

Silvia Irusta

List of Publications by Year in descending order

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112
papers

4,448
citations

109137

35
h-index

114278

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113
all docs

113
docs citations

113
times ranked

7380
citing authors

#	ARTICLE	IF	CITATIONS
1	A Magnetically Triggered Composite Membrane for On-Demand Drug Delivery. <i>Nano Letters</i> , 2009, 9, 3651-3657.	4.5	335
2	Development of Noncytotoxic Chitosan-Gold Nanocomposites as Efficient Antibacterial Materials. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 1087-1099.	4.0	258
3	Magnetically Triggered Nanocomposite Membranes: A Versatile Platform for Triggered Drug Release. <i>Nano Letters</i> , 2011, 11, 1395-1400.	4.5	241
4	Mass transfer and metabolic reactions in hepatocyte spheroids cultured in rotating wall gas-permeable membrane system. <i>Biomaterials</i> , 2007, 28, 5487-5497.	5.7	222
5	Smart Dressings Based on Nanostructured Fibers Containing Natural Origin Antimicrobial, Anti-Inflammatory, and Regenerative Compounds. <i>Materials</i> , 2015, 8, 5154-5193.	1.3	160
6	Gold-Triggered Uncaging Chemistry in Living Systems. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 12548-12552.	7.2	128
7	Preparation and characterization of chitosan-silver nanocomposite films and their antibacterial activity against <i>Staphylococcus aureus</i> . <i>Nanotechnology</i> , 2013, 24, 015101.	1.3	124
8	The effect of pretreatment of Vulcan XC-72R carbon on morphology and electrochemical oxygen reduction kinetics of supported Pd nano-particle in acidic electrolyte. <i>Journal of Electroanalytical Chemistry</i> , 2010, 647, 211-221.	1.9	118
9	Human hepatocyte functions in a crossed hollow fiber membrane bioreactor. <i>Biomaterials</i> , 2009, 30, 2531-2543.	5.7	115
10	Evaluation of the Antimicrobial Activity and Cytotoxicity of Different Components of Natural Origin Present in Essential Oils. <i>Molecules</i> , 2018, 23, 1399.	1.7	101
11	Biotransformation and liver-specific functions of human hepatocytes in culture on RGD-immobilized plasma-processed membranes. <i>Biomaterials</i> , 2005, 26, 4432-4441.	5.7	89
12	Development of noncytotoxic silver-chitosan nanocomposites for efficient control of biofilm forming microbes. <i>RSC Advances</i> , 2017, 7, 52398-52413.	1.7	87
13	Scaled-up production of plasmonic nanoparticles using microfluidics: from metal precursors to functionalized and sterilized nanoparticles. <i>Lab on A Chip</i> , 2014, 14, 325-332.	3.1	83
14	Influence of membrane surface properties on the growth of neuronal cells isolated from hippocampus. <i>Journal of Membrane Science</i> , 2008, 325, 139-149.	4.1	81
15	Preparation and characterization of electrospun alginate nanofibers loaded with ciprofloxacin hydrochloride. <i>European Polymer Journal</i> , 2017, 96, 350-360.	2.6	79
16	Comparative study of the synthesis of silica nanoparticles in micromixer-microreactor and batch reactor systems. <i>Chemical Engineering Journal</i> , 2011, 171, 674-683.	6.6	74
17	Long-term maintenance of human hepatocytes in oxygen-permeable membrane bioreactor. <i>Biomaterials</i> , 2006, 27, 4794-4803.	5.7	71
18	Electrospun anti-inflammatory patch loaded with essential oils for wound healing. <i>International Journal of Pharmaceutics</i> , 2020, 577, 119067.	2.6	56

