

# Paschal Nbelayim

## List of Publications by Year in descending order

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102  
papers

4,024  
citations

159585

30  
h-index

123424

61  
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104  
all docs

104  
docs citations

104  
times ranked

3620  
citing authors

#	ARTICLE	IF	CITATIONS
1	Superhydrophobic/Superhydrophilic Micropatterning on Flowerlike Alumina Coating Film by the Sol-Gel Method. <i>Chemistry of Materials</i> , 2000, 12, 590-592.	6.7	453
2	Heteroatom doped graphene engineering for energy storage and conversion. <i>Materials Today</i> , 2020, 39, 47-65.	14.2	400
3	A review on synthesis of graphene, h-BN and MoS <sub>2</sub> for energy storage applications: Recent progress and perspectives. <i>Nano Research</i> , 2019, 12, 2655-2694.	10.4	283
4	Liquid-phase syntheses of sulfide electrolytes for all-solid-state lithium battery. <i>Nature Reviews Chemistry</i> , 2019, 3, 189-198.	30.2	238
5	An overview of recent progress in nanostructured carbon-based supercapacitor electrodes: From zero to bi-dimensional materials. <i>Carbon</i> , 2022, 193, 298-338.	10.3	168
6	Transparent Anatase Nanocomposite Films by the Sol-Gel Process at Low Temperatures. <i>Journal of the American Ceramic Society</i> , 2000, 83, 229-31.	3.8	150
7	Mechanisms of removal of heavy metal ions by ZnO particles. <i>Heliyon</i> , 2019, 5, e01440.	3.2	131
8	Honeycomb-like open-edged reduced-graphene-oxide-enclosed transition metal oxides (NiO/Co <sub>3</sub> O <sub>4</sub> ) as improved electrode materials for high-performance supercapacitor. <i>Journal of Energy Storage</i> , 2020, 30, 101539.	8.1	112
9	Microwave-assisted synthesis of Mn <sub>3</sub> O <sub>4</sub> -Fe <sub>2</sub> O <sub>3</sub> /Fe <sub>3</sub> O <sub>4</sub> @rGO ternary hybrids and electrochemical performance for supercapacitor electrode. <i>Diamond and Related Materials</i> , 2020, 101, 107622.	3.9	102
10	Effects of drying temperature and ethanol concentration on bipolar switching characteristics of natural Aloe vera-based memory devices. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 26833-26853.	2.8	101
11	Synthesis of plate-like Li <sub>3</sub> PS <sub>4</sub> solid electrolyte via liquid-phase shaking for all-solid-state lithium batteries. <i>Ionics</i> , 2017, 23, 2061-2067.	2.4	96
12	Facile in-situ simultaneous electrochemical reduction and deposition of reduced graphene oxide embedded palladium nanoparticles as high performance electrode materials for supercapacitor with excellent rate capability. <i>Electrochimica Acta</i> , 2019, 314, 124-134.	5.2	93
13	Facile and fast microwave-assisted formation of reduced graphene oxide-wrapped manganese cobaltite ternary hybrids as improved supercapacitor electrode material. <i>Applied Surface Science</i> , 2019, 481, 296-306.	6.1	86
14	Heteroatom doping of 2D graphene materials for electromagnetic interference shielding: a review of recent progress. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2022, 47, 570-619.	12.3	68
15	Fine Patterning and Characterization of Gel Films Derived from Methyltriethoxysilane and Tetraethoxysilane. <i>Journal of the American Ceramic Society</i> , 1998, 81, 2849-2852.	3.8	64
16	Formation of Anatase Nanocrystals in Sol-Gel Derived TiO <sub>2</sub> -SiO <sub>2</sub> Thin Films with Hot Water Treatment. <i>Journal of Sol-Gel Science and Technology</i> , 2000, 19, 585-588.	2.4	58
17	Preparation of Transparent Thick Films by Electrophoretic Sol-Gel Deposition Using Phenyltriethoxysilane-Derived Particles. <i>Journal of the American Ceramic Society</i> , 1998, 81, 2501-2503.	3.8	58
18	Systematic characterization of the effect of Ag@TiO <sub>2</sub> nanoparticles on the performance of plasmonic dye-sensitized solar cells. <i>Scientific Reports</i> , 2017, 7, 15690.	3.3	54

