

Ivan Jerman

List of Publications by Year in descending order

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101
papers

2,477
citations

185998

28
h-index

233125

45
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103
all docs

103
docs citations

103
times ranked

2935
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Properties and Antibacterial Effects of Hydrophobic and Oleophobic Sol-Gel Coatings for Cotton Fabrics. <i>Langmuir</i> , 2009, 25, 5869-5880.	1.6	180
2	Sol-gel coating of cellulose fibres with antimicrobial and repellent properties. <i>Journal of Sol-Gel Science and Technology</i> , 2008, 47, 44-57.	1.1	151
3	Functionalization of cellulose fibres with DOPO-polysilsesquioxane flame retardant nanocoating. <i>Cellulose</i> , 2015, 22, 1893-1910.	2.4	112
4	Ionic conductivity, infrared and Raman spectroscopic studies of 1-methyl-3-propylimidazolium iodide ionic liquid with added iodine. <i>Electrochimica Acta</i> , 2008, 53, 2281-2288.	2.6	102
5	The surface modification of cellulose fibres to create super-hydrophobic, oleophobic and self-cleaning properties. <i>Cellulose</i> , 2013, 20, 277-289.	2.4	91
6	The effect of polyhedral oligomeric silsesquioxane dispersant and low surface energy additives on spectrally selective paint coatings with self-cleaning properties. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 232-245.	3.0	75
7	Graphene nanoplatelets as an anticorrosion additive for solar absorber coatings. <i>Solar Energy Materials and Solar Cells</i> , 2018, 176, 19-29.	3.0	68
8	A Structural and Corrosion Study of Triethoxysilyl Functionalized POSS Coatings on AA 2024 Alloy. <i>Langmuir</i> , 2008, 24, 5029-5037.	1.6	58
9	Multifunctional water and oil repellent and antimicrobial properties of finished cotton: influence of sol-gel finishing procedure. <i>Journal of Sol-Gel Science and Technology</i> , 2012, 61, 340-354.	1.1	56
10	Comparison of electrochromic properties of Ni _{1-x} O in lithium and lithium-free aprotic electrolytes: From Ni _{1-x} O pigment coatings to flexible electrochromic devices. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 116-130.	3.0	54
11	Study of flame-retardant finishing of cellulose fibres: Organic-inorganic hybrid versus conventional organophosphonate. <i>Polymer Degradation and Stability</i> , 2013, 98, 2602-2608.	2.7	53
12	Imidazolium-based ionic liquid derivatives for application in electrochromic devices. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 126-135.	3.0	49
13	POSS based ionic liquid as an electrolyte for hybrid electrochromic devices. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 3472-3481.	3.0	49
14	Cycling stability and degradation mechanism of LiMnPO ₄ based electrodes. <i>Journal of Power Sources</i> , 2016, 303, 97-108.	4.0	44
15	Electrochemical Performance and Mechanism of Calcium Metal-Organic Battery. <i>Batteries and Supercaps</i> , 2021, 4, 214-220.	2.4	44
16	Novel multifunctional water- and oil-repellent, antibacterial, and flame-retardant cellulose fibres created by the sol-gel process. <i>Cellulose</i> , 2014, 21, 2611-2623.	2.4	43
17	Synergistic inhibitory action of P- and Si-containing precursors in sol-gel coatings on the thermal degradation of polyamide 6. <i>Polymer Degradation and Stability</i> , 2016, 128, 245-252.	2.7	39
18	In situ prepared polyamide 6/DOPO-derivative nanocomposite for melt-spinning of flame retardant textile filaments. <i>Polymer Degradation and Stability</i> , 2019, 166, 50-59.	2.7	39

