

Besim Ben-Nissan

List of Publications by Year in descending order

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112
papers

1,793
citations

257450

24
h-index

345221

36
g-index

120
all docs

120
docs citations

120
times ranked

2140
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical ageing of hydroxyapatite sol-gel solutions. <i>Biomaterials</i> , 1998, 19, 2291-2296.	11.4	100
2	Sol-gel production of bioactive nanocoatings for medical applications. Part 1: an introduction. <i>Nanomedicine</i> , 2006, 1, 311-319.	3.3	96
3	Sol-gel production of bioactive nanocoatings for medical applications. Part II: current research and development. <i>Nanomedicine</i> , 2007, 2, 51-61.	3.3	82
4	Formation and Characterization of an Aqueous Zirconium Hydroxide Colloid. <i>Chemistry of Materials</i> , 2002, 14, 4313-4319.	6.7	81
5	Drug Delivery From Polymer-Based Nanopharmaceuticals—An Experimental Study Complemented by Simulations of Selected Diffusion Processes. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 37.	4.1	54
6	Development of carbon nanotube-reinforced hydroxyapatite bioceramics. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 496-498.	2.7	47
7	Marine Structure Derived Calcium Phosphate-Polymer Biocomposites for Local Antibiotic Delivery. <i>Marine Drugs</i> , 2015, 13, 666-680.	4.6	45
8	A review: Recent advances in sol-gel-derived hydroxyapatite nanocoatings for clinical applications. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5442-5453.	3.8	42
9	Sol-Gel Derived Hydroxylapatite Coatings for Biomedical Applications. <i>Materials and Manufacturing Processes</i> , 1995, 10, 205-216.	4.7	39
10	The dependence of structural and mechanical properties on film thickness in sol-gel zirconia films. <i>Journal of Materials Research</i> , 1998, 13, 388-395.	2.6	39
11	Natural and Synthetic Coral Biomineralization for Human Bone Revitalization. <i>Trends in Biotechnology</i> , 2017, 35, 43-54.	9.3	39
12	Controlled Release of Simvastatin from Biomimetic β -TCP Drug Delivery System. <i>PLoS ONE</i> , 2013, 8, e54676.	2.5	37
13	A Therapeutic Potential for Marine Skeletal Proteins in Bone Regeneration. <i>Marine Drugs</i> , 2013, 11, 1203-1220.	4.6	36
14	Mechanical properties of inorganic biomedical thin films and their corresponding testing methods. <i>Surface and Coatings Technology</i> , 2013, 233, 39-48.	4.8	36
15	Bioresorbable zinc hydroxyapatite guided bone regeneration membrane for bone regeneration. <i>Clinical Oral Implants Research</i> , 2016, 27, 354-360.	4.5	35
16	Multilayer sol-gel zirconia coatings on 316 stainless steel. <i>Surface and Coatings Technology</i> , 1996, 86-87, 153-158.	4.8	34
17	Bone Regeneration of Rat Tibial Defect by Zinc-Tricalcium Phosphate (Zn-TCP) Synthesized from Porous Foraminifera Carbonate Macrospheres. <i>Marine Drugs</i> , 2013, 11, 5148-5158.	4.6	34
18	Biocompatibility of a new biodegradable polymer-hydroxyapatite composite for biomedical applications. <i>Journal of Drug Delivery Science and Technology</i> , 2017, 38, 72-77.	3.0	34

