Lorenz W Meinel

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	The inflammatory responses to silk films in vitro and in vivo. Biomaterials, 2005, 26, 147-155.	5.7	725
2	Bone Tissue Engineering Using Human Mesenchymal Stem Cells: Effects of Scaffold Material and Medium Flow. Annals of Biomedical Engineering, 2004, 32, 112-122.	1.3	483
3	Silk fibroin as a vehicle for drug delivery applications. Journal of Controlled Release, 2011, 150, 128-141.	4.8	441
4	Silk implants for the healing of critical size bone defects. Bone, 2005, 37, 688-698.	1.4	416
5	Growth factor gradients via microsphere delivery in biopolymer scaffolds for osteochondral tissue engineering. Journal of Controlled Release, 2009, 134, 81-90.	4.8	385
6	Control of in vitro tissue-engineered bone-like structures using human mesenchymal stem cells and porous silk scaffolds. Biomaterials, 2007, 28, 1152-1162.	5.7	335
7	Silk fibroin as an organic polymer for controlled drug delivery. Journal of Controlled Release, 2006, 111, 219-227.	4.8	328
8	Engineering bone-like tissuein vitro using human bone marrow stem cells and silk scaffolds. Journal of Biomedical Materials Research Part B, 2004, 71A, 25-34.	3.0	319
9	Localized delivery of growth factors for bone repair. European Journal of Pharmaceutics and Biopharmaceutics, 2004, 58, 197-208.	2.0	299
10	Engineering cartilage-like tissue using human mesenchymal stem cells and silk protein scaffolds. Biotechnology and Bioengineering, 2004, 88, 379-391.	1.7	285
11	Bone morphogenetic protein-2 decorated silk fibroin films induce osteogenic differentiation of human bone marrow stromal cells. Journal of Biomedical Materials Research Part B, 2004, 71A, 528-537.	3.0	282
12	Silk microspheres for encapsulation and controlled release. Journal of Controlled Release, 2007, 117, 360-370.	4.8	276
13	Electrospun matrices for localized drug delivery: Current technologies and selected biomedical applications. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 81, 1-13.	2.0	241
14	Silk fibroin spheres as a platform for controlled drug delivery. Journal of Controlled Release, 2008, 132, 26-34.	4.8	236
15	Silk based biomaterials to heal critical sized femur defects. Bone, 2006, 39, 922-931.	1.4	214
16	Intracellular Trafficking of Angiotensin II and its AT ₁ and AT ₂ Receptors: Evidence for Selective Sorting of Receptor and Ligand. Molecular Endocrinology, 1997, 11, 1266-1277.	3.7	210
17	Porous silk fibroin 3-D scaffolds for delivery of bone morphogenetic protein-2in vitro andin vivo. Journal of Biomedical Materials Research - Part A, 2006, 78A, 324-334.	2.1	201
18	Insulin-like growth factor I releasing silk fibroin scaffolds induce chondrogenic differentiation of human mesenchymal stem cells. Journal of Controlled Release, 2008, 127, 12-21.	4.8	194

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19	Nondestructive micro-computed tomography for biological imaging and quantification of scaffold–bone interaction in vivo. Biomaterials, 2007, 28, 2479-2490.	5.7	186
20	Optimization strategies for electrospun silk fibroin tissue engineering scaffolds. Biomaterials, 2009, 30, 3058-3067.	5.7	185
21	Cartilage-like Tissue Engineering Using Silk Scaffolds and Mesenchymal Stem Cells. Tissue Engineering, 2006, 12, 2729-2738.	4.9	181
22	Silk coatings on PLGA and alginate microspheres for protein delivery. Biomaterials, 2007, 28, 4161-4169.	5.7	181
23	Silk fibroin matrices for the controlled release of nerve growth factor (NGF). Biomaterials, 2007, 28, 4449-4460.	5.7	179
24	Osteogenesis by human mesenchymal stem cells cultured on silk biomaterials: Comparison of adenovirus mediated gene transfer and protein delivery of BMP-2. Biomaterials, 2006, 27, 4993-5002.	5.7	171
