Silvia Irusta

List of Publications by Year in descending order

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112 papers	4,448 citations	109321 35 h-index	114465 63 g-index
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. Nano Letters, 2009, 9, 3651-3657.	9.1	335
2	Development of Noncytotoxic Chitosanâ€“Gold Nanocomposites as Efficient Antibacterial Materials. ACS Applied Materials & Interfaces, 2015, 7, 1087-1099.	8.0	258
3	Magnetically Triggered Nanocomposite Membranes: A Versatile Platform for Triggered Drug Release. Nano Letters, 2011, 11, 1395-1400.	9.1	241
4	Mass transfer and metabolic reactions in hepatocyte spheroids cultured in rotating wall gas-permeable membrane system. Biomaterials, 2007, 28, 5487-5497.	11.4	222
5	Smart Dressings Based on Nanostructured Fibers Containing Natural Origin Antimicrobial, Anti-Inflammatory, and Regenerative Compounds. Materials, 2015, 8, 5154-5193.	2.9	160
6	Goldâ€Triggered Uncaging Chemistry in Living Systems. Angewandte Chemie - International Edition, 2017, 56, 12548-12552.	13.8	128
7	Preparation and characterization of chitosanâ€“silver nanocomposite films and their antibacterial activity againstStaphylococcus aureus. Nanotechnology, 2013, 24, 015101.	2.6	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. Journal of Electroanalytical Chemistry, 2010, 647, 211-221.	3.8	118
9	Human hepatocyte functions in a crossed hollow fiber membrane bioreactor. Biomaterials, 2009, 30, 2531-2543.	11.4	115
10	Evaluation of the Antimicrobial Activity and Cytotoxicity of Different Components of Natural Origin Present in Essential Oils. Molecules, 2018, 23, 1399.	3.8	101
11	Biotransformation and liver-specific functions of human hepatocytes in culture on RGD-immobilized plasma-processed membranes. Biomaterials, 2005, 26, 4432-4441.	11.4	89
12	Development of noncytotoxic silverâ€“chitosan nanocomposites for efficient control of biofilm forming microbes. RSC Advances, 2017, 7, 52398-52413.	3.6	87
13	Scaled-up production of plasmonic nanoparticles using microfluidics: from metal precursors to functionalized and sterilized nanoparticles. Lab on A Chip, 2014, 14, 325-332.	6.0	83
14	Influence of membrane surface properties on the growth of neuronal cells isolated from hippocampus. Journal of Membrane Science, 2008, 325, 139-149.	8.2	81
15	Preparation and characterization of electrospun alginate nanofibers loaded with ciprofloxacin hydrochloride. European Polymer Journal, 2017, 96, 350-360.	5.4	79
16	Comparative study of the synthesis of silica nanoparticles in micromixerâ€“microreactor and batch reactor systems. Chemical Engineering Journal, 2011, 171, 674-683.	12.7	74
17	Long-term maintenance of human hepatocytes in oxygen-permeable membrane bioreactor. Biomaterials, 2006, 27, 4794-4803.	11.4	71
18	Electrospun anti-inflammatory patch loaded with essential oils for wound healing. International Journal of Pharmaceutics, 2020, 577, 119067.	5.2	56

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19	Neuroprotective effect of human mesenchymal stem cells in a compartmentalized neuronal membrane system. Acta Biomaterialia, 2015, 24, 297-308.	8.3	54
20	Osteogenic and osteoclastogenic differentiation of co-cultured cells in polylactic acidâ€“nanohydroxyapatite fiber scaffolds. Journal of Biotechnology, 2015, 204, 53-62.	3.8	54
21	Polymeric electrospun scaffolds for bone morphogenetic protein 2 delivery in bone tissue engineering. Journal of Colloid and Interface Science, 2018, 531, 126-137.	9.4	54
22	Long-Lasting Antifouling Coating from Multi-Armed Polymer. Langmuir, 2013, 29, 10087-10094.	3.5	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. International Journal of Hydrogen Energy, 2011, 36, 5453-5465.	7.1	51
