

Juan C Cruz

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

1,285
citations

361296

20
h-index

434063

31
g-index

95
all docs

95
docs citations

95
times ranked

1276
citing authors

#	ARTICLE	IF	CITATIONS
1	An imageJ plugin for the high throughput image analysis of in vitro scratch wound healing assays. PLoS ONE, 2020, 15, e0232565.	1.1	232
2	Enzyme-Based Electrochemical Biosensors for Microfluidic Platforms to Detect Pharmaceutical Residues in Wastewater. Biosensors, 2019, 9, 41.	2.3	60
3	Delivery Systems for Nucleic Acids and Proteins: Barriers, Cell Capture Pathways and Nanocarriers. Pharmaceutics, 2021, 13, 428.	2.0	55
4	Conformational changes and catalytic competency of hydrolases adsorbing on fumed silica nanoparticles: I. Tertiary structure. Colloids and Surfaces B: Biointerfaces, 2010, 79, 97-104.	2.5	46
5	Tailoring Iron Oxide Nanoparticles for Efficient Cellular Internalization and Endosomal Escape. Nanomaterials, 2020, 10, 1816.	1.9	38
6	Immobilization of Candida antarctica Lipase B on fumed silica. Process Biochemistry, 2009, 44, 62-69.	1.8	37
7	Formulation and Characterization of Gelatin-Based Hydrogels for the Encapsulation of Kluyveromyces lactis Applications in Packed-Bed Reactors and Probiotics Delivery in Humans. Polymers, 2020, 12, 1287.	2.0	34
8	Lysosomal storage diseases: current therapies and future alternatives. Journal of Molecular Medicine, 2020, 98, 931-946.	1.7	34
9	Conformational changes and catalytic competency of hydrolases adsorbing on fumed silica nanoparticles: II. Secondary structure. Colloids and Surfaces B: Biointerfaces, 2010, 81, 1-10.	2.5	33
10	Graphene Oxide-Embedded Extracellular Matrix-Derived Hydrogel as a Multiresponsive Platform for 3D Bioprinting Applications. International Journal of Bioprinting, 2021, 7, 353.	1.7	33
11	PH-Responsive, Cell-Penetrating, Core/Shell Magnetite/Silver Nanoparticles for the Delivery of Plasmids: Preparation, Characterization, and Preliminary In Vitro Evaluation. Pharmaceutics, 2020, 12, 561.	2.0	29
12	Novel BUF2-magnetite nanobioconjugates with cell-penetrating abilities. International Journal of Nanomedicine, 2018, Volume 13, 8087-8094.	3.3	28
13	Magnetite-OmpA Nanobioconjugates as Cell-Penetrating Vehicles with Endosomal Escape Abilities. ACS Biomaterials Science and Engineering, 2020, 6, 415-424.	2.6	28
14	Multifunctional magnetite nanoparticles to enable delivery of siRNA for the potential treatment of Alzheimer's. Drug Delivery, 2020, 27, 864-875.	2.5	28
15	Cell-Penetrating And Antibacterial BUF-II Nanobioconjugates: Enhanced Potency Via Immobilization On Polyetheramine-Modified Magnetite Nanoparticles. International Journal of Nanomedicine, 2019, Volume 14, 8483-8497.	3.3	26
16	Formulation and Characterization of a SIS-Based Photocrosslinkable Bioink. Polymers, 2019, 11, 569.	2.0	24
17	Gelatin-Graphene Oxide Nanocomposite Hydrogels for Kluyveromyces lactis Encapsulation: Potential Applications in Probiotics and Bioreactor Packings. Biomolecules, 2021, 11, 922.	1.8	24
18	Immobilization of Enzymes on Fumed Silica Nanoparticles for Applications in Nonaqueous Media. Methods in Molecular Biology, 2011, 743, 147-160.	0.4	23