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19	Corrosion protection of Sunselect, a spectrally selective solar absorber coating, by (3-mercaptopropyl)trimethoxysilane. <i>Solar Energy Materials and Solar Cells</i> , 2009, 93, 1733-1742.	3.0	36
20	Surface with antimicrobial activity obtained through silane coating with covalently bound polymyxin B. <i>Journal of Materials Science: Materials in Medicine</i> , 2010, 21, 2775-2782.	1.7	34
21	A structural and corrosion study of triethoxysilyl and perfluorooctyl functionalized polyhedral silsesquioxane nanocomposite films on AA 2024 alloy. <i>Thin Solid Films</i> , 2010, 518, 2710-2721.	0.8	33
22	Polyhedral oligomeric silsesquioxane trisilanols as pigment surface modifiers for fluoropolymer based Thickness Sensitive Spectrally Selective (TSSS) paint coatings. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 423-431.	3.0	33
23	Multifunctional superhydrophobic/oleophobic and flame-retardant cellulose fibres with improved ice-releasing properties and passive antibacterial activity prepared via the sol-gel method. <i>Journal of Sol-Gel Science and Technology</i> , 2014, 70, 385-399.	1.1	33
24	High-solar-absorptance CSP coating characterization and reliability testing with isothermal and cyclic loads for service-life prediction. <i>Energy and Environmental Science</i> , 2019, 12, 1679-1694.	15.6	33
25	Dye-Sensitized Solar Cells Made by Using a Polysilsesquioxane Polymeric Ionic Fluid as Redox Electrolyte. <i>Journal of Physical Chemistry C</i> , 2007, 111, 6528-6532.	1.5	31
26	Embedment of silver into temperature- and pH-responsive microgel for the development of smart textiles with simultaneous moisture management and controlled antimicrobial activities. <i>Carbohydrate Polymers</i> , 2017, 159, 161-170.	5.1	31
27	Electrochromic Ni ^x O pigment coatings and plastic film-based Ni ^x O/TiO ₂ device with transmissive light modulation. <i>Solar Energy Materials and Solar Cells</i> , 2012, 107, 175-187.	3.0	30
28	Influence of silsesquioxane addition on polyurethane-based protective coatings for bronze surfaces. <i>Applied Surface Science</i> , 2019, 467-468, 912-925.	3.1	30
29	Effect of Different Flame-Retardant Bridged DOPO Derivatives on Properties of in Situ Produced Fiber-Forming Polyamide 6. <i>Polymers</i> , 2020, 12, 657.	2.0	30
30	New sustainable flame retardant DOPO-NH-functionalized polyamide 6 and filament yarn. <i>Chemical Engineering Journal</i> , 2021, 426, 130760.	6.6	30
31	Emerging triazine-based graphitic carbon nitride: A potential signal-transducing nanostructured material for sensor applications. <i>Nano Select</i> , 2021, 2, 712-743.	1.9	27
32	Multifunctional antibacterial and ultraviolet protective cotton cellulose developed by in situ biosynthesis of silver nanoparticles into a polysiloxane matrix mediated by sumac leaf extract. <i>Applied Surface Science</i> , 2021, 563, 150361.	3.1	25
33	Low-temperature V-oxide film for a flexible electrochromic device: Comparison of its electrochromic, IR and Raman properties to those of a crystalline V ₂ O ₅ film. <i>Solar Energy Materials and Solar Cells</i> , 2019, 196, 185-199.	3.0	24
34	Mechanical properties of high density packed silica/poly(vinyl chloride) composites. <i>Polymer Engineering and Science</i> , 2013, 53, 1448-1453.	1.5	23
35	Symmetrical thiol functionalized polyhedral oligomeric silsesquioxanes as building blocks for LB films. <i>Soft Matter</i> , 2011, 7, 8862.	1.2	22
36	Structural optimisation of a multifunctional water- and oil-repellent, antibacterial, and flame-retardant sol-gel coating on cellulose fibres. <i>Cellulose</i> , 2017, 24, 1511-1528.	2.4	22

