George E Stan

List of Publications by Year
in descending order

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102 papers	2,698 citations	159358 30 h-index	223531 46 g-index
106 all docs	106 docs citations	106 times ranked	3066 citing authors

#	Article	IF	Citations
1	Bioactive Glasses and Glass-Ceramics for Healthcare Applications in Bone Regeneration and Tissue Engineering. Materials, 2018, 11, 2530.	1.3	196
2	Cationic Substitutions in Hydroxyapatite: Current Status of the Derived Biofunctional Effects and Their In Vitro Interrogation Methods. Materials, 2018, 11, 2081.	1.3	179
3	Progress in Hydroxyapatiteâ€“Starch Based Sustainable Biomaterials for Biomedical Bone Substitution Applications. ACS Sustainable Chemistry and Engineering, 2017, 5, 8491-8512.	3.2	136
4	Differentiation of mesenchymal stem cells onto highly adherent radio frequencyâ€sputtered carbonated hydroxylapatite thin films. Journal of Biomedical Materials Research - Part A, 2010, 95A, 1203-1214.	2.1	76
5	Novel doped hydroxyapatite thin films obtained by pulsed laser deposition. Applied Surface Science, 2013, 265, 41-49.	3.1	75
6	Synthesis, Characterization, and Antimicrobial Activity of Magnesium-Doped Hydroxyapatite Suspensions. Nanomaterials, 2019, 9, 1295.	1.9	68
7	Bioglass implant-coating interactions in synthetic physiological fluids with varying degrees of biomimicry. International Journal of Nanomedicine, 2017, Volume 12, 683-707.	3.3	66
8	Antifungal activity of Ag:hydroxyapatite thin films synthesized by pulsed laser deposition on Ti and Ti modified by TiO2 nanotubes substrates. Applied Surface Science, 2014, 293, 37-45.	3.1	65
9	Comparative physical, chemical and biological assessment of simple and titanium-doped ovine dentine-derived hydroxyapatite coatings fabricated by pulsed laser deposition. Applied Surface Science, 2017, 413, 129-139.	3.1	55
10	Structural, compositional, mechanical characterization and biological assessment of bovine-derived hydroxyapatite coatings reinforced with MgF 2 or MgO for implants functionalization. Materials Science and Engineering C, 2016, 59, 863-874.	3.8	53
11	Double layer structure of ZnO thin films deposited by RF-magnetron sputtering on glass substrate. Applied Surface Science, 2012, 258, 8819-8824.	3.1	48
12	Structural and biological evaluation of lignin addition to simple and silver-doped hydroxyapatite thin films synthesized by matrix-assisted pulsed laser evaporation. Journal of Materials Science: Materials in Medicine, 2015, 26, 5333.	1.7	47
13	Characterization of PLD grown WO 3 thin films for gas sensing. Applied Surface Science, 2017, 417, 218-223.	3.1	47
14	Strong bonding between sputtered bioglassâ€“ceramic films and Ti-substrate implants induced by atomic inter-diffusion post-deposition heat-treatments. Applied Surface Science, 2013, 280, 530-538.	3.1	42
15	Effect of annealing upon the structure and adhesion properties of sputtered bio-glass/titanium coatings. Applied Surface Science, 2009, 255, 9132-9138.	3.1	41
16	Hydroxyapatite thin films synthesized by pulsed laser deposition and magnetron sputtering on PMMA substrates for medical applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 169, 159-168.	1.7	41
17	Highly adherent bioactive glass thin films synthetized by magnetron sputtering at low temperature. Journal of Materials Science: Materials in Medicine, 2011, 22, 2693-2710.	1.7	40
18	Superior biofunctionality of dental implant fixtures uniformly coated with durable bioglass films by magnetron sputtering. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 51, 313-327.	1.5	36

