

# Emilio Alarcon

## List of Publications by Year in descending order

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Version: 2024-02-01

108  
papers

3,335  
citations

147801

31  
h-index

161849

54  
g-index

114  
all docs

114  
docs citations

114  
times ranked

5057  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D Bioprinted Cardiac Tissues and Devices for Tissue Maturation. <i>Cells Tissues Organs</i> , 2022, , 90-103.	2.3	5
2	Combined Methylglyoxal Scavenger and Collagen Hydrogel Therapy Prevents Adverse Remodeling and Improves Cardiac Function Post-Myocardial Infarction. <i>Advanced Functional Materials</i> , 2022, 32, 2108630.	14.9	14
3	Biofilm Inhibition and Antiviral Response of Cold Sprayed and Shot Peened Copper Surfaces: Effect of Surface Morphology and Microstructure. <i>Journal of Thermal Spray Technology</i> , 2022, 31, 130-144.	3.1	3
4	Nanoengineered Sprayable Therapy for Treating Myocardial Infarction. <i>ACS Nano</i> , 2022, 16, 3522-3537.	14.6	5
5	Recombinant Human Collagen Hydrogel Rapidly Reduces Methylglyoxal Adducts within Cardiomyocytes and Improves Borderzone Contractility after Myocardial Infarction in Mice. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	9
6	Integrated photothermal decontamination device for N95 respirators. <i>Scientific Reports</i> , 2021, 11, 1822.	3.3	7
7	Bioengineered Corneas Entering the Clinical Realm. <i>Reference Series in Biomedical Engineering</i> , 2021, , 557-587.	0.1	1
8	A low cost and open access system for rapid synthesis of large volumes of gold and silver nanoparticles. <i>Scientific Reports</i> , 2021, 11, 5420.	3.3	15
9	Mimicking biofilm formation and development: Recent progress in in vitro and in vivo biofilm models. <i>IScience</i> , 2021, 24, 102443.	4.1	114
10	Enhanced Antibacterial Properties of Copper Surfaces Using Cold Spray Shot Peening. , 2021, , .		1
11	Riboflavin Surface Modification of Poly(vinyl chloride) for Light-Triggered Control of Bacterial Biofilm and Virus Inactivation. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 32251-32262.	8.0	8
12	Building new cardiac vasculature and myocardium: where are we at?. <i>Current Opinion in Cardiology</i> , 2021, 36, 728-734.	1.8	2
13	Biosupramolecular complexes of amphiphilic photosensitizers with human serum albumin and cucurbit[7]uril as carriers for photodynamic therapy. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2021, 223, 112284.	3.8	10
14	Molecular rotors as reporters for viscosity of solutions of collagen like peptides. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 24545-24549.	2.8	3
15	Evaluation of Therapeutic Collagen-Based Biomaterials in the Infarcted Mouse Heart by Extracellular Matrix Targeted MALDI Imaging Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 2746-2754.	2.8	8
16	Multifunctional Nano and Collagen-Based Therapeutic Materials for Skin Repair. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 1124-1134.	5.2	16
17	BEaTS: an open access 3D printed device for in vitro electromechanical stimulation of human induced pluripotent stem cells. <i>Scientific Reports</i> , 2020, 10, 11274.	3.3	9
18	Lipoic acid capped silver nanoparticles: a facile route to covalent protein capping and oxidative stability within biological systems. <i>RSC Advances</i> , 2020, 10, 32953-32958.	3.6	11