24	Auâ€“PLA nanocomposites for photothermally controlled drug delivery. Journal of Materials Chemistry B, 2014, 2, 409-417.	5.8	48
25	Enhanced purification of carbon nanotubes by microwave and chlorine cleaning procedures. RSC Advances, 2016, 6, 11895-11902.	3.6	48
26	Preparation and Characterization of Titanosilicate Ag-ETS-10 for Propylene and Propane Adsorption. Journal of Physical Chemistry C, 2007, 111, 4702-4709.	3.1	47
27	Supercritical solvothermal synthesis under reducing conditions to increase stability and durability of Mo/ZSM-5 catalysts in methane dehydroaromatization. Applied Catalysis B: Environmental, 2020, 263, 118360.	20.2	47
28	Hydrothermal assisted morphology designed MoS 2 material as alternative cathode catalyst for PEM electrolyser application. International Journal of Hydrogen Energy, 2016, 41, 13331-13340.	7.1	45
29	Synthesis of a Novel Electrospun Polycaprolactone Scaffold Functionalized with Ibuprofen for Periodontal Regeneration: An In Vitro andIn Vivo Study. Materials, 2018, 11, 580.	2.9	45
30	Microfluidic Synthesis and Biological Evaluation of Photothermal Biodegradable Copper Sulfide Nanoparticles. ACS Applied Materials & Interfaces, 2016, 8, 21545-21554.	8.0	44
31	Electrospun asymmetric membranes for wound dressing applications. Materials Science and Engineering C, 2019, 103, 109822.	7.3	41
32	Novel membranes and surface modification able to activate specific cellular responses. New Biotechnology, 2007, 24, 23-26.	2.7	40
33	Effect of isoliquiritigenin on viability and differentiated functions of human hepatocytes maintained on PEEK-WCâ€“polyurethane membranes. Biomaterials, 2005, 26, 6625-6634.	11.4	38
34	Human Hepatocyte Morphology and Functions in a Multibore Fiber Bioreactor. Macromolecular Bioscience, 2007, 7, 671-680.	4.1	37
35	Microwave-assisted mild-temperature preparation of neodymium-doped titania for the improved photodegradation of water contaminants. Applied Catalysis A: General, 2012, 441-442, 47-53.	4.3	36
36	Human lymphocyte PEEK-WC hollow fiber membrane bioreactor. Journal of Biotechnology, 2007, 132, 65-74.	3.8	35

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37	Electrospun Au/CeO2 nanofibers: A highly accessible low-pressure drop catalyst for preferential CO oxidation. Journal of Catalysis, 2015, 329, 479-489.	6.2	35
38	Laser-treated electrospun fibers loaded with nano-hydroxyapatite for bone tissue engineering. International Journal of Pharmaceutics, 2017, 525, 112-122.	5.2	35
39	The effect of PEGylated hollow gold nanoparticles on stem cell migration: potential application in tissue regeneration. Nanoscale, 2017, 9, 9848-9858.	5.6	35
40	Cleavable and thermo-responsive hybrid nanoparticles for on-demand drug delivery. Journal of Colloid and Interface Science, 2019, 533, 171-181.	9.4	35
41	Separation of propylene/propane mixtures by titanosilicate ETS-10 membranes prepared in one-step seeded hydrothermal synthesis. Journal of Membrane Science, 2008, 311, 326-335.	8.2	34
42	Production, characterization and testing of antibacterial PVA membranes loaded with HAâ€Ag₃PO₄ nanoparticles, produced by SCâ€CO₂ phase inversion. Journal of Chemical Technology and Biotechnology, 2019, 94, 98-108.	3.2	33
43	Human liver microtissue spheroids in hollow fiber membrane bioreactor. Colloids and Surfaces B: Biointerfaces, 2017, 160, 272-280.	5.0	31
44	Composite scaffold obtained by electro-hydrodynamic technique for infection prevention and treatment in bone repair. International Journal of Pharmaceutics, 2019, 557, 162-169.	5.2	30