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19	Comprehensive In Vitro Testing of Calcium Phosphate-Based Bioceramics with Orthopedic and Dentistry Applications. Materials, 2019, 12, 3704.	1.3	36
20	Bioactive glass thin films deposited by magnetron sputtering technique: The role of working pressure. Applied Surface Science, 2010, 256, 7102-7110.	3.1	35
21	Fabrication of antimicrobial silver-doped carbon structures by combinatorial pulsed laser deposition. International Journal of Pharmaceutics, 2016, 515, 592-606.	2.6	34
22	Synthesis and Characterization of Jellified Composites from Bovine Bone-Derived Hydroxyapatite and Starch as Precursors for Robocasting. ACS Omega, 2018, 3, 1338-1349.	1.6	34
23	Influence of the modulated two-step synthesis of biogenic hydroxyapatite on biomimetic productsâ€™ surface. Applied Surface Science, 2018, 438, 147-157.	3.1	34
24	Radical modification of the wetting behavior of textiles coated with ZnO thin films and nanoparticles when changing the ambient pressure in the pulsed laser deposition process. Journal of Applied Physics, 2011, 110, .	1.1	33
25	Biomimetic nanocrystalline apatite coatings synthesized by Matrix Assisted Pulsed Laser Evaporation for medical applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 181, 56-63.	1.7	33
26	Mechanical, Corrosion and Biological Properties of Room-Temperature Sputtered Aluminum Nitride Films with Dissimilar Nanostructure. Nanomaterials, 2017, 7, 394.	1.9	33
27	Physical-chemical characterization and biological assessment of simple and lithium-doped biological-derived hydroxyapatite thin films for a new generation of metallic implants. Applied Surface Science, 2018, 439, 724-735.	3.1	32
28	Structural and optical properties of c-axis oriented aluminum nitride thin films prepared at low temperature by reactive radio-frequency magnetron sputtering. Thin Solid Films, 2012, 524, 328-333.	0.8	31
29	Electric and pyroelectric properties of AlN thin films deposited by reactive magnetron sputtering on Si substrate. Applied Surface Science, 2015, 353, 1195-1202.	3.1	31
30	Adhesion evaluation of different bioceramic coatings on Mgâ€“Ca alloys for biomedical applications. Journal of Adhesion Science and Technology, 2016, 30, 1968-1983.	1.4	31
31	New solutions for combatting implant bacterial infection based on silver nano-dispersed and gallium incorporated phosphate bioactive glass sputtered films: A preliminary study. Bioactive Materials, 2022, 8, 325-340.	8.6	31
32	Direct Immobilization of Biomolecules through Magnetic Forces on Ni Electrodes via Ni Nanoparticles: Applications in Electrochemical Biosensors. ACS Applied Materials & Interfaces, 2019, 11, 19867-19877.	4.0	30
33	Biomineralization capability of adherent bio-glass films prepared by magnetron sputtering. Journal of Materials Science: Materials in Medicine, 2010, 21, 1047-1055.	1.7	29
34	On the bioactivity of adherent bioglass thin films synthesized by magnetron sputtering techniques. Thin Solid Films, 2010, 518, 5955-5964.	0.8	29
35	AlN on silicon based surface acoustic wave resonators operating at 5â€…GHz. Electronics Letters, 2009, 45, 1196.	0.5	28
36	Nanomechanical characterization of bioglass films synthesized by magnetron sputtering. Thin Solid Films, 2014, 553, 166-172.	0.8	28

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37	The Role of Ambient Gas and Pressure on the Structuring of Hard Diamond-Like Carbon Films Synthesized by Pulsed Laser Deposition. Materials, 2015, 8, 3284-3305.	1.3	28
38	Ferroelectric Field Effect Transistors Based on PZT and IGZO. IEEE Journal of the Electron Devices Society, 2019, 7, 268-275.	1.2	28
39	Antibacterial efficiency of alkali-free bio-glasses incorporating ZnO and/or SrO as therapeutic agents. Ceramics International, 2019, 45, 4368-4380.	2.3	27