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19	Anatase nanocrystal dispersed thin films via sol-gel process with hot water treatment: effects of poly(ethylene glycol) addition on photocatalytic activities of the films. <i>Journal of Materials Chemistry</i> , 2001, 11, 2045-2048.	6.7	51
20	Superior performance of Ni(OH) <sub>2</sub> -ErGO@ NF electrode materials as pseudocapacitance using electrochemical deposition via two simple successive steps. <i>Journal of Energy Storage</i> , 2020, 30, 101485.	8.1	49
21	One-pot synthesis of reduced graphene oxide nanosheets anchored ZnO nanoparticles via microwave approach for electrochemical performance as supercapacitor electrode. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 15456-15465.	2.2	47
22	Effects of Addition of Poly(ethylene glycol) on the Formation of Anatase Nanocrystals in SiO <sub>2</sub> -TiO <sub>2</sub> Gel Films with Hot Water Treatment. <i>Chemistry of Materials</i> , 2001, 13, 2144-2149.	6.7	46
23	Thermal Softening Behavior and Application to Transparent Thick Films of Poly(benzylsilsesquioxane) Particles Prepared by the Sol-Gel Process. <i>Journal of the American Ceramic Society</i> , 2001, 84, 775-780.	3.8	45
24	In situ growth of laser-induced graphene micro-patterns on arbitrary substrates. <i>Nanoscale</i> , 2022, 14, 8914-8918.	5.6	44
25	Title is missing!. <i>Journal of Sol-Gel Science and Technology</i> , 2003, 27, 61-69.	2.4	42
26	Fast synthesis of Li <sub>2</sub> S-P <sub>2</sub> S <sub>5</sub> -LiI solid electrolyte precursors. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 1660-1664.	6.0	36
27	Nanomaterial Fabrication through the Modification of Sol-Gel Derived Coatings. <i>Nanomaterials</i> , 2021, 11, 181.	4.1	36
28	Title is missing!. <i>Journal of Sol-Gel Science and Technology</i> , 2000, 17, 61-69.	2.4	33
29	Title is missing!. <i>Journal of Sol-Gel Science and Technology</i> , 2001, 22, 41-46.	2.4	33
30	Thermal Softening Behavior of Poly(phenylsilsesquioxane) and Poly(benzylsilsesquioxane) Particles.. <i>Journal of the Ceramic Society of Japan</i> , 2000, 108, 830-835.	1.3	32
31	Preparation of Li <sub>7</sub> P <sub>2</sub> S <sub>8</sub> I Solid Electrolyte and Its Application in All-Solid-State Lithium-Ion Batteries with Graphite Anode. <i>Electronic Materials Letters</i> , 2019, 15, 409-414.	2.2	31
32	Sulfur-Carbon Nano Fiber Composite Solid Electrolyte for All-Solid-State Li-S Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 1569-1573.	5.1	29
33	Effects of Substituting S with Cl on the Structural and Electrochemical Characteristics of Na <sub>3</sub> SbS <sub>4</sub> Solid Electrolytes. <i>ACS Applied Energy Materials</i> , 2021, 4, 6125-6134.	5.1	28
34	Formation of TiO <sub>2</sub> (B) Nanocrystallites in Sol-Gel-Derived SiO <sub>2</sub> -TiO <sub>2</sub> Film. <i>Journal of the American Ceramic Society</i> , 1999, 82, 3248-3250.	3.8	26
35	Comparison of electrochemical and microbiological characterization of microbial fuel cells equipped with SPEEK and Nafion membrane electrode assemblies. <i>Journal of Bioscience and Bioengineering</i> , 2016, 122, 322-328.	2.2	25
36	Micro- and Nano-assembly of Composite Particles by Electrostatic Adsorption. <i>Nanoscale Research Letters</i> , 2019, 14, 297.	5.7	25