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19	Collagen-Based Microcapsules As Therapeutic Materials for Stem Cell Therapies in Infarcted Myocardium. ACS Biomaterials Science and Engineering, 2020, 6, 4614-4622.	5.2	12
20	Delivering More of an Injectable Human Recombinant Collagen III Hydrogel Does Not Improve Its Therapeutic Efficacy for Treating Myocardial Infarction. ACS Biomaterials Science and Engineering, 2020, 6, 4256-4265.	5.2	12
21	Nanoengineering the surface of corneal implants: towards functional anti-microbial and biofilm materials. RSC Advances, 2020, 10, 23675-23681.	3.6	2
22	Deterministic paracrine repair of injured myocardium using microfluidic-based cocooning of heart explant-derived cells. Biomaterials, 2020, 247, 120010.	11.4	16
23	Biosynthetic alternatives for corneal transplant surgery. Expert Review of Ophthalmology, 2020, 15, 129-143.	0.6	16
24	Bioengineered Corneas Entering the Clinical Realm. , 2020, , 1-31.		0
25	Triazine mediated covalent antibiotic grafting on cotton fabrics as a modular approach for developing antimicrobial barriers. Cellulose, 2019, 26, 7495-7505.	4.9	10
26	Editorial: Functionalization at Nanoscale to Enhance Specific Biological Activities. Frontiers in Bioengineering and Biotechnology, 2019, 7, 178.	4.1	1
27	Optofluidic label-free SERS platform for rapid bacteria detection in serum. Sensors and Actuators B: Chemical, 2019, 300, 126907.	7.8	40
28	Light-Activated Peptide-Based Materials for Sutureless Wound Closure. ACS Applied Materials & Interfaces, 2019, 11, 45007-45015.	8.0	7
29	Injectable human recombinant collagen matrices limit adverse remodeling and improve cardiac function after myocardial infarction. Nature Communications, 2019, 10, 4866.	12.8	103
30	Peptide-Based Functional Biomaterials for Soft-Tissue Repair. Frontiers in Bioengineering and Biotechnology, 2019, 7, 205.	4.1	87
31	Nanoparticle Concentration vs Surface Area in the Interaction of Thiol-Containing Molecules: Toward a Rational Nanoarchitectural Design of Hybrid Materials. ACS Applied Materials & Interfaces, 2019, 11, 17697-17705.	8.0	9
32	Fundamental concepts on surface chemistry of nanomaterials. , 2019, , 1-19.		3
33	Electroconductive materials as biomimetic platforms for tissue regeneration. Biotechnology Advances, 2019, 37, 444-458.	11.7	32
34	Biomolecule Silver Nanoparticle-Based Materials for Biomedical Applications. , 2019, , 3485-3501.		0
35	Regulatory Normative of Nanomaterials for Their Use in Biomedicine. , 2019, , 195-208.		0
36	Nanomaterials for Its Use in Biomedicine: An Overview. , 2019, , 1-11.		0