25	Stabilizing insulin-like growth factor-I in poly(d,l-lactide-co-glycolide) microspheres. Journal of Controlled Release, 2001, 70, 193-202.	4.8	147
26	BMP-silk composite matrices heal critically sized femoral defects. Bone, 2007, 41, 247-255.	1.4	144
27	Localized insulin-like growth factor I delivery to enhance new bone formation. Bone, 2003, 33, 660-672.	1.4	141
28	Silk fibroin/hyaluronan scaffolds for human mesenchymal stem cell culture in tissue engineering. Biomaterials, 2009, 30, 5068-5076.	5.7	133
29	Effect of Scaffold Design on Bone MorphologyIn Vitro. Tissue Engineering, 2006, 12, 3417-3429.	4.9	126
30	Bioreactor cultivation of osteochondral grafts. Orthodontics and Craniofacial Research, 2005, 8, 209-218.	1.2	111
31	Microporous silk fibroin scaffolds embedding PLGA microparticles for controlled growth factor delivery in tissue engineering. Biomaterials, 2009, 30, 2571-2581.	5.7	100
32	Silk constructs for delivery of musculoskeletal therapeutics. Advanced Drug Delivery Reviews, 2012, 64, 1111-1122.	6.6	100
33	Differential Distribution of β-Adrenergic Receptor Subtypes in Blood Vessels of Knockout Mice Lacking β1- or β2-Adrenergic Receptors. Molecular Pharmacology, 2001, 60, 955-962.	1.0	95
34	â€~Pro et contra' ionic liquid drugs – Challenges and opportunities for pharmaceutical translation. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 94, 291-304.	2.0	87
35	Biopolymer-Based Growth Factor Delivery for Tissue Repair: From Natural Concepts to Engineered Systems. Tissue Engineering - Part B: Reviews, 2009, 15, 263-289.	2.5	85
36	Biophysical properties of chitosan/siRNA polyplexes: Profiling the polymer/siRNA interactions and bioactivity. Journal of Controlled Release, 2012, 157, 297-304.	4.8	79

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37	Bone targeting for the treatment of osteoporosis. Journal of Controlled Release, 2012, 161, 198-213.	4.8	79
38	The use of sulfonated silk fibroin derivatives to control binding, delivery and potency of FGF-2 in tissue regeneration. Biomaterials, 2010, 31, 1403-1413.	5.7	78
39	Insulin-like Growth Factor I—Releasing Alginate-Tricalciumphosphate Composites for Bone Regeneration. Pharmaceutical Research, 2005, 22, 940-950.	1.7	76
40	Waterâ€Soluble Triarylborane Chromophores for One―and Twoâ€Photon Excited Fluorescence Imaging of Mitochondria in Cells. Chemistry - A European Journal, 2016, 22, 14701-14706.	1.7	75
41	Transformation of acidic poorly water soluble drugs into ionic liquids. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 94, 73-82.	2.0	74
42	Silk fibroin layer-by-layer microcapsules for localized gene delivery. Biomaterials, 2014, 35, 7929-7939.	5.7	72
43	The effect of hyaluronic acid on silk fibroin conformation. Biomaterials, 2008, 29, 633-642.	5.7	64
44	Effects of chondrogenic and osteogenic regulatory factors on composite constructs grown using human mesenchymal stem cells, silk scaffolds and bioreactors. Journal of the Royal Society Interface, 2008, 5, 929-939.	1.5	57
45	Decoration of silk fibroin by click chemistry for biomedical application. Journal of Structural Biology, 2014, 186, 420-430.	1.3	56
46	Vascular Hypertrophy and Increased P70S6 Kinase in Mice Lacking the Angiotensin II AT 2 Receptor. Circulation, 2001, 104, 2602-2607.	1.6	54
47	Non-Invasive Time-Lapsed Monitoring and Quantification of Engineered Bone-Like Tissue. Annals of Biomedical Engineering, 2007, 35, 1657-1667.	1.3	54
48	Application of natural and semi-synthetic polymers for the delivery of sensitive drugs. International Materials Reviews, 2015, 60, 101-131.	9.4	53