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37	Exploring the effect of morphology and surface properties of nanoshaped Pd/CeO ₂ catalysts on CO ₂ hydrogenation to methanol. <i>Applied Catalysis A: General</i> , 2021, 627, 118394.	2.2	22
38	Electrochemical and in-situ Raman spectroelectrochemical study of 1-methyl-3-propylimidazolium iodide ionic liquid with added iodine. <i>Electrochemistry Communications</i> , 2007, 9, 2062-2066.	2.3	21
39	Amphiphilic POSS-based ionic liquid electrolyte additives as a boost for dye-sensitized solar cell performance. <i>Solar Energy</i> , 2019, 183, 619-631.	2.9	21
40	Understanding the Oxygen Reduction Reaction Activity of Quasi-1D and 2D N-Doped Heat-Treated Graphene Oxide Catalysts with Inherent Metal Impurities. <i>ACS Applied Energy Materials</i> , 2021, 4, 3593-3603.	2.5	21
41	Electrochemical Mechanism of Al Metal-Organic Battery Based on Phenanthrenequinone. <i>Energy Material Advances</i> , 2021, 2021, .	4.7	21
42	Toward the Continuous Production of Multigram Quantities of Highly Uniform Supported Metallic Nanoparticles and Their Application for Synthesis of Superior Intermetallic Pt-Alloy ORR Electrocatalysts. <i>ACS Applied Energy Materials</i> , 2021, 4, 13819-13829.	2.5	21
43	Preparation of a TiMEMO nanocomposite by the sol-gel method and its application in coloured thickness insensitive spectrally selective (TISS) coatings. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 1149-1161.	3.0	20
44	Novel Green In Situ Synthesis of ZnO Nanoparticles on Cotton Using Pomegranate Peel Extract. <i>Materials</i> , 2021, 14, 4472.	1.3	20
45	Effect of silsesquioxane addition on the protective performance of fluoropolymer coatings for bronze surfaces. <i>Materials and Design</i> , 2019, 178, 107860.	3.3	19
46	ATR-FTIR spectroscopy combined with data manipulation as a pre-screening method to assess DNA preservation in skeletal remains. <i>Forensic Science International: Genetics</i> , 2020, 44, 102196.	1.6	18
47	Inherent defects in sol-precipitation/hydrothermally derived SrTiO ₃ nanopowders. <i>Ceramics International</i> , 2013, 39, 6727-6734.	2.3	17
48	Influence of oxygen plasma pre-treatment on the water repellency of cotton fibers coated with perfluoroalkyl-functionalized polysilsesquioxane. <i>Fibers and Polymers</i> , 2016, 17, 695-704.	1.1	17
49	Influence of amino functionalised POSS additive on the corrosion properties of (3-glycidoxypropyl)trimethoxysilane coatings on AA 2024 alloy. <i>Progress in Organic Coatings</i> , 2011, 72, 334-342.	1.9	16
50	Review of the spectrally selective (CSP) absorber coatings, suitable for use in SHIP. <i>Solar Energy Materials and Solar Cells</i> , 2022, 238, 111625.	3.0	16
51	Effect of silica/PVC composite coatings on steel-substrate corrosion protection. <i>Progress in Organic Coatings</i> , 2012, 75, 392-397.	1.9	15
52	Round Robin Test for the comparison of spectral emittance measurement apparatuses. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 476-485.	3.0	15
53	Tailoring of multifunctional cellulose fibres with "lotus effect" and flame retardant properties. <i>Cellulose</i> , 2014, 21, 595-605.	2.4	14
54	Redox-Active Functionalized Graphene Nanoribbons as Electrode Material for Li-Ion Batteries. <i>ChemElectroChem</i> , 2014, 1, 2131-2137.	1.7	14