40	Synthesis and characterization of biocompatible polymer-ceramic film structures as favorable interface in guided bone regeneration. Applied Surface Science, 2019, 494, 335-352.	3.1	26
41	Naturally-Derived Biphasic Calcium Phosphates through Increased Phosphorus-Based Reagent Amounts for Biomedical Applications. Materials, 2019, 12, 381.	1.3	25
42	Submicrometer Hollow Bioglass Cones Deposited by Radio Frequency Magnetron Sputtering: Formation Mechanism, Properties, and Prospective Biomedical Applications. ACS Applied Materials & Interfaces, 2016, 8, 4357-4367.	4.0	24
43	Osteoblast Cell Response to Naturally Derived Calcium Phosphate-Based Materials. Materials, 2018, 11, 1097.	1.3	24
44	Internal and external surface features of newly developed porous ceramics with random interconnected 3D channels by a fibrous sacrificial porogen method. Applied Surface Science, 2019, 489, 226-238.	3.1	24
45	The bioactivity mechanism of magnetron sputtered bioglass thin films. Applied Surface Science, 2012, 258, 9840-9848.	3.1	23
46	The Beneficial Mechanical and Biological Outcomes of Thin Copper-Gallium Doped Silica-Rich Bio-Active Glass Implant-Type Coatings. Coatings, 2020, 10, 1119.	1.2	23
47	Structural investigations of Ge nanoparticles embedded in an amorphous SiO2 matrix. Journal of Nanoparticle Research, 2011, 13, 221-232.	0.8	22
48	New bio-active, antimicrobial and adherent coatings of nanostructured carbon double-reinforced with silver and silicon by Matrix-Assisted Pulsed Laser Evaporation for medical applications. Applied Surface Science, 2018, 441, 871-883.	3.1	22
49	First stages of bioactivity of glass-ceramics thin films prepared by magnetron sputtering technique. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 169, 101-105.	1.7	21
50	Combinatorial MAPLE deposition of antimicrobial orthopedic maps fabricated from chitosan and biomimetic apatite powders. International Journal of Pharmaceutics, 2016, 511, 505-515.	2.6	21
51	Prototype Orthopedic Bone Plates 3D Printed by Laser Melting Deposition. Materials, 2019, 12, 906.	1.3	21
52	Effect of the processing parameters on surface, physico-chemical and mechanical features of bioceramics synthesized from abundant carp fish bones. Ceramics International, 2020, 46, 10159-10171.	2.3	21
53	Multi-layer haemocompatible diamond-like carbon coatings obtained by combined radio frequency plasma enhanced chemical vapor deposition and magnetron sputtering. Journal of Materials Science: Materials in Medicine, 2013, 24, 2695-2707.	1.7	20
54	Thickness Influence on In Vitro Biocompatibility of Titanium Nitride Thin Films Synthesized by Pulsed Laser Deposition. Materials, 2016, 9, 38.	1.3	19

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55	Gallium incorporation into phosphate based glasses: Bulk and thin film properties. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 371-382.	1.5	19
56	Physical properties of AlxIn1â^'xN thin film alloys sputtered at low temperature. Journal of Applied Physics, 2014, 116, .	1.1	18
57	Sn-doped TiO2 nanotubular thin film for photocatalytic degradation of methyl orange dye. Journal of Physics and Chemistry of Solids, 2020, 147, 109609.	1.9	18
58	Transparent field-effect transistors based on AlN-gate dielectric and IGZO-channel semiconductor. Applied Surface Science, 2016, 379, 270-276.	3.1	17
59	Dextran-Thyme Magnesium-Doped Hydroxyapatite Composite Antimicrobial Coatings. Coatings, 2020, 10, 57.	1.2	17
60	Electrochemical and In Vitro Biological Evaluation of Bio-Active Coatings Deposited by Magnetron Sputtering onto Biocompatible Mg-0.8Ca Alloy. Materials, 2022, 15, 3100.	1.3	17