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37	Title is missing!. Journal of Sol-Gel Science and Technology, 2001, 20, 129-134.	2.4	24
38	Filamentary Conduction in Aloe Vera Film for Memory Application. Procedia Engineering, 2017, 184, 655-662.	1.2	24
39	Phosphosilicate Gels as a Solid State Proton Conductor at Medium Temperature and Low Humidity.. Journal of the Ceramic Society of Japan, 2002, 110, 131-134.	1.3	22
40	Photocatalytic Micropatterning of Transparent Ethylsilsesquioxane-Titania Hybrid Films. Chemistry of Materials, 2002, 14, 2693-2700.	6.7	22
41	Synthesis of Sulfide Solid Electrolytes through the Liquid Phase: Optimization of the Preparation Conditions. ACS Omega, 2020, 5, 26287-26294.	3.5	22
42	Fabrication of an all-solid-state Zn-air battery using electroplated Zn on carbon paper and KOH-ZrO <sub>2</sub> solid electrolyte. Applied Surface Science, 2019, 487, 343-348.	6.1	21
43	Development and fabrication of highly flexible, stretchable, and sensitive strain sensor for long durability based on silver nanoparticles-polydimethylsiloxane composite. Journal of Materials Science: Materials in Electronics, 2020, 31, 11897-11910.	2.2	21
44	Effects of Electrode Materials on Charge Conduction Mechanisms of Memory Device Based on Natural Aloe Vera. MRS Advances, 2016, 1, 2513-2518.	0.9	20
45	PMMA-ITO Composite Formation via Electrostatic Assembly Method for Infra-Red Filtering. Nanomaterials, 2019, 9, 886.	4.1	20
46	High ionic conductivity of multivalent cation doped Li <sub>6</sub> PS <sub>5</sub> Cl solid electrolytes synthesized by mechanical milling. RSC Advances, 2020, 10, 22304-22310.	3.6	20
47	Nanotube array-based barium titanate-cobalt ferrite composite film for affordable magnetoelectric multiferroics. Journal of Materials Chemistry C, 2019, 7, 10066-10072.	5.5	19
48	Mechanical Properties of Sulfide-Type Solid Electrolytes Analyzed by Indentation Methods. ACS Applied Energy Materials, 2022, 5, 2349-2355.	5.1	19
49	Preparation of Copolymerized Phenylsilsesquioxane-Benzylsilsesquioxane Particles. Journal of Sol-Gel Science and Technology, 2002, 23, 247-252.	2.4	18
50	Micropatterning on Methylsilsesquioxane-Phenylsilsesquioxane Thick Films by the Sol-Gel Method. Journal of the American Ceramic Society, 2000, 83, 3211-3213.	3.8	17
51	Facile formation of Fe <sub>3</sub> O <sub>4</sub> -particles decorated carbon paper and its application for all-solid-state rechargeable Fe-air battery. Applied Surface Science, 2019, 486, 257-264.	6.1	17
52	Green fabrication of 3D hierarchical blossom-like hybrid of peeled montmorillonite-ZnO for in-vitro electrochemical sensing of diltiazem hydrochloride drug. Materials Science and Engineering C, 2020, 111, 110773.	7.3	16
53	Voltammetric analysis of nitroxoline in tablets and human serum using modified carbon paste electrodes incorporating mesoporous carbon or multiwalled carbon nanotubes. RSC Advances, 2015, 5, 56086-56097.	3.6	15
54	Preparation of Li <sub>3</sub> PS <sub>4</sub> Solid Electrolyte by Liquid-Phase Shaking Using Organic Solvents with Carbonyl Group as Complex Forming Medium. Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2016, 63, 976-980.	0.2	15