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37	Deterministic Encapsulation of Human Cardiac Stem Cells in Variable Composition Nanoporous Gel Cocoons To Enhance Therapeutic Repair of Injured Myocardium. <i>ACS Nano</i> , 2018, 12, 4338-4350.	14.6	28
38	Protein capped nanosilver free radical oxidation: role of biomolecule capping on nanoparticle colloidal stability and protein oxidation. <i>Chemical Communications</i> , 2018, 54, 4724-4727.	4.1	9
39	Biomaterials-enabled cornea regeneration in patients at high risk for rejection of donor tissue transplantation. <i>Npj Regenerative Medicine</i> , 2018, 3, 2.	5.2	76
40	Short peptide analogs as alternatives to collagen in pro-regenerative corneal implants. <i>Acta Biomaterialia</i> , 2018, 69, 120-130.	8.3	48
41	NANoPoLC algorithm for correcting nanoparticle concentration by sample polydispersity. <i>Nanoscale</i> , 2018, 10, 3166-3170.	5.6	10
42	Atypical antioxidant activity of non-phenolic amino-coumarins. <i>RSC Advances</i> , 2018, 8, 1927-1933.	3.6	9
43	CLK-Peptides as Superior Surface Stabilizers for Silver Nano Structures: Role of Peptide Chain Length and Applications in Nanomedicine. <i>Biophysical Journal</i> , 2018, 114, 543a.	0.5	0
44	Combined methylglyoxal scavenger and collagen hydrogel therapy improves function of the infarcted heart. <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 124, 84.	1.9	0
45	Theoretical rationalisation of the photophysics of a TICT excited state of cinnamoyl- $\alpha$ -coumarin derivatives in homogeneous and biological membrane models. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 27621-27629.	2.8	10
46	Injection of a recombinant human collagen hydrogel improves cardiac function and reduces pathological remodeling post myocardial infarction. <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 124, 104.	1.9	0
47	Bacterial biofilm formation on implantable devices and approaches to its treatment and prevention. <i>Heliyon</i> , 2018, 4, e01067.	3.2	726
48	Nanoengineered Electroconductive Collagen-Based Cardiac Patch for Infarcted Myocardium Repair. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 44668-44677.	8.0	77
49	Effect of nanosilver surfaces on peptide reactivity towards reactive oxygen species. <i>Nanoscale</i> , 2018, 10, 15911-15917.	5.6	5
50	Biomolecule Silver Nanoparticle-Based Materials for Biomedical Applications. , 2018, , 1-17.		0
51	Recent advances in the design of light-activated tissue repair. <i>Photochemistry</i> , 2018, , 265-280.	0.2	0
52	Optimizing the host substrate environment for cardiac angiogenesis, arteriogenesis, and myogenesis. <i>Expert Opinion on Biological Therapy</i> , 2017, 17, 435-447.	3.1	4
53	Collagen-Based Photoactive Agent for Tissue Bonding. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 9265-9270.	8.0	22
54	Association models for binding of molecules to nanostructures. <i>Analyst</i> , The, 2017, 142, 2067-2089.	3.5	39

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55	Reaction Kinetics of Phenolic Antioxidants toward Photoinduced Pyranine Free Radicals in Biological Models. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6331-6340.	2.6	7
56	Electroconductive nanoengineered biomimetic hybrid fibers for cardiac tissue engineering. <i>Journal of Materials Chemistry B</i> , 2017, 5, 2402-2406.	5.8	34
57	Novel specific peptides as superior surface stabilizers for silver nano structures: role of peptide chain length. <i>Journal of Materials Chemistry B</i> , 2017, 5, 8925-8928.	5.8	14
58	Multi-functional thermo-crosslinkable collagen-metal nanoparticle composites for tissue regeneration: nanosilver vs. nanogold. <i>RSC Advances</i> , 2017, 7, 47704-47708.	3.6	45
59	Correction: Functionalised type-I collagen as a hydrogel building block for bio-orthogonal tissue engineering applications. <i>Journal of Materials Chemistry B</i> , 2017, 5, 5284-5284.	5.8	0
60	Rose Bengal Binding to Collagen and Tissue Photobonding. <i>ACS Omega</i> , 2017, 2, 6646-6657.	3.5	41
61	Nano-Engineered Biomaterials for Tissue Regeneration: What Has Been Achieved So Far?. <i>Frontiers in Materials</i> , 2016, 3, .	2.4	44
62	Nitroxide amide-BODIPY probe behavior in fibroblasts analyzed by advanced fluorescence microscopy. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 4023-4026.	2.8	9
63	Regenerative approaches for the cornea. <i>Journal of Internal Medicine</i> , 2016, 280, 276-286.	6.0	23
64	Photodynamic performance of zinc phthalocyanine in HeLa cells: A comparison between DPCC liposomes and BSA as delivery systems. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2016, 163, 385-390.	3.8	34
65	Sprayable peptide-modified silver nanoparticles as a barrier against bacterial colonization. <i>Nanoscale</i> , 2016, 8, 19200-19203.	5.6	30
66	Understanding the Interaction between Biomolecules and Silver Nanoparticles. <i>Biophysical Journal</i> , 2016, 110, 341a.	0.5	3
67	Functionalised type-I collagen as a hydrogel building block for bio-orthogonal tissue engineering applications. <i>Journal of Materials Chemistry B</i> , 2016, 4, 318-326.	5.8	59
68	New Insights into Peptide-Silver Nanoparticle Interaction: Deciphering the Role of Cysteine and Lysine in the Peptide Sequence. <i>Langmuir</i> , 2016, 32, 265-273.	3.5	49
69	Spherical silver nanoparticles in the detection of thermally denatured collagens. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 1993-1996.	3.7	11
70	Coloured cornea replacements with anti-infective properties: expanding the safe use of silver nanoparticles in regenerative medicine. <i>Nanoscale</i> , 2016, 8, 6484-6489.	5.6	74
71	Hollow core photonic crystal fiber for monitoring leukemia cells using surface enhanced Raman scattering (SERS). <i>Biomedical Optics Express</i> , 2015, 6, 4599.	2.9	58
72	Mapping Interactions between Silver Nanoparticles and Biomolecules at the Atomic Level. <i>Biophysical Journal</i> , 2015, 108, 633a.	0.5	1