49	Remodeling of tissue-engineered bone structures in vivo. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 85, 119-129.	2.0	52
50	Loadingâ€Dependent Structural Model of Polymeric Micelles Encapsulating Curcumin by Solidâ€State NMR Spectroscopy. Angewandte Chemie - International Edition, 2019, 58, 18540-18546.	7.2	52
51	Biocompatibility and osteoconduction of macroporous silk fibroin implants in cortical defects in sheep. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 85, 107-118.	2.0	50
52	Oral drug delivery of therapeutic gases — Carbon monoxide release for gastrointestinal diseases. Journal of Controlled Release, 2014, 189, 46-53.	4.8	50
53	Fatty acid composition analysis in polysorbate 80 with high performance liquid chromatography coupled to charged aerosol detection. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 94, 569-574.	2.0	44
54	Bioorthogonal strategies for site-directed decoration of biomaterials with therapeutic proteins. Journal of Controlled Release, 2018, 273, 68-85.	4.8	44

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55	IGF-I and GH stimulate Phex mRNA expression in lungs and bones and 1,25-dihydroxyvitamin D(3) production in hypophysectomized rats. European Journal of Endocrinology, 2002, 146, 97-105.	1.9	42
56	Bioactive Electrospun Fibers: Fabrication Strategies and a Critical Review of Surface-Sensitive Characterization and Quantification. Chemical Reviews, 2021, 121, 11194-11237.	23.0	41
57	Prevention of colitis by controlled oral drug delivery of carbon monoxide. Journal of Controlled Release, 2016, 239, 128-136.	4.8	40
58	Site-Specific POxylation of Interleukin-4. ACS Biomaterials Science and Engineering, 2017, 3, 304-312.	2.6	40
59	Biocompatible Azide–Alkyne "Click―Reactions for Surface Decoration of Glycoâ€Engineered Cells. ChemBioChem, 2016, 17, 866-875.	1.3	37
60	Ionic Liquid Versus Prodrug Strategy to Address Formulation Challenges. Pharmaceutical Research, 2015, 32, 2154-2167.	1.7	36
61	Where is the Clinical Breakthrough of Heme Oxygenase-1 / Carbon Monoxide Therapeutics?. Current Pharmaceutical Design, 2018, 24, 2264-2282.	0.9	36
62	Bio-orthogonal Immobilization of Fibroblast Growth Factor 2 for Spatial Controlled Cell Proliferation. ACS Biomaterials Science and Engineering, 2015, 1, 740-746.	2.6	35
63	Synthesis and Structure–Activity Relationships of New Quinolone-Type Molecules against Trypanosoma brucei. Journal of Medicinal Chemistry, 2012, 55, 2538-2548.	2.9	34
64	The support of adenosine release from adenosine kinase deficient ES cells by silk substrates. Biomaterials, 2006, 27, 4599-4607.	5.7	33
65	Predicting critical micelle concentration and micelle molecular weight of polysorbate 80 using compendial methods. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 94, 559-568.	2.0	33
66	Site-Directed Immobilization of BMP-2: Two Approaches for the Production of Innovative Osteoinductive Scaffolds. Biomacromolecules, 2017, 18, 695-708.	2.6	32
67	Transport of Alkamides from Echinacea Species through Caco-2 Monolayers1. Planta Medica, 2002, 68, 469-471.	0.7	31
68	A perfluoroaromatic abiotic analog of H2 relaxin enabled by rapid flow-based peptide synthesis. Organic and Biomolecular Chemistry, 2016, 14, 3345-3349.	1.5	31
69	Deciphering the mechanism of protein interaction with silk fibroin for drug delivery systems. Biomaterials, 2014, 35, 3427-3434.	5.7	30
70	Mapping the pharmaceutical design space by amorphous ionic liquid strategies. Journal of Controlled Release, 2017, 268, 314-322.	4.8	30
71	Localized delivery of carbon monoxide. European Journal of Pharmaceutics and Biopharmaceutics, 2017, 118, 3-12.	2.0	30