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19	Targeting and Dissolution Characteristics of Bone Forming and Antibacterial Drugs by Harnessing the Structure of Microspherical Shells from Coral Beach Sand. <i>Advanced Engineering Materials</i> , 2011, 13, 93-99.	3.5	30
20	Calcium phosphate nanocoatings and nanocomposites, part 2: thin films for slow drug delivery and osteomyelitis. <i>Nanomedicine</i> , 2016, 11, 531-544.	3.3	26
21	Marine Skeletons: Towards Hard Tissue Repair and Regeneration. <i>Marine Drugs</i> , 2018, 16, 225.	4.6	26
22	The Therapeutic Effect on Bone Mineral Formation from Biomimetic Zinc Containing Tricalcium Phosphate (ZnTCP) in Zinc-Deficient Osteoporotic Mice. <i>PLoS ONE</i> , 2013, 8, e71821.	2.5	25
23	Calcium phosphate nanocoatings and nanocomposites, part I: recent developments and advancements in tissue engineering and bioimaging. <i>Nanomedicine</i> , 2015, 10, 2249-2261.	3.3	25
24	Mechanical testing of antimicrobial biocomposite coating on metallic medical implants as drug delivery system. <i>Materials Science and Engineering C</i> , 2019, 104, 109757.	7.3	25
25	Bioceramics: Processing Routes and Mechanical Evaluation.. <i>Journal of the Ceramic Society of Japan</i> , 2002, 110, 601-608.	1.3	24
26	The effectiveness of the controlled release of simvastatin from \hat{I}^2 -TCP macrosphere in the treatment of OVX mice. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, E195-E203.	2.7	24
27	Antibiotic delivery potential of nano- and micro-porous marine structure-derived \hat{I}^2 -tricalcium phosphate spheres for medical applications. <i>Nanomedicine</i> , 2014, 9, 1131-1139.	3.3	23
28	Effect of biomimetic zinc-containing tricalcium phosphate (Zn-TCP) on the growth and osteogenic differentiation of mesenchymal stem cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015, 9, 852-858.	2.7	23
29	Effect of carbon dioxide on self-setting apatite cement formation from tetracalcium phosphate and dicalcium phosphate dihydrate; ATR-IR and chemoinformatics analysis. <i>Colloid and Polymer Science</i> , 2015, 293, 2781-2788.	2.1	23
30	Adult stem cell coatings for regenerative medicine. <i>Materials Today</i> , 2012, 15, 60-66.	14.2	22
31	The morphology and structure of sol-gel derived zirconia films on stainless steel. <i>Thin Solid Films</i> , 1997, 311, 196-206.	1.8	21
32	Finite-element modeling and analysis in nanomedicine and dentistry. <i>Nanomedicine</i> , 2014, 9, 1681-1695.	3.3	20
33	In vitro bioactivity and stem cells attachment of three-dimensionally ordered macroporous bioactive glass incorporating iron oxides. <i>Journal of Non-Crystalline Solids</i> , 2016, 452, 62-73.	3.1	20
34	Functionalisation of Ti6Al4V and hydroxyapatite surfaces with combined peptides based on KKLPGA and EEEEEEE peptides. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 160, 154-160.	5.0	20
35	Development of Carbon Nanotube Reinforced Hydroxyapatite Bioceramics. <i>Key Engineering Materials</i> , 2006, 309-311, 597-602.	0.4	18
36	Finite element stress analysis of Ti-6Al-4V and partially stabilized zirconia dental implant during clenching. <i>Acta Odontologica Scandinavica</i> , 2012, 70, 353-361.	1.6	18