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55	Preparation and Characterization of Stable and Active Pt@TiO <sub>2</sub> Core-Shell Nanoparticles as Electrocatalyst for Application in PEMFCs. ACS Applied Energy Materials, 2020, 3, 3269-3281.	5.1	15
56	The effect of solvent on reactivity of the Li <sub>2</sub> S-P <sub>2</sub> S <sub>5</sub> system in liquid-phase synthesis of Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> solid electrolyte. Scientific Reports, 2021, 11, 21097.	3.3	15
57	Ex situ Raman mapping study of mechanism of cordierite formation from stoichiometric oxide precursors. Journal of the European Ceramic Society, 2014, 34, 1009-1015.	5.7	14
58	Blue-emitting photoluminescence of rod-like and needle-like ZnO nanostructures formed by hot-water treatment of sol-gel derived coatings. Journal of Luminescence, 2015, 158, 44-49.	3.1	14
59	Investigation of the anchor layer formation on different substrates and its feasibility for optical properties control by aerosol deposition. Applied Surface Science, 2019, 483, 212-218.	6.1	13
60	Preparation of thermally and chemically robust superhydrophobic coating from liquid phase deposition and low voltage reversible electrowetting. Thin Solid Films, 2017, 636, 273-282.	1.8	12
61	Design of Heat-Conductive hBN-PMMA Composites by Electrostatic Nano-Assembly. Nanomaterials, 2020, 10, 134.	4.1	12
62	Proton Conductive Inorganic-Organic Hybrid Membranes as an Electrolyte for Fuel Cells Prepared from 3-Glycidoxypropyltrimethoxysilane and Orthophosphoric Acid. Electrochemistry, 2002, 70, 998-1000.	1.4	11
63	Synthesis of an Al <sub>3</sub> -doped Li <sub>2</sub> S positive electrode with superior performance in all-solid-state batteries. Materials Advances, 2022, 3, 2488-2494.	5.4	11
64	Nanometer Scale Proton Conductivity and Dynamics of CsHSO <sub>4</sub> and H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> Composites under Non-Humidified Conditions. Chemistry of Materials, 2010, 22, 3418-3425.	6.7	10
65	Controlled facile fabrication of plasmonic enhanced Au-decorated ZnO nanowire arrays dye-sensitized solar cells. Materials Today Communications, 2017, 13, 354-358.	1.9	10
66	Preparation of hydroxide ion conductive KOH-ZrO <sub>2</sub> electrolyte for all-solid state iron/air secondary battery. Solid State Ionics, 2014, 262, 188-191.	2.7	9
67	Effect of metal/metal oxide coupling on the photoluminescence properties of ZnO microrods. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	9
68	Development and Characterization of Clay-Nanocomposites for Water Purification. Materials, 2020, 13, 3793.	2.9	9
69	Effects of drying temperature on tomato-based thin film as self-powered UV photodetector. Applied Surface Science, 2018, 445, 186-196.	6.1	8
70	Electrostatically assembled Si-Al <sub>2</sub> O <sub>3</sub> composite particles for direct selective laser sintering. Advanced Powder Technology, 2021, 32, 2074-2084.	4.1	8
71	Solution Processing via Dynamic Sulfide Radical Anions for Sulfide Solid Electrolytes. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	8
72	Effects of Various Additives during Hot Water Treatment on the Formation of Alumina Thin Films for Superhydrophobic Surfaces. Journal of Adhesion Science and Technology, 2008, 22, 387-394.	2.6	7