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73	PET imaging of a collagen matrix reveals its effective injection and targeted retention in a mouse model of myocardial infarction. <i>Biomaterials</i> , 2015, 49, 18-26.	11.4	20
74	Photochemical synthesis of biocompatible and antibacterial silver nanoparticles embedded within polyurethane polymers. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 661-664.	2.9	16
75	Anti-microbiological and Anti-infective Activities of Silver. <i>Engineering Materials</i> , 2015, , 127-146.	0.6	13
76	Thermoplasmonic ssDNA Dynamic Release from Gold Nanoparticles Examined with Advanced Fluorescence Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1499-1503.	4.6	10
77	Safety and efficacy of composite collagen-silver nanoparticle hydrogels as tissue engineering scaffolds. <i>Nanoscale</i> , 2015, 7, 18789-18798.	5.6	83
78	Cornea Regeneration as an Alternative to Human Donor Transplantation. <i>European Ophthalmic Review</i> , 2015, 09, 111.	0.3	0
79	Silica nanoreactors from silylated riboflavin for efficient singlet oxygen delivery. <i>Journal of Materials Chemistry B</i> , 2014, 2, 4221.	5.8	7
80	LL37 peptide@silver nanoparticles: combining the best of the two worlds for skin infection control. <i>Nanoscale</i> , 2014, 6, 5725-5728.	5.6	60
81	NIR excitation of upconversion nano hybrids containing a surface grafted Bodipy induces oxygen-mediated cancer cell death. <i>Journal of Materials Chemistry B</i> , 2014, 2, 4554-4563.	5.8	40
82	Size-controlled photochemical synthesis of niobium nanoparticles. <i>Dalton Transactions</i> , 2013, 42, 14049.	3.3	6
83	Impact of Dye-Protein Interaction and Silver Nanoparticles on Rose Bengal Photophysical Behavior and Protein Photocrosslinking. <i>Photochemistry and Photobiology</i> , 2013, 89, 1433-1441.	2.5	18
84	Ketorolac beats ketoprofen: lower photodecarboxylation, photohemolysis and phototoxicity. <i>MedChemComm</i> , 2013, 4, 1619.	3.4	2
85	Human serum albumin as protecting agent of silver nanoparticles: role of the protein conformation and amine groups in the nanoparticle stabilization. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	58
86	Gold nanoparticle catalysis of the cis-trans isomerization of azobenzene. <i>Chemical Communications</i> , 2013, 49, 10073.	4.1	73
87	Portable, miniaturized, fibre delivered, multimodal CARS exoscope. <i>Optics Express</i> , 2013, 21, 17161.	3.4	20
88	EFFECT OF THE INCORPORATION INTO UNILAMINAR VESICLE ON THE PHOTODEGRADATION OF INDOLES SENSITIZED BY FLAVINS. <i>Journal of the Chilean Chemical Society</i> , 2013, 58, 2106-2109.	1.2	1
89	Anti-Peroxy Radical Quality and Antibacterial Properties of Rooibos Infusions and Their Pure Glycosylated Polyphenolic Constituents. <i>Molecules</i> , 2013, 18, 11264-11280.	3.8	22
90	Coumarin 314 Free Radical Cation: Formation, Properties, and Reactivity toward Phenolic Antioxidants. <i>Journal of Physical Chemistry A</i> , 2012, 116, 199-206.	2.5	15