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19	Emerging Emulsifiers: Conceptual Basis for the Identification and Rational Design of Peptides with Surface Activity. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4615.	1.8	23
20	Enantioselective transesterification by <i>Candida antarctica</i> Lipase B immobilized on fumed silica. <i>Journal of Biotechnology</i> , 2010, 150, 80-86.	1.9	22
21	Fabrication and Characterization of a Low-Cost Microfluidic System for the Manufacture of Alginate-Laccase Microcapsules. <i>Polymers</i> , 2020, 12, 1158.	2.0	22
22	Design, Screening, and Testing of Non-Rational Peptide Libraries with Antimicrobial Activity: In Silico and Experimental Approaches. <i>Antibiotics</i> , 2020, 9, 854.	1.5	20
23	On-the-resin N-terminal modification of long synthetic peptides. <i>Analytical Biochemistry</i> , 2012, 424, 137-139.	1.1	18
24	Preparation and Characterization of an Injectable and Photo-Responsive Chitosan Methacrylate/Graphene Oxide Hydrogel: Potential Applications in Bone Tissue Adhesion and Repair. <i>Polymers</i> , 2022, 14, 126.	2.0	17
25	Antioxidant and Neuroprotective Properties of Non-Centrifugal Cane Sugar and Other Sugarcane Derivatives in an In Vitro Induced Parkinson's Model. <i>Antioxidants</i> , 2021, 10, 1040.	2.2	16
26	Patchy Core/Shell, Magnetite/Silver Nanoparticles via Green and Facile Synthesis: Routes to Assure Biocompatibility. <i>Nanomaterials</i> , 2020, 10, 1857.	1.9	14
27	Synthesis of Nanoscale Liposomes via Low-Cost Microfluidic Systems. <i>Micromachines</i> , 2020, 11, 1050.	1.4	14
28	Demulsification of Colombian Heavy Crude Oil (W/O) Emulsions: Insights into the Instability Mechanisms, Chemical Structure, and Performance of Different Commercial Demulsifiers. <i>Energy & Fuels</i> , 2020, 34, 5665-5678.	2.5	14
29	Failure Analysis of TEVC's I: Overcoming the Initial Stages of Blood Material Interaction and Stabilization of the Immune Response. <i>Cells</i> , 2021, 10, 3140.	1.8	13
30	Novel antibacterial hydrogels based on gelatin/polyvinyl-alcohol and graphene oxide/silver nanoconjugates: formulation, characterization, and preliminary biocompatibility evaluation. <i>Heliyon</i> , 2022, 8, e09145.	1.4	13
31	Novel Developments on Stimuli-Responsive Probiotic Encapsulates: From Smart Hydrogels to Nanostructured Platforms. <i>Fermentation</i> , 2022, 8, 117.	1.4	13
32	Novel Bionanocompounds: Outer Membrane Protein A and Laccase Co-Immobilized on Magnetite Nanoparticles for Produced Water Treatment. <i>Nanomaterials</i> , 2020, 10, 2278.	1.9	12
33	Congo Red Decolorization Using Textile Filters and Laccase-Based Nanocomposites in Continuous Flow Bioreactors. <i>Nanomaterials</i> , 2020, 10, 1227.	1.9	12
34	Hydrolases on silica surfaces: Coverage-activity molecular property relationships revealed. <i>Process Biochemistry</i> , 2014, 49, 830-839.	1.8	10
35	Modernizing the chemical engineering curriculum via a student-centered framework that promotes technical, professional, and technology expertise skills: The case of unit operations. <i>Education for Chemical Engineers</i> , 2021, 35, 8-21.	2.8	10
36	Rational Design of Photo-Electrochemical Hybrid Devices Based on Graphene and <i>Chlamydomonas reinhardtii</i> Light-Harvesting Proteins. <i>Scientific Reports</i> , 2020, 10, 3376.	1.6	9