45	Antibacterial Effect of Thymol Loaded SBA-15 Nanorods Incorporated in PCL Electrospun Fibers. Nanomaterials, 2020, 10, 616.	4.1	29
46	Membrane Bioreactor for Cell Tissues and Organoids. Artificial Organs, 2006, 30, 793-802.	1.9	28
47	Antimicrobial Electrospun Polycaprolactone-Based Wound Dressings: An In Vitro Study About the Importance of the Direct Contact to Elicit Bactericidal Activity. Advances in Wound Care, 2019, 8, 438-451.	5.1	28
48	Xylene isomerization in a membrane reactor. Chemical Engineering Journal, 2006, 122, 167-174.	12.7	27
49	Fetuin-A gene expression, synthesis and release in primary human hepatocytes cultured in a galactosylated membrane bioreactor. Biomaterials, 2007, 28, 4836-4844.	11.4	27
50	Preparation and characterization of two-layered mordenite-ZSM-5 bi-functional membranes. Microporous and Mesoporous Materials, 2006, 93, 318-324.	4.4	26
51	Nonreducible, Basic La₂O₃ to Reducible, Acidic La_{2â€“x}Sb_xO₃ with Significant Oxygen Storage Capacity, Lower Band Gap, and Effect on the Catalytic Activity. Journal of Physical Chemistry C, 2017, 121, 481-489.	3.1	26
52	Targeted Release of Probiotics from Enteric Microparticulated Formulations. Polymers, 2019, 11, 1668.	4.5	26
53	Combustion of Volatile Organic Compounds at Trace Concentration Levels in Zeolite-Coated Microreactors. Industrial & Engineering Chemistry Research, 2010, 49, 6941-6947.	3.7	24
54	Human hepatocyte functions in a galactosylated membrane bioreactor. Journal of Membrane Science, 2007, 302, 27-35.	8.2	23

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55	Flat and tubular membrane systems for the reconstruction of hippocampal neuronal network. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 299-313.	2.7	23
56	Drug-eluting wound dressings having sustained release of antimicrobial compounds. European Journal of Pharmaceutics and Biopharmaceutics, 2020, 152, 327-339.	4.3	23
57	Ultra-Small Silver Nanoparticles Immobilized in Mesoporous SBA-15. Microwave-Assisted Synthesis and Catalytic Activity in the 4-Nitrophenol Reduction. Catalysis Today, 2021, 362, 81-89.	4.4	23
58	Continuous Microwave-Assisted Synthesis of Silver Nanoclusters Confined in Mesoporous SBA-15: Application in Alkyne Cyclizations. Chemistry of Materials, 2020, 32, 2874-2883.	6.7	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. Catalysis Communications, 2017, 100, 93-97.	3.3	20
60	Effect of Nitinol surface treatments on its physicoâ€chemical properties. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 91B, 337-347.	3.4	19
61	Kinetics of oxygen uptake by cells potentially used in a tissue engineered trachea. Biomaterials, 2014, 35, 6829-6837.	11.4	19
62	Enhanced oxygen evolution activity of Co3â^'xNixO4 compared to Co3O4 by low Ni doping. Journal of Electroanalytical Chemistry, 2018, 823, 482-491.	3.8	19
63	Electrochemical insights into layered La2CuO4 perovskite: Active ionic copper for selective CO2 electroreduction at low overpotential. Electrochimica Acta, 2019, 326, 134952.	5.2	19
64	Pharmacokinetic control on the release of antimicrobial drugs from pH-responsive electrospun wound dressings. International Journal of Pharmaceutics, 2022, 624, 122003.	5.2	19
65	Efficiency of Antimicrobial Electrospun Thymol-Loaded Polycaprolactone Mats In Vivo. ACS Applied Bio Materials, 2020, 3, 3430-3439.	4.6	18
66	Pt-CoOx nanoparticles supported on ETS-10 for preferential oxidation of CO reaction. Applied Catalysis A: General, 2016, 528, 86-92.	4.3	17
67	Membrane bioreactor for investigation of neurodegeneration. Materials Science and Engineering C, 2019, 103, 109793.	7.3	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. Catalysis Today, 2022, 383, 266-276.	4.4	17