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37	Antibiotic Containing Poly Lactic Acid/Hydroxyapatite Biocomposite Coatings for Dental Implant Applications. <i>Key Engineering Materials</i> , 0, 758, 120-125.	0.4	18
38	Improvement of Elongation in Nanosurface Modified Bioglass/PLA Thin Film Composites. <i>Current Nanoscience</i> , 2014, 10, 200-204.	1.2	17
39	Development of antimicrobial composite coatings for drug release in dental, orthopaedic and neural prostheses applications. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	16
40	Nanobiomaterial Coatings in Dentistry. <i>Frontiers of Oral Biology</i> , 2015, 17, 49-61.	1.5	16
41	Development and dissolution studies of bisphosphonate (clodronate)-containing hydroxyapatite-poly(lactic acid) biocomposites for slow drug delivery. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 1723-1731.	2.7	15
42	Production of the novel fibrous structure of poly(μ -caprolactone)/tri-calcium phosphate/hexagonal boron nitride composites for bone tissue engineering. <i>Journal of the Australian Ceramic Society</i> , 2018, 54, 251-260.	1.9	15
43	Biomechanics and functional distortion of the human mandible. <i>Journal of Investigative and Clinical Dentistry</i> , 2015, 6, 241-251.	1.8	14
44	Introduction to Synthetic and Biologic Apatites. <i>Springer Series in Biomaterials Science and Engineering</i> , 2014, , 1-17.	1.0	14
45	Micro- and Nano-Indentation of a Hydroxyapatite-Carbon Nanotube Composite. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 3936-3941.	0.9	13
46	Nano Calcium Phosphate Powder Production through Chemical Agitation from Atlantic Deer Cowrie Shells (<i>Cypraea cervus Linnaeus</i>). <i>Key Engineering Materials</i> , 0, 587, 80-85.	0.4	13
47	Coral Exoskeletons as a Precursor Material for the Development of a Calcium Phosphate Drug Delivery System for Bone Tissue Engineering. <i>Biological and Pharmaceutical Bulletin</i> , 2013, 36, 1662-1665.	1.4	13
48	Temperature Effects on a Hydroxyapatite Precursor Solution. <i>Journal of Physical Chemistry B</i> , 2004, 108, 5516-5521.	2.6	12
49	Human Bone Derived Cell (HBDC) Behaviour of Sol-Gel Derived Carbonate Hydroxyapatite Coatings on Titanium Alloy Substrates. <i>Key Engineering Materials</i> , 2005, 284-286, 541-544.	0.4	12
50	Simvastatinâ€Loaded Î²â€TCP Drug Delivery System Induces Bone Formation and Prevents Rhabdomyolysis in OVX Mice. <i>Advanced Healthcare Materials</i> , 2013, 2, 678-681.	7.6	12
51	Surface modifications of titanium alloy using nanobioceramic-based coatings to improve osseointegration: a review. <i>Materials Technology</i> , 2020, 35, 742-751.	3.0	12
52	Bone regeneration of calvarial defect using marine calcareous-derived beta-tricalcium phosphate microspheres. <i>Journal of Tissue Engineering</i> , 2014, 5, 204173141452344.	5.5	11
53	Effects of micromovement on the changes in stress distribution of partially stabilized zirconia (PS-ZrO ₂) dental implants and bridge during clenching: A three-dimensional finite element analysis. <i>Acta Odontologica Scandinavica</i> , 2013, 71, 72-81.	1.6	10
54	Hydroxyapatite/PLA Biocomposite Thin Films for Slow Drug Delivery of Antibiotics for the Treatment of Bone and Implant-Related Infections. <i>Key Engineering Materials</i> , 0, 696, 271-276.	0.4	10

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55	The natural nano-bioceramic powder production from organ pipe red coral (<i>Tubipora musica</i>) by a simple chemical conversion method. <i>Journal of the Australian Ceramic Society</i> , 2018, 54, 317-329.	1.9	10
56	Marine Structures as Templates for Biomaterials. <i>Springer Series in Biomaterials Science and Engineering</i> , 2014, , 391-414.	1.0	10
57	Advances in Calcium Phosphate Nanocoatings and Nanocomposites. <i>Springer Series in Biomaterials Science and Engineering</i> , 2014, , 485-509.	1.0	10
58	Micro-Spectrometric Investigations of Inorganic Components of the Black Corals for Biomedical Applications. <i>Key Engineering Materials</i> , 2005, 284-286, 297-300.	0.4	9
59	Three-Dimensional Implant Positioning with a Piezosurgery Implant Site Preparation Technique and an Intraoral Surgical Navigation System: Case Report. <i>International Journal of Oral and Maxillofacial Implants</i> , 2017, 32, e163-e165.	1.4	9
60	Conversion of Calcified Algae (<i>Halimeda </i>sp) and Hard Coral (<i>Porites </i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542	0.4	8
61	Synthesis and cytotoxicity analysis of porous β -TCP/starch bioceramics. <i>Journal of the Australian Ceramic Society</i> , 2022, 58, 487-494.	1.9	7
62	Comparison of Surface Morphology in Sol-Gel Treated Coralline Hydroxyapatite Structures for Implant Purposes. <i>Key Engineering Materials</i> , 2001, 192-195, 959-962.	0.4	6
63	Adhesion of Sol-Gel Derived Zirconia Nano-Coatings on Surface Treated Titanium. <i>Key Engineering Materials</i> , 2004, 254-256, 455-458.	0.4	6
64	Morphological Stability of Plate-Like Hydroxyapatite. <i>Key Engineering Materials</i> , 2003, 240-242, 481-484.	0.4	6
65	Neutron Characterisation of Hydroxyapatite Bioceramics. <i>Key Engineering Materials</i> , 2006, 309-311, 61-64.	0.4	6
66	Adhesion and Scratch Testing of Antibiotic Loaded Poly-Lactic Acid Biocomposite Thin Films on Metallic Implants. <i>Key Engineering Materials</i> , 0, 782, 195-200.	0.4	6
67	Comparative Analysis of NF- κ B in the MyD88-Mediated Pathway After Implantation of Titanium Alloy and Stainless Steel and the Role of Regulatory T Cells. <i>World Neurosurgery</i> , 2020, 144, e138-e148.	1.3	6
68	The synthesis of hydroxyapatite from artificially grown Red Sea hydrozoan coral for antimicrobial drug delivery system applications. <i>Journal of the Australian Ceramic Society</i> , 2021, 57, 399-407.	1.9	6
69	Thin Film Ceramic Coatings via the Sol-Gel Process. <i>Key Engineering Materials</i> , 1991, 53-55, 427-432.	0.4	5
70	Sol-Gel Derived Nano-Coated Coralline Hydroxyapatite for Load Bearing Applications. <i>Key Engineering Materials</i> , 2004, 254-256, 301-304.	0.4	5
71	Bio-Lubrication Phenomena affect Residual Stresses and Phases of Zirconia Implants. <i>Key Engineering Materials</i> , 2003, 240-242, 781-784.	0.4	5
72	Calcium Phosphate Nanocoatings: Production, Physical and Biological Properties, and Biomedical Applications. , 2017, , 105-149.		5