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37	In-vitro evaluation of copper nanoparticles as a potential control agent against the fungal symbionts of the invasive ambrosia beetle <i>Euwallacea fornicatus</i> . <i>Crop Protection</i> , 2021, 143, 105564.	1.0	9
38	Bioactive Poly(lactic acid)â€‘Cocoa Bean Shell Composites for Biomaterial Formulation: Preparation and Preliminary In Vitro Characterization. <i>Polymers</i> , 2021, 13, 3707.	2.0	9
39	Highly Efficient Synthesis of Type B Gelatin and Low Molecular Weight Chitosan Nanoparticles: Potential Applications as Bioactive Molecule Carriers and Cell-Penetrating Agents. <i>Polymers</i> , 2021, 13, 4078.	2.0	9
40	Microfluidic Synthesis and Purification of Magnetoliposomes for Potential Applications in the Gastrointestinal Delivery of Difficult-to-Transport Drugs. <i>Pharmaceutics</i> , 2022, 14, 315.	2.0	9
41	Treatment of Wastewater, Phenols and Dyes Using Novel Magnetic Torus Microreactors and Laccase Immobilized on Magnetite Nanoparticles. <i>Nanomaterials</i> , 2022, 12, 1688.	1.9	8
42	Rational Discovery of Antimicrobial Peptides by Means of Artificial Intelligence. <i>Membranes</i> , 2022, 12, 708.	1.4	8
43	Magnetite Nanoparticles Functionalized with RNases against Intracellular Infection of <i>Pseudomonas aeruginosa</i> . <i>Pharmaceutics</i> , 2020, 12, 631.	2.0	6
44	PharmaNet: Pharmaceutical discovery with deep recurrent neural networks. <i>PLoS ONE</i> , 2021, 16, e0241728.	1.1	6
45	Microfluidics for Multiphase Mixing and Liposomal Encapsulation of Nanobioconjugates: Passive vs. Acoustic Systems. <i>Fluids</i> , 2021, 6, 309.	0.8	6
46	Recent Advances on Stimuli-Responsive Hydrogels Based on Tissue-Derived ECMs and Their Components: Towards Improving Functionality for Tissue Engineering and Controlled Drug Delivery. <i>Polymers</i> , 2021, 13, 3263.	2.0	6
47	Comparison of Acetaminophen Degradation by Laccases Immobilized by Two Different Methods via a Continuous Flow Microreactor Process Scheme. <i>Membranes</i> , 2022, 12, 298.	1.4	6
48	Tridimensional alginate disks of tunable topologies for mammalian cell encapsulation. <i>Analytical Biochemistry</i> , 2019, 574, 31-33.	1.1	5
49	Novel external-loop-airlift milliliter scale bioreactors for cell growth studies: Low cost design, CFD analysis and experimental characterization. <i>Journal of Biotechnology</i> , 2020, 324, 71-82.	1.9	5
50	Functionalization and Evaluation of Inorganic Adsorbents for the Removal of Cadmium in Wastewater. <i>Molecules</i> , 2021, 26, 4150.	1.7	5
51	Detection of Pathogens Using Microfluidics and Biosensors. , 0, , .		4
52	Enhanced Catalytic Dye Decolorization by Microencapsulation of Laccase from <i>P. Sanguineus</i> CS43 in Natural and Synthetic Polymers. <i>Polymers</i> , 2020, 12, 1353.	2.0	4
53	Failure Analysis of TEVCâ€™s II: Late Failure and Entering the Regeneration Pathway. <i>Cells</i> , 2022, 11, 939.	1.8	4
54	Predicting targetâ€™ligand interactions with graph convolutional networks for interpretable pharmaceutical discovery. <i>Scientific Reports</i> , 2022, 12, 8434.	1.6	4

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55	Blood-Vessel-Inspired Hierarchical Trilayer Scaffolds: PCL/Gelatin-Driven Protein Adsorption and Cellular Interaction. <i>Polymers</i> , 2022, 14, 2135.	2.0	4
56	3D Alginate Hydrogels with Controlled Mechanical Properties for Mammalian Cell Encapsulation. , 2018, , .		3
57	Evaluation of Microscopic Structure~Function Relationships of PEGylated Small Intestinal Submucosa Vascular Grafts for Arteriovenous Connection. <i>ACS Applied Bio Materials</i> , 2019, 2, 3706-3721.	2.3	3
58	Micromixers for Wastewater Treatment and Their Life Cycle Assessment (LCA). , 0, , .		3
59	Understanding the Potential of Genome Editing in Parkinson~TM's Disease. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9241.	1.8	3
60	Synthesis and Characterization of a Fullerenol Derivative for Potential Biological Applications. <i>Materials Proceedings</i> , 2020, 4, .	0.2	3
61	CFD Analysis and Life Cycle Assessment of Continuous Synthesis of Magnetite Nanoparticles Using 2D and 3D Micromixers. <i>Micromachines</i> , 2022, 13, 970.	1.4	3
62	Translocating Peptides of Biomedical Interest Obtained from the Spike (S) Glycoprotein of the SARS-CoV-2. <i>Membranes</i> , 2022, 12, 600.	1.4	3
63	Insights into the behavior of six rationally designed peptides based on Escherichia coli~TM's OmpA at the water-dodecane interface. <i>PLoS ONE</i> , 2019, 14, e0223670.	1.1	2
64	Design and Characterization of a Fluidic Device for the Evaluation of SIS-Based Vascular Grafts. <i>Processes</i> , 2020, 8, 1198.	1.3	2
65	CFD Simulation and Validation of Flow in Small Arteries to Enable Further Drug Delivery Studies. <i>Revista Facultad De IngenierAa</i> , 0, , .	0.5	2
66	Synthesis, Characterization, and Functionalization of Chitosan and Gelatin Type B Nanoparticles to Develop Novel Highly Biocompatible Cell-Penetrating Agents. <i>Materials Proceedings</i> , 2021, 4, 30.	0.2	2
67	Evaluating the Impact of Thermal Processing on the Anti-Inflammatory Activity of Non-Centrifugal Cane Sugar: Implications on Cytokine Secretion and TLR4 Signaling. <i>Frontiers in Pharmacology</i> , 0, 13, .	1.6	2
68	Decreased Platelet Deposition in SIS-Based Vascular Grafts via Covalent Conjugation of RAFT Polymers. , 2018, , .		1
69	Modeling and Simulation of Multiphase Flow for Nanoparticle Translocation. <i>Materials Proceedings</i> , 2020, 4, .	0.2	1
70	Chitosan methacrylate-based bioadhesive: towards a photoresponsive and extrudable material for bone fracture repair. , 2021, , .		1
71	Design and Manufacture of a Low-Cost Microfluidic System for the Synthesis of Giant Liposomes for the Encapsulation of Yeast Homologues: Applications in the Screening of Membrane-Active Peptide Libraries. <i>Micromachines</i> , 2021, 12, 1377.	1.4	1
72	In silico study of spheroids fusion through magnetic field gradients. , 2021, , .		1