72	Design and validation of a novel bioreactor principle to combine online micro-computed tomography monitoring and mechanical loading in bone tissue engineering. Review of Scientific Instruments, 2010, 81, 014303.	0.6	28

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73	Topical azithromycin for the prevention of Lyme borreliosis: a randomised, placebo-controlled, phase 3 efficacy trial. Lancet Infectious Diseases, The, 2017, 17, 322-329.	4.6	28
74	Bioresponsive release of insulin-like growth factor-I from its PEGylated conjugate. Journal of Controlled Release, 2018, 279, 17-28.	4.8	27
75	Nanotransporters for drug delivery. Current Opinion in Biotechnology, 2016, 39, 35-40.	3.3	26
76	Bioinspired co-crystals of Imatinib providing enhanced kinetic solubility. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 128, 290-299.	2.0	26
77	Insulin-like growth factor-I aerosol formulations for pulmonary delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 85, 61-68.	2.0	25
78	In situ guided tissue regeneration in musculoskeletal diseases and aging. Cell and Tissue Research, 2012, 347, 725-735.	1.5	24
79	Impact of IGF-I release kinetics on bone healing: A preliminary study in sheep. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 85, 99-106.	2.0	24
80	An experimental animal model of aseptic loosening of hip prostheses in sheep to study early biochemical changes at the interface membrane. BMC Musculoskeletal Disorders, 2004, 5, 7.	0.8	23
81	Controlled Protein Delivery from Electrospun Non-Wovens: Novel Combination of Protein Crystals and a Biodegradable Release Matrix. Molecular Pharmaceutics, 2014, 11, 2372-2380.	2.3	23
82	Delivery of ionizable hydrophilic drugs based on pharmaceutical formulation of ion pairs and ionic liquids. European Journal of Pharmaceutics and Biopharmaceutics, 2020, 156, 203-218.	2.0	23
83	Matrix Metalloproteinase Responsive Delivery of Myostatin Inhibitors. Pharmaceutical Research, 2017, 34, 58-72.	1.7	22
84	Overcoming safety challenges in CO therapy – Extracorporeal CO delivery under precise feedback control of systemic carboxyhemoglobin levels. Journal of Controlled Release, 2018, 279, 336-344.	4.8	22
85	Interleukinâ€4 licked Surfaces Drive M2 Macrophage Polarization. ChemBioChem, 2016, 17, 2123-2128.	1.3	21
86	Frugal Innovation for Point-of-Care Diagnostics Controlling Outbreaks and Epidemics. ACS Biomaterials Science and Engineering, 2020, 6, 2709-2725.	2.6	21
87	Molecular Insights into Site-Specific Interferon-α2a Bioconjugates Originated from PEG, LPG, and PEtOx. Biomacromolecules, 2021, 22, 4521-4534.	2.6	21
88	Pathogen- and Host-Directed Antileishmanial Effects Mediated by Polyhexanide (PHMB). PLoS Neglected Tropical Diseases, 2015, 9, e0004041.	1.3	20
89	Recent advances in crystalline and amorphous particulate protein formulations for controlled delivery. Asian Journal of Pharmaceutical Sciences, 2016, 11, 469-477.	4.3	20
90	Geometrical and Structural Dynamics of Imatinib within Biorelevant Colloids. Molecular Pharmaceutics, 2018, 15, 4470-4480.	2.3	20

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91	From silk spinning in insects and spiders to advanced silk fibroin drug delivery systems. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 97, 392-399.	2.0	18
92	Cytotoxic properties of the alkaloid rutaecarpine and its oligocyclic derivatives and chemical modifications to enhance water-solubility. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 4937-4941.	1.0	17
93	Targeting interleukin-4 to the arthritic joint. Journal of Controlled Release, 2020, 326, 172-180.	4.8	17