69	Structure and Properties of Reactively Extruded Opaque Post-Consumer Recycled PET. Polymers, 2021, 13, 3531.	4.5	17
70	Unintended emission of nanoparticle aerosols during common laboratory handling operations. Journal of Hazardous Materials, 2014, 279, 75-84.	12.4	15
71	Polycaprolactone/mesoporous silica MCM-41 composites prepared by in situ polymerization. Particuology, 2017, 30, 135-143.	3.6	15
72	Pd and Pd,In nanoparticles supported on polymer fibres as catalysts for the nitrate and nitrite reduction in aqueous media. Journal of Environmental Chemical Engineering, 2020, 8, 103651.	6.7	15

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73	Effect of inorganic 1D nanoparticles on electrooptic properties of 5CB liquid crystal. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2328-2334.	1.8	14
74	Nanocoral CuCo2S4 thiospinels: Oxygen evolution reaction via redox interaction of metal ions. Electrochimica Acta, 2021, 370, 137701.	5.2	13
75	Enhancement of the fatigue life of recycled PP by incorporation of recycled opaque PET collected from household milk bottle wastes. Waste Management, 2021, 125, 49-57.	7.4	13
76	Identification of TiO₂ nanoparticles using La and Ce as labels: application to the evaluation of surface contamination during the handling of nanosized matter. Environmental Science: Nano, 2014, 1, 496-503.	4.3	12
77	Luminescent mesoporous nanorods as photocatalytic enzyme-like peroxidase surrogates. Chemical Science, 2018, 9, 7766-7778.	7.4	12
78	Antimicrobial Wound Dressings against Fluorescent and Methicillin-Sensitive Intracellular Pathogenic Bacteria. ACS Applied Materials & Interfaces, 2020, 12, 51302-51313.	8.0	12
79	Platinum substituted Cobalt(II, III) Oxide: Interplay of tetrahedral Co(II) sites towards electrochemical oxygen evolution activity. Electrochimica Acta, 2021, 365, 137234.	5.2	12
80	Chitosan-based coatings in the prevention of intravascular catheter-associated infections. Journal of Biomaterials Applications, 2018, 32, 725-737.	2.4	11
81	Enzyme structure and function protection from gastrointestinal degradation using enteric coatings. International Journal of Biological Macromolecules, 2018, 119, 413-422.	7.5	11
82	Physicochemical and optical properties of one-pot combustion synthesized Pr doped La2O3/La(OH)3. Journal of Luminescence, 2020, 219, 116893.	3.1	11
83	Electroreduction of Carbon Dioxide into Selective Hydrocarbons at Low Overpotential Using Isomorphic Atomic Substitution in Copper Oxide. ACS Sustainable Chemistry and Engineering, 2020, 8, 179-189.	6.7	11
84	Controlling Particle Size and Release Kinetics in the Sustained Delivery of Oral Antibiotics Using pH-Independent Mucoadhesive Polymers. Molecular Pharmaceutics, 2020, 17, 3314-3327.	4.6	11
85	Nanogels with High Loading of Anesthetic Nanocrystals for Extended Duration of Sciatic Nerve Block. ACS Applied Materials & Interfaces, 2021, 13, 17220-17235.	8.0	11
86	Intense generation of respirable metal nanoparticles from a low-power soldering unit. Journal of Hazardous Materials, 2013, 256-257, 84-89.	12.4	10
87	The Effect of Titanium Dioxide Surface Modification on the Dispersion, Morphology, and Mechanical Properties of Recycled PP/PET/TiO2 PBNANOs. Polymers, 2019, 11, 1692.	4.5	10
88	Tailoring the rheology and electrical properties of polyamide 66 nanocomposites with hybrid filler approach: graphene and carbon nanotubes. Polymer International, 2021, 70, 1329-1343.	3.1	10
89	Fluidized Bed Generation of Stable Silica Nanoparticle Aerosols. Aerosol Science and Technology, 2013, 47, 867-874.	3.1	9