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73	Potential Bone Fillers Based on Composites of Cocoa Bean Shells and Poly(Lactic Acid): Compression Molding Manufacturing. , 2021, , .		1
74	Computational Characterization of Mechanical, Hemodynamic, and Surface Interaction Conditions: Role of Protein Adsorption on the Regenerative Response of TEVGs. International Journal of Molecular Sciences, 2022, 23, 1130.	1.8	1
75	Studies of Membrane-Active Peptides Using Neutron Diffraction. Biophysical Journal, 2011, 100, 334a.	0.2	0
76	Multiphysics modeling of graphene-based biohybrid photoelectrochemical cells: An avenue to highly efficient and sustainable ultra-thin batteries. , 2013, , .		0
77	Molecular dynamics simulations of Alzheimer's BACE1 and BACE2 transmembrane domains in neurons: Impact of cholesterol. Revista Facultad De IngenierAa, 0, , NP.	0.5	0
78	Mechanical characterization of novel vascular grafts: approaching to the native vessel behavior. , 2021, , .		0
79	Novel anticancer agents based on co-immobilization of Temozolomide and Hydroxyurea on Magnetite-Buforin II nanobioconjugates: efficacy study in 3D Glioblastoma spheroids. , 2021, , .		0
80	In Silico Analysis of Microfluidic Systems for the Purification of Magnetoliposomes. Materials Proceedings, 2021, 4, 90.	0.2	0
81	A Chemo-Mechanical Model of the Spreading of Endothelial Cells on the Lumen of Functionalized TEVGs. Materials Proceedings, 2020, 4, .	0.2	0
82	Synthesis and Characterisation of Dimeric Bolaamphiphilic Dehydrodipeptides for Biomedical Applications. Materials Proceedings, 2020, 4, .	0.2	0
83	Synthesis, Characterization, and Functionalization of Graphene Oxide-Based Nanoplatfoms for Gene Delivery. Materials Proceedings, 2021, 4, 23.	0.2	0
84	Design and Simulation of a Microfluidic Platform for the Encapsulation and Separation of Yeasts Expressing Translocating Peptides. Materials Proceedings, 2020, 4, .	0.2	0
85	In Silico Analysis of Microfluidic Systems for the Purification of Magnetoliposomes. Materials Proceedings, 2021, 4, 73.	0.2	0
86	Delivery of Linear Gene-Editing Systems by Cell-Penetrating Magnetite Vehicles: Synthesis, Characterization and Preliminary In Vitro Testing. Materials Proceedings, 2020, 4, .	0.2	0
87	Evaluation and Characterization of Antioxidant and Immunomodulatory Activities of Colombian Sugar Cane-derived Extracts. , 2021, , .		0
88	Evaluation of polymeric biomaterial as an option for tissue replacement in plantar calcaneonavicular ligament injuries. , 2021, , .		0
89	Pinched flow fractionation for size-based separation of polydisperse polymeric microparticles via a low-cost microfluidic device. , 2021, , .		0
90	Bio-molecular interactions: blood components, cells and biomaterials in the regeneration of acellular vascular grafts. , 2021, , .		0