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73	Advances in Bioglass and Glass Ceramics for Biomedical Applications. Springer Series in Biomaterials Science and Engineering, 2017, , 133-161.	1.0	5
74	Hydrothermal Conversion and Sol-Gel Coating of Red Sea Coral. Key Engineering Materials, 2003, 240-242, 43-46.	0.4	4
75	A Comparative Study of Thai and Australian Crocodile Bone for Use as a Potential Biomaterial. Key Engineering Materials, 2006, 309-311, 15-18.	0.4	4
76	Changes in the Activity of Osteoblast Like Cells with Sol-Gel Derived Hydroxyapatite and Zirconia Nanocoatings. Key Engineering Materials, 2008, 361-363, 633-636.	0.4	4
77	Nano-Bioceramic Production via Mechano-Chemical Conversion (Ultrasonication). Key Engineering Materials, 0, 529-530, 609-614.	0.4	4
78	Kinetics and the Theoretical Aspects of Drug Release from PLA/HAp Thin Films. Key Engineering Materials, 0, 758, 113-119.	0.4	4
79	Bioceramics. , 2019, , 16-33.		4
80	Specifiable biomimetic microsponges for timed release of crystal entrapped biomolecules useful in bone repair. Journal of Materials Chemistry B, 2020, 8, 7143-7148.	5.8	4
81	Human Osteoclasts Behaviour on Sol-Gel Derived Carbonate Hydroxyapatite Coatings on Anodized Titanium Alloy Substrates. Key Engineering Materials, 2006, 309-311, 709-712.	0.4	3
82	Fracture Toughness of Nanoscale Hydroxyapatite Coatings on Titanium Substrates. Key Engineering Materials, 2006, 306-308, 1307-1312.	0.4	3
83	Adipose Stem Cell Coating of Biomimetic \hat{I}^2 -TCP Macrospheres by Use of Laboratory Centrifuge. BioResearch Open Access, 2013, 2, 67-71.	2.6	3
84	Biomimetics and Marine Materials in Drug Delivery and Tissue Engineering. , 2016, , 521-544.		3
85	Marine Derived Biomaterials for Bone Regeneration and Tissue Engineering: Learning from Nature. Springer Series in Biomaterials Science and Engineering, 2019, , 51-78.	1.0	3
86	Marine-Based Calcium Phosphates from Hard Coral and Calcified Algae for Biomedical Applications. Springer Series in Biomaterials Science and Engineering, 2019, , 137-153.	1.0	3
87	Modifying an Implant: A Mini-review of Dental Implant Biomaterials. BIO Integration, 2021, 2, .	1.3	3
88	Mechanical Properties and Characterisation of Sol-Gel Coated Coralline Hydroxyapatite. Key Engineering Materials, 2001, 218-220, 379-382.	0.4	2
89	Ligand Substitution and Complex Formation in Hydroxyapatite Sol-Gel System. Key Engineering Materials, 2001, 218-220, 79-84.	0.4	2
90	^{31}P Solution State NMR Investigation of the Hydrolysis of a New Alkoxide Sol-Gel Hydroxyapatite. Key Engineering Materials, 2002, 218-220, 75-78.	0.4	2