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19	Neuroprotective effect of human mesenchymal stem cells in a compartmentalized neuronal membrane system. <i>Acta Biomaterialia</i> , 2015, 24, 297-308.	4.1	54
20	Osteogenic and osteoclastogenic differentiation of co-cultured cells in polylactic acid- α -nanohydroxyapatite fiber scaffolds. <i>Journal of Biotechnology</i> , 2015, 204, 53-62.	1.9	54
21	Polymeric electrospun scaffolds for bone morphogenetic protein 2 delivery in bone tissue engineering. <i>Journal of Colloid and Interface Science</i> , 2018, 531, 126-137.	5.0	54
22	Long-Lasting Antifouling Coating from Multi-Armed Polymer. <i>Langmuir</i> , 2013, 29, 10087-10094.	1.6	53
23	Efficient tuning of the Pt nano-particle mono-dispersion on Vulcan XC-72R by selective pre-treatment and electrochemical evaluation of hydrogen oxidation and oxygen reduction reactions. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 5453-5465.	3.8	51
24	Au-PLA nanocomposites for photothermally controlled drug delivery. <i>Journal of Materials Chemistry B</i> , 2014, 2, 409-417.	2.9	48
25	Enhanced purification of carbon nanotubes by microwave and chlorine cleaning procedures. <i>RSC Advances</i> , 2016, 6, 11895-11902.	1.7	48
26	Preparation and Characterization of Titanosilicate Ag-ETS-10 for Propylene and Propane Adsorption. <i>Journal of Physical Chemistry C</i> , 2007, 111, 4702-4709.	1.5	47
27	Supercritical solvothermal synthesis under reducing conditions to increase stability and durability of Mo/ZSM-5 catalysts in methane dehydroaromatization. <i>Applied Catalysis B: Environmental</i> , 2020, 263, 118360.	10.8	47
28	Hydrothermal assisted morphology designed MoS ₂ material as alternative cathode catalyst for PEM electrolyser application. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 13331-13340.	3.8	45
29	Synthesis of a Novel Electrospun Polycaprolactone Scaffold Functionalized with Ibuprofen for Periodontal Regeneration: An In Vitro and In Vivo Study. <i>Materials</i> , 2018, 11, 580.	1.3	45
30	Microfluidic Synthesis and Biological Evaluation of Photothermal Biodegradable Copper Sulfide Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 21545-21554.	4.0	44
31	Electrospun asymmetric membranes for wound dressing applications. <i>Materials Science and Engineering C</i> , 2019, 103, 109822.	3.8	41
32	Novel membranes and surface modification able to activate specific cellular responses. <i>New Biotechnology</i> , 2007, 24, 23-26.	2.7	40
33	Effect of isoliquiritigenin on viability and differentiated functions of human hepatocytes maintained on PEEK-WC polyurethane membranes. <i>Biomaterials</i> , 2005, 26, 6625-6634.	5.7	38
34	Human Hepatocyte Morphology and Functions in a Multibore Fiber Bioreactor. <i>Macromolecular Bioscience</i> , 2007, 7, 671-680.	2.1	37
35	Microwave-assisted mild-temperature preparation of neodymium-doped titania for the improved photodegradation of water contaminants. <i>Applied Catalysis A: General</i> , 2012, 441-442, 47-53.	2.2	36
36	Human lymphocyte PEEK-WC hollow fiber membrane bioreactor. <i>Journal of Biotechnology</i> , 2007, 132, 65-74.	1.9	35