90	Double porous poly (Æ•caprolactone)/chitosan membrane scaffolds as niches for human mesenchymal stem cells. Colloids and Surfaces B: Biointerfaces, 2019, 184, 110493.	5.0	9

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91	Cobalt deposited on micro and nanometric structures of ceria and zirconia applied in diesel soot combustion. Molecular Catalysis, 2020, 481, 100636.	2.0	9
92	Hollow Fiber and Nanofiber Membranes in Bioartificial Liver and Neuronal Tissue Engineering. Cells Tissues Organs, 2021, , 1-30.	2.3	9
93	Selective point-of-care detection of pathogenic bacteria using sialic acid functionalized gold nanoparticles. Talanta, 2021, 234, 122644.	5.5	9
94	Gold-Platinum Nanoparticles with Core-Shell Configuration as Efficient Oxidase-like Nanosensors for Glutathione Detection. Nanomaterials, 2022, 12, 755.	4.1	9
95	Submicronic Filtering Media Based on Electrospun Recycled PET Nanofibers: Development, Characterization, and Method to Manufacture Surgical Masks. Nanomaterials, 2022, 12, 925.	4.1	9
96	High-speed water sterilization using silver-containing cellulose membranes. Nanotechnology, 2014, 25, 305101.	2.6	8
97	Dermal-epidermal membrane systems by using human keratinocytes and mesenchymal stem cells isolated from dermis. Materials Science and Engineering C, 2017, 71, 943-953.	7.3	8
98	Nanoengineering Palladium Plasmonic Nanosheets Inside Polymer Nanospheres for Photothermal Therapy and Targeted Drug Delivery. Advanced Functional Materials, 2022, 32, 2106932.	14.9	8
99	Mechanochemical characterisation of silica-based coatings on Nitinol substrates. Microporous and Mesoporous Materials, 2007, 98, 292-302.	4.4	7
100	Potential Implantable Nanofibrous Biomaterials Combined with Stem Cells for Subchondral Bone Regeneration. Materials, 2020, 13, 3087.	2.9	7
101	Generation of TiO2Aerosols from Liquid Suspensions: Influence of Colloid Characteristics. Aerosol Science and Technology, 2013, 47, 1383-1392.	3.1	6
102	Influence of La incorporation on the catalytic activity of Ru/ETS-10 catalysts for hydrogen production. Applied Catalysis A: General, 2015, 504, 391-398.	4.3	6
103	Polymeric membranes modulate human keratinocyte differentiation in specific epidermal layers. Colloids and Surfaces B: Biointerfaces, 2016, 146, 352-362.	5.0	6
104	Microflow Nanoprecipitation of Positively Charged Gastroresistant Polymer Nanoparticles of EudragitÂ® RS100: A Study of Fluid Dynamics and Chemical Parameters. Materials, 2020, 13, 2925.	2.9	5
105	Preparation of Cu cluster catalysts by simultaneous coolingâ€“microwave heating: application in radical cascade annulation. Nanoscale Advances, 2021, 3, 1087-1095.	4.6	4
106	Multifunctional membranes for lipidic nanovesicle capture. Separation and Purification Technology, 2022, 298, 121561.	7.9	4
107	Human galactosylated membrane bioreactor for the long-term maintenance of liver specific functions. Desalination, 2006, 199, 147-149.	8.2	3
108	Light activated pulsatile drug delivery for prolonged peripheral nerve block. Biomaterials, 2022, 283, 121453.	11.4	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 MoS2Nanospheres for Efficient and Durable Electrocatalytic Hydrogen Evolution Reaction. ChemistrySelect, 2017, 2, 4667-4672.	1.5	2
111	Novel bioactive polymeric membranes to elicit specific human hepatocyte responses. Desalination, 2006, 199, 261-262.	8.2	1
112	Effect of Bi 3+ Ion Concentration on Physicochemical, Optical and Catalytic Properties of Oneâ€Pot Combustion Synthesized Nanocrystalline Biâ€Doped La 2 O 3. ChemistrySelect, 2020, 5, 7548-7559.	1.5	1