94	Pulmonary Insulin-like Growth Factor I Delivery from Trehalose and Silk-Fibroin Microparticles. ACS Biomaterials Science and Engineering, 2015, 1, 119-129.	2.6	16
95	Controlled therapeutic gas delivery systems for quality-improved transplants. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 97, 96-106.	2.0	16
96	Luminescent Metal–Organic Framework Mixedâ€Matrix Membranes from Lanthanide Metal–Organic Frameworks in Polysulfone and Matrimid. European Journal of Inorganic Chemistry, 2016, 2016, 4408-4415.	1.0	16
97	Metabolic Glycoengineering of Cell-Derived Matrices and Cell Surfaces: A Combination of Key Principles and Step-by-Step Procedures. ACS Biomaterials Science and Engineering, 2019, 5, 215-233.	2.6	16
98	Probing unnatural amino acid integration into enhanced green fluorescent protein by genetic code expansion with a high-throughput screening platform. Journal of Biological Engineering, 2016, 10, 11.	2.0	15
99	Carbon Monoxide Exerts Functional Neuroprotection After Cardiac Arrest Using Extracorporeal Resuscitation in Pigs. Critical Care Medicine, 2020, 48, e299-e307.	0.4	15
100	Fibrin Sealants: Challenges and Solutions. ACS Biomaterials Science and Engineering, 2022, 8, 2220-2231.	2.6	15
101	Site-Specific Conjugated Insulin-like Growth Factor-I for Anabolic Therapy. ACS Biomaterials Science and Engineering, 2018, 4, 819-825.	2.6	14
102	Leveraging bile solubilization of poorly water-soluble drugs by rational polymer selection. Journal of Controlled Release, 2021, 330, 36-48.	4.8	14
103	Quinolone Amides as Antitrypanosomal Lead Compounds with <i>In Vivo</i> Activity. Antimicrobial Agents and Chemotherapy, 2016, 60, 4442-4452.	1.4	13
104	Biodistribution of Site-Specific PEGylated Fibroblast Growth Factor-2. ACS Biomaterials Science and Engineering, 2020, 6, 425-432.	2.6	13
105	Protein release from electrospun nonwovens: Improving the release characteristics through rational combination of polyester blend matrices with polidocanol. International Journal of Pharmaceutics, 2014, 477, 273-281.	2.6	12
106	Characterization of complexes between phenethylamine enantiomers and βâ€cyclodextrin derivatives by capillary electrophoresis—Determination of binding constants and complex mobilities. Electrophoresis, 2017, 38, 1188-1200.	1.3	12
107	Bioconjugation strategies and clinical implications of Interferon-bioconjugates. European Journal of Pharmaceutics and Biopharmaceutics, 2022, 172, 157-167.	2.0	12
108	Influence of salt type and ionic strength on self-assembly of dextran sulfate-ciprofloxacin nanoplexes. International Journal of Pharmaceutics, 2015, 486, 21-29.	2.6	11

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109	Drug-Induced Dynamics of Bile Colloids. Langmuir, 2021, 37, 2543-2551.	1.6	11
110	Chemo-Enzymatic PEGylation/POxylation of Murine Interleukin-4. Bioconjugate Chemistry, 2022, 33, 97-104.	1.8	11
111	Development of silk fibroin-based beads for immobilized cell fermentations. Journal of Microencapsulation, 2010, 27, 1-9.	1.2	9
112	Investigation of orally delivered carbon monoxide for postoperative ileus. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 130, 306-313.	2.0	9
113	Extracorporeal resuscitation with carbon monoxide improves renal function by targeting inflammatory pathways in cardiac arrest in pigs. American Journal of Physiology - Renal Physiology, 2019, 317, F1572-F1581.	1.3	8
114	Carbon monoxide improves haemodynamics during extracorporeal resuscitation in pigs. Cardiovascular Research, 2020, 116, 158-170.	1.8	8
115	Antibacterial Anacardic Acid Derivatives. ACS Infectious Diseases, 2020, 6, 1674-1685.	1.8	8
116	Merging bioresponsive release of insulin-like growth factor I with 3D printable thermogelling hydrogels. Journal of Controlled Release, 2022, 347, 115-126.	4.8	8