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37	Electrospun Au/CeO ₂ nanofibers: A highly accessible low-pressure drop catalyst for preferential CO oxidation. <i>Journal of Catalysis</i> , 2015, 329, 479-489.	3.1	35
38	Laser-treated electrospun fibers loaded with nano-hydroxyapatite for bone tissue engineering. <i>International Journal of Pharmaceutics</i> , 2017, 525, 112-122.	2.6	35
39	The effect of PEGylated hollow gold nanoparticles on stem cell migration: potential application in tissue regeneration. <i>Nanoscale</i> , 2017, 9, 9848-9858.	2.8	35
40	Cleavable and thermo-responsive hybrid nanoparticles for on-demand drug delivery. <i>Journal of Colloid and Interface Science</i> , 2019, 533, 171-181.	5.0	35
41	Separation of propylene/propane mixtures by titanosilicate ETS-10 membranes prepared in one-step seeded hydrothermal synthesis. <i>Journal of Membrane Science</i> , 2008, 311, 326-335.	4.1	34
42	Production, characterization and testing of antibacterial PVA membranes loaded with HA-Ag ₃ PO ₄ nanoparticles, produced by SC-CO ₂ phase inversion. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 98-108.	1.6	33
43	Human liver microtissue spheroids in hollow fiber membrane bioreactor. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 160, 272-280.	2.5	31
44	Composite scaffold obtained by electro-hydrodynamic technique for infection prevention and treatment in bone repair. <i>International Journal of Pharmaceutics</i> , 2019, 557, 162-169.	2.6	30
45	Antibacterial Effect of Thymol Loaded SBA-15 Nanorods Incorporated in PCL Electrospun Fibers. <i>Nanomaterials</i> , 2020, 10, 616.	1.9	29
46	Membrane Bioreactor for Cell Tissues and Organoids. <i>Artificial Organs</i> , 2006, 30, 793-802.	1.0	28
47	Antimicrobial Electrospun Polycaprolactone-Based Wound Dressings: An <i>In Vitro</i> Study About the Importance of the Direct Contact to Elicit Bactericidal Activity. <i>Advances in Wound Care</i> , 2019, 8, 438-451.	2.6	28
48	Xylene isomerization in a membrane reactor. <i>Chemical Engineering Journal</i> , 2006, 122, 167-174.	6.6	27
49	Fetuin-A gene expression, synthesis and release in primary human hepatocytes cultured in a galactosylated membrane bioreactor. <i>Biomaterials</i> , 2007, 28, 4836-4844.	5.7	27
50	Preparation and characterization of two-layered mordenite-ZSM-5 bi-functional membranes. <i>Microporous and Mesoporous Materials</i> , 2006, 93, 318-324.	2.2	26
51	Nonreducible, Basic La ₂ O ₃ to Reducible, Acidic La ₂ O ₃ -Sb ₂ O ₃ with Significant Oxygen Storage Capacity, Lower Band Gap, and Effect on the Catalytic Activity. <i>Journal of Physical Chemistry C</i> , 2017, 121, 481-489.	1.5	26
52	Targeted Release of Probiotics from Enteric Microparticulated Formulations. <i>Polymers</i> , 2019, 11, 1668.	2.0	26
53	Combustion of Volatile Organic Compounds at Trace Concentration Levels in Zeolite-Coated Microreactors. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 6941-6947.	1.8	24
54	Human hepatocyte functions in a galactosylated membrane bioreactor. <i>Journal of Membrane Science</i> , 2007, 302, 27-35.	4.1	23

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55	Flat and tubular membrane systems for the reconstruction of hippocampal neuronal network. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2012, 6, 299-313.	1.3	23
56	Drug-eluting wound dressings having sustained release of antimicrobial compounds. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2020, 152, 327-339.	2.0	23
57	Ultra-Small Silver Nanoparticles Immobilized in Mesoporous SBA-15. Microwave-Assisted Synthesis and Catalytic Activity in the 4-Nitrophenol Reduction. <i>Catalysis Today</i> , 2021, 362, 81-89.	2.2	23
58	Continuous Microwave-Assisted Synthesis of Silver Nanoclusters Confined in Mesoporous SBA-15: Application in Alkyne Cyclizations. <i>Chemistry of Materials</i> , 2020, 32, 2874-2883.	3.2	22
59	In-situ preparation of ultra-small Pt nanoparticles within rod-shaped mesoporous silica particles: 3-D tomography and catalytic oxidation of n-hexane. <i>Catalysis Communications</i> , 2017, 100, 93-97.	1.6	20
60	Effect of Nitinol surface treatments on its physicochemical properties. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2009, 91B, 337-347.	1.6	19
61	Kinetics of oxygen uptake by cells potentially used in a tissue engineered trachea. <i>Biomaterials</i> , 2014, 35, 6829-6837.	5.7	19
62	Enhanced oxygen evolution activity of $\text{Co}_3\text{xNi}_x\text{O}_4$ compared to Co_3O_4 by low Ni doping. <i>Journal of Electroanalytical Chemistry</i> , 2018, 823, 482-491.	1.9	19
63	Electrochemical insights into layered La_2CuO_4 perovskite: Active ionic copper for selective CO_2 electroreduction at low overpotential. <i>Electrochimica Acta</i> , 2019, 326, 134952.	2.6	19
64	Pharmacokinetic control on the release of antimicrobial drugs from pH-responsive electrospun wound dressings. <i>International Journal of Pharmaceutics</i> , 2022, 624, 122003.	2.6	19
65	Efficiency of Antimicrobial Electrospun Thymol-Loaded Polycaprolactone Mats In Vivo. <i>ACS Applied Bio Materials</i> , 2020, 3, 3430-3439.	2.3	18
66	Pt-CoOx nanoparticles supported on ETS-10 for preferential oxidation of CO reaction. <i>Applied Catalysis A: General</i> , 2016, 528, 86-92.	2.2	17
67	Membrane bioreactor for investigation of neurodegeneration. <i>Materials Science and Engineering C</i> , 2019, 103, 109793.	3.8	17
68	Electrospinning synthesis and characterization of nanofibers of Co, Ce and mixed Co-Ce oxides. Their application to oxidation reactions of diesel soot and CO. <i>Catalysis Today</i> , 2022, 383, 266-276.	2.2	17
69	Structure and Properties of Reactively Extruded Opaque Post-Consumer Recycled PET. <i>Polymers</i> , 2021, 13, 3531.	2.0	17
70	Unintended emission of nanoparticle aerosols during common laboratory handling operations. <i>Journal of Hazardous Materials</i> , 2014, 279, 75-84.	6.5	15
71	Polycaprolactone/mesoporous silica MCM-41 composites prepared by in situ polymerization. <i>Particuology</i> , 2017, 30, 135-143.	2.0	15
72	Pd and Pd,In nanoparticles supported on polymer fibres as catalysts for the nitrate and nitrite reduction in aqueous media. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 103651.	3.3	15