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55	Fabrication of the hierarchically roughened bumpy-surface topography for the long-lasting highly oleophobic "lotus effect" on cotton fibres. <i>Cellulose</i> , 2016, 23, 3301-3318.	2.4	14
56	Role of CO ₂ During Oxidative Dehydrogenation of Propane Over Bulk and Activated-Carbon Supported Cerium and Vanadium Based Catalysts. <i>Catalysis Letters</i> , 2021, 151, 2816-2832.	1.4	14
57	Development of solvent- and water-borne fluoropolymer protective coatings for patina-free bronze discs. <i>Progress in Organic Coatings</i> , 2018, 125, 266-278.	1.9	13
58	Combining polyNiPAAm/chitosan microgel and bio-barrier polysiloxane matrix to create smart cotton fabric with responsive moisture management and antibacterial properties: influence of the application process. <i>Journal of Sol-Gel Science and Technology</i> , 2017, 83, 19-34.	1.1	12
59	Polyamide 6 composite fibers with incorporated mixtures of melamine cyanurate, carbon nanotubes, and carbon black. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47007.	1.3	12
60	Influence of N-, P- and Si-based Flame Retardant Mixtures on Flammability, Thermal Behavior and Mechanical Properties of PA6 Composite Fibers. <i>Fibers and Polymers</i> , 2018, 19, 1194-1206.	1.1	11
61	Smart Stimuli-Responsive Polylactic Acid-Hydrogel Fibers Produced via Electrospinning. <i>Fibers and Polymers</i> , 2019, 20, 1857-1868.	1.1	11
62	Preparation of electrochromic NiO and TiO ₂ coatings from pigment dispersions and their application in electrochromic foil based devices. <i>Progress in Organic Coatings</i> , 2013, 76, 1752-1755.	1.9	10
63	Cotton fiber hot spot in situ growth of St \ddot{A} ber particles. <i>Cellulose</i> , 2015, 22, 3597-3607.	2.4	10
64	Modified bis-(3-(3-(3-triethoxysilyl)propyl)thioureido)propyl terminated poly(dimethylsiloxane)/POSS protective coatings on AA 2024. <i>Progress in Organic Coatings</i> , 2017, 103, 1-14.	1.9	10
65	Metallopolymers and non-stoichiometric nickel oxide: Towards neutral tint large-area electrochromic devices. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 110002.	3.0	10
66	Influence of non-thermal plasma treatment on the adsorption of a stimuli-responsive nanogel onto polyethylene terephthalate fabric. <i>Progress in Organic Coatings</i> , 2018, 120, 198-207.	1.9	9
67	A Unique Interactive Nanostructure Knitting based Passive Sampler Adsorbent for Monitoring of Hg ²⁺ in Water. <i>Sensors</i> , 2019, 19, 3432.	2.1	9
68	Characterization of Polyamide 6/Multilayer Graphene Nanoplatelet Composite Textile Filaments Obtained Via In Situ Polymerization and Melt Spinning. <i>Polymers</i> , 2020, 12, 1787.	2.0	9
69	Graphitic Carbon Nitride as a New Sustainable Photocatalyst for Textile Functionalization. <i>Polymers</i> , 2021, 13, 2568.	2.0	9
70	Recent Advances in Production of Flame Retardant Polyamide 6 Filament Yarns. <i>Tekstilec</i> , 2018, 61, 136-148.	0.3	9
71	The effect of sol-gel boehmite coatings on the corrosion and decarburization of C45 steel. <i>Journal of Sol-Gel Science and Technology</i> , 2018, 86, 568-579.	1.1	8
72	Separating forensic, WWII, and archaeological human skeletal remains using ATR-FTIR spectra. <i>International Journal of Legal Medicine</i> , 2020, 134, 811-821.	1.2	8