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91	Unexpected solvent isotope effect on the triplet lifetime of methylene blue associated to cucurbit[7]uril. <i>Photochemical and Photobiological Sciences</i> , 2012, 11, 269-273.	2.9	18
92	The biocompatibility and antibacterial properties of collagen-stabilized, photochemically prepared silver nanoparticles. <i>Biomaterials</i> , 2012, 33, 4947-4956.	11.4	200
93	Tuning plasmon transitions and their applications in organic photochemistry. <i>Pure and Applied Chemistry</i> , 2011, 83, 913-930.	1.9	38
94	Photophysical behaviour and photodynamic activity of zinc phthalocyanines associated to liposomes. <i>Photochemical and Photobiological Sciences</i> , 2011, 10, 507-514.	2.9	60
95	Effect of $\hat{1}^3$ -radiation on green onion DNA integrity: Role of ascorbic acid and polyphenols against nucleic acid damage. <i>Food Chemistry</i> , 2011, 128, 735-741.	8.2	21
96	Effect of temperature on the photobehavior of Rose Bengal associated with dipalmitoylphosphatidyl choline liposomes. <i>Journal of Luminescence</i> , 2011, 131, 2468-2472.	3.1	4
97	Photophysics and photochemistry of dyes bound to human serum albumin are determined by the dye localization. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 93-102.	2.9	61
98	Stereoselective Interaction of Epimeric Naproxen-RGD Peptides with Human Serum Albumin. <i>Biomacromolecules</i> , 2010, 11, 2255-2260.	5.4	21
99	Surface Plasmons Control the Dynamics of Excited Triplet States in the Presence of Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 2010, 132, 6298-6299.	13.7	68
100	Photophysical characterization of atorvastatin (Lipitor <sup>®</sup> ) ortho-hydroxy metabolite: role of hydroxyl group on the drug photochemistry. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 1378.	2.9	13
101	Antioxidant reactivity toward nitroxide probes anchored into human serum albumin. A new model for studying antioxidant repairing capacity of protein radicals. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 6382-6385.	2.2	3
102	Photophysics and photochemistry of zinc phthalocyanine/bovine serum albumin adducts. <i>Photochemical and Photobiological Sciences</i> , 2009, 8, 255-263.	2.9	46
103	Photophysics and photochemistry of rose bengal bound to human serum albumin. <i>Photochemical and Photobiological Sciences</i> , 2009, 8, 933-943.	2.9	63
104	Distribution of urocanic acid isomers between aqueous solutions and n-octanol, liposomes or bovine serum albumin. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2008, 90, 41-46.	3.8	10
105	Chemiluminescence Associated with Singlet Oxygen Reactions with Amino Acids, Peptides and Proteins. <i>Photochemistry and Photobiology</i> , 2007, 83, 475-480.	2.5	19
106	Photosensitizing Activity of Advanced Glycation Endproducts on Tryptophan, Glucose 6-phosphate Dehydrogenase, Human Serum Albumin and Ascorbic Acid Evaluated at Low Oxygen Pressure. <i>Photochemistry and Photobiology</i> , 2007, 83, 563-569.	2.5	17
107	Biomaterials for Organ and Tissue Repair. <i>Frontiers for Young Minds</i> , 0, 7, .	0.8	1
108	Closing Wounds With Light?. <i>Frontiers for Young Minds</i> , 0, 8, .	0.8	1