117	Controlling Supramolecular Structures of Drugs by Light. Molecular Pharmaceutics, 2020, 17, 4704-4708.	2.3	7
118	Bioinspired Ion Pairs Transforming Papaverine into a Protic Ionic Liquid and Salts. ACS Omega, 2020, 5, 19202-19209.	1.6	7
119	Linear Polyglycerol for N-terminal-selective Modification of Interleukin-4. Journal of Pharmaceutical Sciences, 2022, 111, 1642-1651.	1.6	7
120	Polymer selection impacts the pharmaceutical profile of site-specifically conjugated Interferon-α2a. Journal of Controlled Release, 2022, 348, 881-892.	4.8	7
121	Tissue Engineering of Bone. , 2006, , 323-373.		6
122	Simple and rapid high performance liquid chromatography method for the determination of polidocanol as bulk product and in pharmaceutical polymer matrices using charged aerosol detection. Journal of Pharmaceutical and Biomedical Analysis, 2015, 104, 17-20.	1.4	6
123	Surface functionalization allowing repetitive use of optical sensors for realâ€time detection of antibodyâ€bacteria interaction. Journal of Biophotonics, 2016, 9, 730-737.	1.1	6
124	Mass-Encoded Reporters Reporting Proteolytic Activity from within the Extracellular Matrix. ACS Biomaterials Science and Engineering, 2020, 6, 5240-5253.	2.6	6
125	Concentration and composition dependent aggregation of Pluronic- and Poly-(2-oxazolin)-Efavirenz formulations in biorelevant media. Journal of Colloid and Interface Science, 2022, 606, 1179-1192.	5.0	6
126	Drug delivery of Insulin-like growth factor I. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 97, 329-337.	2.0	5

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127	Impurity profiling of l-asparagine monohydrate by ion pair chromatography applying low wavelength UV detection. Journal of Pharmaceutical and Biomedical Analysis, 2016, 131, 202-207.	1.4	5
128	Site-Directed Immobilization of Bone Morphogenetic Protein 2 to Solid Surfaces by Click Chemistry. Journal of Visualized Experiments, 2018, , .	0.2	5
129	Tamper-proof tablets for distinction between counterfeit and originator drugs through PEG coding. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 99, 1-6.	2.0	4
130	Radiolabeled ¹¹¹ In-FGF-2 Is Suitable for <i>In Vitro</i> / <i>Ex Vivo</i> Evaluations and <i>In Vivo</i> Imaging. Molecular Pharmaceutics, 2017, 14, 639-648.	2.3	4
131	Opening NADPH oxidase inhibitors for in vivo translation. European Journal of Pharmaceutics and Biopharmaceutics, 2017, 115, 206-217.	2.0	4
132	Predicting Bile and Lipid Interaction for Drug Substances. Molecular Pharmaceutics, 2022, 19, 2868-2876.	2.3	4
133	A Complete and Versatile Protocol: Decoration of Cell-Derived Matrices with Mass-Encoded Peptides for Multiplexed Protease Activity Detection. ACS Biomaterials Science and Engineering, 2020, 6, 6598-6617.	2.6	2
134	Concepts and Prototypes for Formulation and Delivery of Biopharmaceuticals and in Tissue Engineering. Chimia, 2004, 58, 711-717.	0.3	1
135	Amorphous Ionic Liquid Strategies for Pharmaceutical Application. , 2019, , 1-11.		1
136	Cartilage-like Tissue Engineering Using Silk Scaffolds and Mesenchymal Stem Cells. Tissue Engineering, 2006, .	4.9	1
137	CONTROL OF TISSUE-ENGINEERED BONE-LIKE STRUCTURES ON SILK FIBROIN SCAFFOLDS. Journal of Biomechanics, 2008, 41, S163.	0.9	0
138	Natur hÃ ¤ fig Vorbild. Nachrichten Aus Der Chemie, 2016, 64, 605-609.	0.0	0
139	Effect of Scaffold Design on Bone Morphologyin Vitro. Tissue Engineering, 2006, .	4.9	0
140	Nanoparticle Design to Improve Transport Across the Intestinal Barrier. Environmental Chemistry for A Sustainable World, 2020, , 271-315.	0.3	0

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