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73	Effect of inorganic 1D nanoparticles on electrooptic properties of 5CB liquid crystal. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 2328-2334.	0.8	14
74	Nanocoral CuCo ₂ S ₄ thiospinels: Oxygen evolution reaction via redox interaction of metal ions. <i>Electrochimica Acta</i> , 2021, 370, 137701.	2.6	13
75	Enhancement of the fatigue life of recycled PP by incorporation of recycled opaque PET collected from household milk bottle wastes. <i>Waste Management</i> , 2021, 125, 49-57.	3.7	13
76	Identification of TiO ₂ nanoparticles using La and Ce as labels: application to the evaluation of surface contamination during the handling of nanosized matter. <i>Environmental Science: Nano</i> , 2014, 1, 496-503.	2.2	12
77	Luminescent mesoporous nanorods as photocatalytic enzyme-like peroxidase surrogates. <i>Chemical Science</i> , 2018, 9, 7766-7778.	3.7	12
78	Antimicrobial Wound Dressings against Fluorescent and Methicillin-Sensitive Intracellular Pathogenic Bacteria. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 51302-51313.	4.0	12
79	Platinum substituted Cobalt(II, III) Oxide: Interplay of tetrahedral Co(II) sites towards electrochemical oxygen evolution activity. <i>Electrochimica Acta</i> , 2021, 365, 137234.	2.6	12
80	Chitosan-based coatings in the prevention of intravascular catheter-associated infections. <i>Journal of Biomaterials Applications</i> , 2018, 32, 725-737.	1.2	11
81	Enzyme structure and function protection from gastrointestinal degradation using enteric coatings. <i>International Journal of Biological Macromolecules</i> , 2018, 119, 413-422.	3.6	11
82	Physicochemical and optical properties of one-pot combustion synthesized Pr doped La ₂ O ₃ /La(OH) ₃ . <i>Journal of Luminescence</i> , 2020, 219, 116893.	1.5	11
83	Electroreduction of Carbon Dioxide into Selective Hydrocarbons at Low Overpotential Using Isomorphous Atomic Substitution in Copper Oxide. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 179-189.	3.2	11
84	Controlling Particle Size and Release Kinetics in the Sustained Delivery of Oral Antibiotics Using pH-Independent Mucoadhesive Polymers. <i>Molecular Pharmaceutics</i> , 2020, 17, 3314-3327.	2.3	11
85	Nanogels with High Loading of Anesthetic Nanocrystals for Extended Duration of Sciatic Nerve Block. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17220-17235.	4.0	11
86	Intense generation of respirable metal nanoparticles from a low-power soldering unit. <i>Journal of Hazardous Materials</i> , 2013, 256-257, 84-89.	6.5	10
87	The Effect of Titanium Dioxide Surface Modification on the Dispersion, Morphology, and Mechanical Properties of Recycled PP/PET/TiO ₂ PBANOs. <i>Polymers</i> , 2019, 11, 1692.	2.0	10
88	Tailoring the rheology and electrical properties of polyamide 66 nanocomposites with hybrid filler approach: graphene and carbon nanotubes. <i>Polymer International</i> , 2021, 70, 1329-1343.	1.6	10
89	Fluidized Bed Generation of Stable Silica Nanoparticle Aerosols. <i>Aerosol Science and Technology</i> , 2013, 47, 867-874.	1.5	9
90	Double porous poly(ϵ -caprolactone)/chitosan membrane scaffolds as niches for human mesenchymal stem cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 184, 110493.	2.5	9