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73	Tailored Crosslinking Process and Protective Efficiency of Epoxy Coatings Containing Glycidyl-POSS. <i>Polymers</i> , 2020, 12, 591.	2.0	8
74	Morphological, optical and electrical characterization of titania-nanotubes-based dye-sensitized solar cells. <i>Solar Energy</i> , 2016, 127, 232-238.	2.9	7
75	Mechanisms of hydrophobization of polymeric composites etched in CF ₄ plasma. <i>Surface and Interface Analysis</i> , 2017, 49, 334-339.	0.8	7
76	Organofunctional Trialkoxysilane Sol-Gel Precursors for Chemical Modification of Textile Fibres. <i>Tekstilec</i> , 2017, 60, 198-213.	0.3	7
77	Effect of bridged DOPO/polyurethane nanocomposites on solar absorber coatings with reduced flammability. <i>Solar Energy</i> , 2022, 231, 104-114.	2.9	7
78	Bio-Based Epoxy Adhesives with Lignin-Based Aromatic Monophenols Replacing Bisphenol A. <i>Polymers</i> , 2021, 13, 3879.	2.0	7
79	Tailoring of temperature- and pH-responsive cotton fabric with antimicrobial activity: Effect of the concentration of a bio-barrier-forming agent. <i>Carbohydrate Polymers</i> , 2017, 174, 677-687.	5.1	6
80	Comparison of responsive behaviour of smart PLA fabrics applied with temperature and pH responsive microgel and nanogel. <i>Progress in Organic Coatings</i> , 2018, 124, 213-223.	1.9	6
81	Spectroelectrochemistry in the investigation of sol-gel electrochromic V ₂ O ₅ films. <i>Journal of Sol-Gel Science and Technology</i> , 2020, 95, 587-598.	1.1	6
82	Influence of the Prepolymer Type and Synthesis Parameters on Self-Healing Anticorrosion Properties of Composite Coatings Containing Isophorone Diisocyanate-Loaded Polyurethane Microcapsules. <i>Polymers</i> , 2021, 13, 840.	2.0	6
83	The influence of nano-ZnO application methods on UV protective properties of cotton. <i>Acta Chimica Slovenica</i> , 2014, 61, 587-94.	0.2	6
84	Antimicrobial activity of essential oils and their controlled release from the smart PLA fabric. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 460, 012011.	0.3	5
85	Influence of the structure of a bio-barrier forming agent on the stimuli-response and antimicrobial activity of a smart non-cytotoxic cotton fabric. <i>Cellulose</i> , 2018, 25, 6231-6245.	2.4	5
86	High-temperature ion baseball for enhancing concentrated solar power efficiency. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 109974.	3.0	5
87	Proactive Release of Antimicrobial Essential Oil from a Smart Cotton Fabric. <i>Coatings</i> , 2019, 9, 242.	1.2	5
88	Preservation state assessment and post-mortem interval estimation of human skeletal remains using ATR-FTIR spectra. <i>Australian Journal of Forensic Sciences</i> , 2022, 54, 511-532.	0.7	5
89	New Insights into Antibacterial and Antifungal Properties, Cytotoxicity and Aquatic Ecotoxicity of Flame Retardant PA6/DOPO-Derivative Nanocomposite Textile Fibers. <i>Polymers</i> , 2021, 13, 905.	2.0	5
90	Forty shades of black: A benchmark of high temperature sprayable black coatings applied on Haynes 230. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	5

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91	Charge balancing and optical contrast optimization in Fe-MEPE/Ni _{1-x} O electrochromic devices containing a Li reference electrode. <i>Solar Energy Materials and Solar Cells</i> , 2021, 227, 111080.	3.0	3
92	Merging of oxide species with black spinel structure by CSP operating temperature. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	2
93	Influence of an MgTiTaON Inserted Layer on Magnetic Properties and Microstructure of FePtAgC Films. <i>Coatings</i> , 2019, 9, 238.	1.2	2
94	In situ Raman and UV-visible study of hybrid electrochromic devices with bis end-capped designed trialkoxysilyl-functionalized ionic liquid based electrolytes. <i>Solar Energy Materials and Solar Cells</i> , 2021, 220, 110863.	3.0	2
95	Bone fragment or bone powder? ATR-FTIR spectroscopy-based comparison of chemical composition and DNA preservation of bones after 10 years in a freezer. <i>International Journal of Legal Medicine</i> , 2021, 135, 1695-1707.	1.2	2
96	Polyhedral oligomeric silsesquioxanes as protective monolayer coatings against the high-temperature corrosion of concentrating solar power absorber surfaces. <i>Solar Energy Materials and Solar Cells</i> , 2021, 223, 110984.	3.0	2
97	Application of Stimuli Responsive Microgel for Creation of Smart Cotton Fabric with Antibacterial Properties. <i>Tekstiler</i> , 2016, 59, 142-148.	0.3	2
98	Modification of cotton fabric with temperature/pH responsive hydrogel: influence of particles size. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 254, 072024.	0.3	1
99	Influence of crosslinker structure on performance of functionalised organic-inorganic hybrid sol-gel coating. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 254, 122013.	0.3	1
100	Dealing with minor differences in bone matrix: can spectra follow the DNA preservation?. <i>Australian Journal of Forensic Sciences</i> , 0, , 1-20.	0.7	1
101	POSS-modified black pigment for CSP deployment. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0