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91	Finite Element Analysis of Ceramic Dental Implants Incorporated into the Human Mandible. Key Engineering Materials, 2003, 254-256, 707-712.	0.4	2
92	Does Size Matter? - The Effect of Volume on the Compressive Strength of Open Cell Brittle Ceramics. Advanced Materials Research, 2008, 41-42, 221-226.	0.3	2
93	Novel Bioceramic Production via Mechanochemical Conversion from Plate Limpet (&i>Tectura&i> &i>&scutum&i>) - Shells. Key Engineering Materials, 0, 696, 45-50.	0.4	2
94	Nanostructured Calcium Phosphates for Drug, Gene, DNA and Protein Delivery and as Anticancer Chemotherapeutic Devices. , 2017, , 227-256.		2
95	Biomimetics: Bio-inspired Engineering of Human Tissue Scaffolding for Regenerative Medicine. , 2008, , .		2
96	Biomimetic Applications in Regenerative Medicine: Scaffolds, Transplantation Modules, Tissue Homing Devices and Stem Cells. , 2011, , 821-850.		2
97	BIOCERAMICS: AN INTRODUCTION. Biomaterials Engineering and Processing Series, 2004, , 6-1-6-36.	0.0	2
98	Finite Element Modelling of a Metal-Ceramic Interface. Key Engineering Materials, 1991, 53-55, 107-110.	0.4	1
99	Water-Lubrication Effects on Zirconia Debris Production in Hip-Joint Simulators. Key Engineering Materials, 2003, 240-242, 835-838.	0.4	1
100	TEMPLATE DIRECTED SYNTHESIS OF NANOSIZED BONE-LIKE APATITE. , 2004, , .		1
101	A New Role for Marine Skeletal Proteins in Regenerative Orthopaedics. Key Engineering Materials, 0, 529-530, 654-659.	0.4	1
102	Biomimetics and Marine Materials in Drug Delivery and Tissue Engineering: From Natural Role Models to Bone Regeneration. Key Engineering Materials, 0, 587, 229-232.	0.4	1
103	Femoral neck remodelling after hip resurfacing surgery: a radiological study. ANZ Journal of Surgery, 2014, 84, 639-642.	0.7	1
104	Multifunctional-Dual Drug Delivery Poly-Lactic Acid Biocomposite Coating with Hydroxyapatite for Bone Implants. Key Engineering Materials, 2018, 782, 212-217.	0.4	1
105	Marine-Based Biomaterials for Tissue Engineering Applications. Springer Series in Biomaterials Science and Engineering, 2019, , 99-111.	1.0	1
106	Integrated Finite Element and Reliability Analysis in Ceramic Design and Science. Key Engineering Materials, 1991, 53-55, 36-46.	0.4	0
107	Sol-Gel Precursor Chemistry. Key Engineering Materials, 1991, 53-55, 445-450.	0.4	0
108	The Controlled Release of Simvastatin from Biomimetic Macrospheres. Key Engineering Materials, 0, 529-530, 461-464.	0.4	0

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109	Biomimetics and Marine Materials in Drug Delivery and Tissue Engineering. , 2015, , 1-24.		0
110	Thoughts and Tribulations on Bioceramics and Marine Structures. Springer Series in Biomaterials Science and Engineering, 2019, , 1-25.	1.0	0
111	Production and Characterization of Calcium Phosphates from Marine Structures: The Fundamentals Basics. Springer Series in Biomaterials Science and Engineering, 2019, , 113-135.	1.0	0
112	Development and In Vitro Analysis of a New Biodegradable PLA/Hydroxyapatite (HAp) Composite for Biomedical Applications. , 2017, , 411-423.		0