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91	Cobalt deposited on micro and nanometric structures of ceria and zirconia applied in diesel soot combustion. <i>Molecular Catalysis</i> , 2020, 481, 100636.	1.0	9
92	Hollow Fiber and Nanofiber Membranes in Bioartificial Liver and Neuronal Tissue Engineering. <i>Cells Tissues Organs</i> , 2021, , 1-30.	1.3	9
93	Selective point-of-care detection of pathogenic bacteria using sialic acid functionalized gold nanoparticles. <i>Talanta</i> , 2021, 234, 122644.	2.9	9
94	Gold-Platinum Nanoparticles with Core-Shell Configuration as Efficient Oxidase-like Nanosensors for Glutathione Detection. <i>Nanomaterials</i> , 2022, 12, 755.	1.9	9
95	Submicronic Filtering Media Based on Electrospun Recycled PET Nanofibers: Development, Characterization, and Method to Manufacture Surgical Masks. <i>Nanomaterials</i> , 2022, 12, 925.	1.9	9
96	High-speed water sterilization using silver-containing cellulose membranes. <i>Nanotechnology</i> , 2014, 25, 305101.	1.3	8
97	Dermal-epidermal membrane systems by using human keratinocytes and mesenchymal stem cells isolated from dermis. <i>Materials Science and Engineering C</i> , 2017, 71, 943-953.	3.8	8
98	Nanoengineering Palladium Plasmonic Nanosheets Inside Polymer Nanospheres for Photothermal Therapy and Targeted Drug Delivery. <i>Advanced Functional Materials</i> , 2022, 32, 2106932.	7.8	8
99	Mechanochemical characterisation of silica-based coatings on Nitinol substrates. <i>Microporous and Mesoporous Materials</i> , 2007, 98, 292-302.	2.2	7
100	Potential Implantable Nanofibrous Biomaterials Combined with Stem Cells for Subchondral Bone Regeneration. <i>Materials</i> , 2020, 13, 3087.	1.3	7
101	Generation of TiO ₂ Aerosols from Liquid Suspensions: Influence of Colloid Characteristics. <i>Aerosol Science and Technology</i> , 2013, 47, 1383-1392.	1.5	6
102	Influence of La incorporation on the catalytic activity of Ru/ETS-10 catalysts for hydrogen production. <i>Applied Catalysis A: General</i> , 2015, 504, 391-398.	2.2	6
103	Polymeric membranes modulate human keratinocyte differentiation in specific epidermal layers. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 146, 352-362.	2.5	6
104	Microflow Nanoprecipitation of Positively Charged Gastroresistant Polymer Nanoparticles of Eudragit® RS100: A Study of Fluid Dynamics and Chemical Parameters. <i>Materials</i> , 2020, 13, 2925.	1.3	5
105	Preparation of Cu cluster catalysts by simultaneous cooling and microwave heating: application in radical cascade annulation. <i>Nanoscale Advances</i> , 2021, 3, 1087-1095.	2.2	4
106	Multifunctional membranes for lipidic nanovesicle capture. <i>Separation and Purification Technology</i> , 2022, 298, 121561.	3.9	4
107	Human galactosylated membrane bioreactor for the long-term maintenance of liver specific functions. <i>Desalination</i> , 2006, 199, 147-149.	4.0	3
108	Light activated pulsatile drug delivery for prolonged peripheral nerve block. <i>Biomaterials</i> , 2022, 283, 121453.	5.7	3

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109	Biocompatibility of Modified Polyetheretherketone (Peek-Wc) Membranes: Human Plasma Adsorption. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	2
110	Manifestation of Concealed Defects in MoS ₂ Nanospheres for Efficient and Durable Electrocatalytic Hydrogen Evolution Reaction. ChemistrySelect, 2017, 2, 4667-4672.	0.7	2
111	Novel bioactive polymeric membranes to elicit specific human hepatocyte responses. Desalination, 2006, 199, 261-262.	4.0	1
112	Effect of Bi ³⁺ Ion Concentration on Physicochemical, Optical and Catalytic Properties of One-Step Combustion Synthesized Nanocrystalline Bi-Doped La ₂ O ₃ . ChemistrySelect, 2020, 5, 7548-7559.	0.7	1