.	1.6	75
57	Selective and Sensitive TNT Sensors Using Biomimetic Polydiacetylene-Coated CNT-FETs. <i>ACS Nano</i> , 2011, 5, 2824-2830.	7.3	143
58	Elastin-Like Polypeptide Based Hydroxyapatite Bionanocomposites. <i>Biomacromolecules</i> , 2011, 12, 672-680.	2.6	49
59	Microscopic Study of Hydroxyapatite Dissolution As Affected by Fluoride Ions. <i>Langmuir</i> , 2011, 27, 5335-5339.	1.6	21
60	Biomimetic self-templating supramolecular structures. <i>Nature</i> , 2011, 478, 364-368.	13.7	382
61	Genetically Engineered Liquid-Crystalline Viral Films for Directing Neural Cell Growth. <i>Langmuir</i> , 2010, 26, 9885-9890.	1.6	60
62	Fabrication of engineered M13 bacteriophages into liquid crystalline films and fibers for directional growth and encapsulation of fibroblasts. <i>Soft Matter</i> , 2010, 6, 4454.	1.2	41
63	Genetically Engineered Nanofiber-Like Viruses For Tissue Regenerating Materials. <i>Nano Letters</i> , 2009, 9, 846-852.	4.5	183
64	Effect of Salinity on Hydroxyapatite Dissolution Studied by Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2009, 113, 3369-3372.	1.5	39
65	Engineering Phage Materials with Desired Peptide Display: Rational Design Sustained through Natural Selection. <i>Bioconjugate Chemistry</i> , 2009, 20, 2300-2310.	1.8	29
66	Characterization of the Dominant Molecular Step Orientations on Hydroxyapatite (100) Surfaces. <i>Langmuir</i> , 2009, 25, 7205-7208.	1.6	24
67	Polymer-Oligopeptide Composite Coating for Selective Detection of Explosives in Water. <i>Analytical Chemistry</i> , 2009, 81, 4192-4199.	3.2	77
68	Defect Induced Asymmetric Pit Formation on Hydroxyapatite. <i>Langmuir</i> , 2008, 24, 11063-11066.	1.6	28
69	Evolutionary Screening of Biomimetic Coatings for Selective Detection of Explosives. <i>Langmuir</i> , 2008, 24, 4938-4943.	1.6	141
70	Phage as templates for hybrid materials and mediators for nanomaterial synthesis. <i>Current Opinion in Chemical Biology</i> , 2006, 10, 246-252.	2.8	126
71	Molecular orientation of a ZnS-nanocrystal-modified M13 virus on a silicon substrate. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 629-635.	2.4	6
72	Virus-Based Fabrication of Micro- and Nanofibers Using Electrospinning. <i>Nano Letters</i> , 2004, 4, 387-390.	4.5	184

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73	Genetically Driven Assembly of Nanorings Based on the M13 Virus. Nano Letters, 2004, 4, 23-27.	4.5	108
74	Viruses as vehicles for growth, organization and assembly of materials11The Golden Jubilee Issue"Selected topics in Materials Science and Engineering: Past, Present and Future, edited by S. Suresh.. Acta Materialia, 2003, 51, 5867-5880.	3.8	295
75	Chiral Smectic C Structures of Virus-Based Films. Langmuir, 2003, 19, 1592-1598.	1.6	82
76	Ordering of Quantum Dots Using Genetically Engineered Viruses. Science, 2002, 296, 892-895.	6.0	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.	11.1	129
79	Biomimetic virus-based colourimetric sensors. , 0, .		1