61	Fabrication of naturel pumice/hydroxyapatite composite for biomedical engineering. BioMedical Engineering OnLine, 2016, 15, 81.	1.3	16
62	Animal Origin Bioactive Hydroxyapatite Thin Films Synthesized by RF-Magnetron Sputtering on 3D Printed Cranial Implants. Metals, 2019, 9, 1332.	1.0	15
63	Multi-stage pulsed laser deposition of aluminum nitride at different temperatures. Applied Surface Science, 2016, 374, 143-150.	3.1	14
64	Preparations of Silver/Montmorillonite Biocomposite Multilayers and Their Antifungal Activity. Coatings, 2019, 9, 817.	1.2	14
65	Fish Bone Derived Bi-Phasic Calcium Phosphate Coatings Fabricated by Pulsed Laser Deposition for Biomedical Applications. Marine Drugs, 2020, 18, 623.	2.2	14
66	Antimicrobial and Cytocompatible Bovine Hydroxyapatite-Alumina-Zeolite Composite Coatings Synthesized by Pulsed Laser Deposition from Low-Cost Sustainable Natural Resources. ACS Sustainable Chemistry and Engineering, 2020, 8, 4026-4036.	3.2	14
67	Influence of laser pulse frequency on the microstructure of aluminum nitride thin films synthesized by pulsed laser deposition. Applied Surface Science, 2017, 394, 197-204.	3.1	13
68	Effect of dilute doping and non-equilibrium synthesis on the structural, luminescent and magnetic properties of nanocrystalline Zn1-xNixO (x = 0.0025 â€“ 0.03). Materials Research Bulletin, 2019, 115, 37-48.	2.7	13
69	Comprehensive analysis of compatible natural fibre as sacrificial porogen template for tailored ceramic 3D bioproducts destined for hard tissue reconstruction. Ceramics International, 2021, 47, 5318-5334.	2.3	12
70	Evaluation of the Segregation of Paramagnetic Impurities at Grain Boundaries in Nanostructured ZnO Films. ACS Applied Materials & Interfaces, 2014, 6, 14231-14238.	4.0	11
71	Synthesis and characterization of antibacterial drug loaded Î²-tricalcium phosphate powders for bone engineering applications. Journal of Materials Science: Materials in Medicine, 2020, 31, 16.	1.7	11
72	ZnO Thin Films Deposited on Textile Material Substrates for Biomedical Applications. NATO Science for Peace and Security Series A: Chemistry and Biology, 2012, , 207-210.	0.5	11

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73	Pulsed Laser Fabrication of TiO2 Buffer Layers for Dye Sensitized Solar Cells. Nanomaterials, 2019, 9, 746.	1.9	10
74	Role of vanadium oxide on the lithium silicate glass structure and properties. Journal of the American Ceramic Society, 2021, 104, 2495-2505.	1.9	10
75	Magneto-optical properties of borophosphate glasses co-doped with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:mrow><mml:mi>T</mml:mi><mml:msup><mml:mi>b</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mo> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.svg"><mml:mrow><mml:mi>D</mml:mi><mml:msup><mml:mi>y</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mo> Journal of Non-Crystalline Solids, 2021, 568, 120957	1.5	10
76	Phosphate bioglass thin-films: Cross-area uniformity, structure and biological performance tailored by the simple modification of magnetron sputtering gas pressure. Applied Surface Science, 2021, 541, 148640.	3.1	9
77	The Physico-Chemical Properties and Exploratory Real-Time Cell Analysis of Hydroxyapatite Nanopowders Substituted with Ce, Mg, Sr, and Zn (0.5â€“5 at.%). Materials, 2021, 14, 3808.	1.3	9
78	The Behavior of Gold Metallized AlN/Si- and AlN/Glass-Based SAW Structures as Temperature Sensors. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1938-1948.	1.7	8
79	Orientation of the nanocrystallites in AlN thin film determined by FTIR spectroscopy. Journal of Physics: Conference Series, 2016, 682, 012024.	0.3	7
80	Surface-enhanced Raman scattering activity of niobium surface after irradiation with femtosecond laser pulses. Journal of Applied Physics, 2015, 118, .	1.1	6
81	Characterization of MAPLE deposited WO₃thin films for electrochromic applications. Journal of Physics: Conference Series, 2017, 780, 012013.	0.3	5
82	Preliminary Studies on Graphene-Reinforced 3D Products Obtained by the One-Stage Sacrificial Template Method for Bone Reconstruction Applications. Journal of Functional Biomaterials, 2021, 12, 13.	1.8	5
83	Physical Vapour Deposited Biomedical Coatings. Coatings, 2021, 11, 619.	1.2	5
84	Effect of Vanadium Oxide on the Structure and Li-Ion Conductivity of Lithium Silicate Glasses. Journal of Physical Chemistry C, 2021, 125, 16843-16857.	1.5	5
85	InN Based Water Condensation Sensors on Glass and Flexible Plastic Substrates. Sensors, 2013, 13, 16940-16949.	2.1	4
86	AlN/Si Based SAW Resonators for Very High Sensitivity Temperature Sensors. , 2018, , .		4
87	Fiber-Templated 3D Calcium-Phosphate Scaffolds for Biomedical Applications: The Role of the Thermal Treatment Ambient on Physico-Chemical Properties. Materials, 2021, 14, 2198.	1.3	4
88	Pulsed laser deposition of highly textured La5Ca9Cu24O41 films on SrLaAlO4 (100) and Gd3Ga5O12 (100) substrates. Applied Surface Science, 2012, 258, 9475-9479.	3.1	3
89	Bioactive glass thin films synthesized by advanced pulsed laser techniques. Journal of Physics: Conference Series, 2016, 764, 012020.	0.3	3
90	Independent and complementary bio-functional effects of CuO and Ga2O3 incorporated as therapeutic agents in silica- and phosphate-based bioactive glasses. Journal of Materiomics, 2022, 8, 893-905.	2.8	3

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91	Erratum to â€œEffect of annealing upon the structure and adhesion properties of sputtered bio-glass/titanium coatingsâ€•[Appl. Surf. Sci. 255 (2009) 9132â€“9138]. Applied Surface Science, 2009, 256, 1617.	3.1	2
92	Influence of a hydrophobin underlayer on the structuring and antimicrobial properties of ZnO films. Journal of Materials Science, 2013, 48, 8329-8336.	1.7	2
93	Optimized silicon reinforcement of carbon coatings by pulsed laser technique for superior functional biomedical surfaces fabrication. Biofabrication, 2017, 9, 025029.	3.7	2
94	Electro-active properties of nanostructured films of cytosine and guanine nucleobases. Nanotechnology, 2021, 32, 415702.	1.3	2
95	C-doped TiO2 nanotubes with pulsed laser deposited Bi2O3 films for photovoltaic application. Ceramics International, 2021, , .	2.3	2
96	Hydroxyapatite thin films synthesized by Pulsed Laser Deposition onto titanium mesh implants for cranioplasty applications. Proceedings of SPIE, 2013, , .	0.8	1
97	Tailoring the electric and magnetic properties of submicron-sized metallic multilayered systems by TVA atomic inter-diffusion engineered processes. Applied Surface Science, 2015, 358, 619-626.	3.1	1
98	Studies on Tribological Behavior of Aluminum Nitride-Coated Steel. IOP Conference Series: Materials Science and Engineering, 2017, 174, 012052.	0.3	1
99	Increased Bioactivity of Cranio-spinal Implants Functionalized with Hydroxyapatite Nanostructured Coatings: Morpho-structural Characterization and In-Vitro Evaluation. , 2010, , .		0
100	The Influence of Magnetron Sputtering Conditions on the Physical Properties of (00l) Oriented Nanostructured ZnO Thin Films. , 2011, , .		0
101	RF-Sputtered ZnO Thin Films: The Tailoring of Structural, Electrical and Optical Properties. Materials Research Society Symposia Proceedings, 2011, 1327, 31501.	0.1	0
102	Studies on Obtaining Porous Hydroxyapatite Structures Using Porogen Agents of Natural Origin. Proceedings (mdpi), 2019, 29, .	0.2	0