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73	Sol-gel template synthesis of BaTiO <sub>3</sub> films with nano-periodic structures. <i>Materials Letters</i> , 2018, 227, 120-123.	2.6	7
74	Ag@TiO <sub>2</sub> Nanowires-Loaded Dye-Sensitized Solar Cells and Their Effect on the Various Performance Parameters of DSSCs. <i>Journal of the Electrochemical Society</i> , 2018, 165, H500-H509.	2.9	7
75	Proton-Conductive Composites Composed of Phosphoric Acid-Doped Silica Gel and Organic Polymers with Sulfo Groups.. <i>Journal of the Ceramic Society of Japan</i> , 2000, 108, 45-50.	1.3	6
76	Formation mechanism of titania nanosheet crytallites on silica-titania gel films by vibration hot-water treatment. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009, 161, 170-174.	3.5	6
77	Mechanical properties comparison of phenylsilsesquioxane-methylsilsesquioxane hybrid films by indentation. <i>Journal of the Ceramic Society of Japan</i> , 2011, 119, 490-493.	1.1	6
78	Influence of UV irradiation on mechanical properties and structures of sol-gel-derived vinylsilsesquioxane films. <i>Journal of the Ceramic Society of Japan</i> , 2012, 120, 442-445.	1.1	6
79	Fabrication of convex-shaped polybenzylsilsesquioxane micropatterns by the electrophoretic sol-gel deposition process using indium tin oxide substrates with a hydrophobic-hydrophilic-patterned surface. <i>Journal of Sol-Gel Science and Technology</i> , 2007, 43, 85-91.	2.4	5
80	Multiferroic nanocomposite fabrication via liquid phase using anodic alumina template. <i>Science and Technology of Advanced Materials</i> , 2018, 19, 535-542.	6.1	5
81	Structural, Thermal and Electrochemical studies of Sm substituted CrFeO <sub>3</sub> Nano-Pervoskites. <i>Journal of Alloys and Compounds</i> , 2021, 870, 159420.	5.5	5
82	Synthesis of 3Li <sub>2</sub> S-1P <sub>2</sub> S <sub>5</sub> -xLiI solid electrolytes by liquid-phase shaking method for all-solid-state Li metal batteries. <i>Journal of Sol-Gel Science and Technology</i> , 2022, 101, 16-23.	2.4	5
83	Texture development of surface-modified SiC prepared by EPD in a strong magnetic field. <i>Journal of the Ceramic Society of Japan</i> , 2011, 119, 667-671.	1.1	4
84	Effect of annealing temperature on the performance of ZnO thin film-based dye sensitized solar cell. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	4
85	Formation of Fe-embedded graphitic carbon network composites as anode materials for rechargeable Fe-air batteries. <i>Energy Storage</i> , 2020, 2, e196.	4.3	4
86	Ionic Conduction and Electric Modulus in Li <sub>2</sub> S-CaS and Ca <sub>2</sub> X <sub>2</sub> (X = F, Cl, Br, and I) Nanocomposites. <i>Electrochemistry</i> , 2022, 90, 067005-067005.	1.4	4
87	Influences of Preparation Conditions of Sols on Hardening Behaviors of Silica Gel Films for Micro-Patterning.. <i>Journal of the Ceramic Society of Japan</i> , 2000, 108, 604-606.	1.3	3
88	Application of Protonic Acid-Doped Silica Gels to Electric Double-Layer Capacitors. <i>Journal of Sol-Gel Science and Technology</i> , 2000, 19, 581-584.	2.4	3
89	Rapid Nucleation of Reduced Graphene Oxide-Supported Palladium Electrocatalysts for Methanol Oxidation Reaction. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 7236-7243.	0.9	3
90	Anhydrous proton conductive xCHS-(1-x)WSiA composites prepared via liquid-phase shaking. <i>Solid State Ionics</i> , 2019, 337, 1-6.	2.7	3

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91	Preparation of Ca <sub>2</sub> -Doped Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> by Liquid-Phase Synthesis and Its Application in an All-Solid-State Battery with a Graphite Anode. <i>Energy &amp; Fuels</i> , 2022, 36, 4577-4584.	5.1	3
92	High Ionic Conductivity with Improved Lithium Stability of CaS- and Ca <sub>2</sub> -Doped Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> Solid Electrolytes Synthesized by Liquid-Phase Synthesis. <i>ACS Omega</i> , 2022, 7, 16561-16567.	3.5	3
93	Fuel-free low-temperature self-combustion synthesis and characterization of praseodymium-substituted bismuth titanate ceramics. <i>Journal of the Ceramic Society of Japan</i> , 2012, 120, 58-63.	1.1	2
94	Functionalities and modification of sol-gel derived SiO <sub>2</sub> /TiO <sub>2</sub> systems for advanced coatings and powders. <i>Journal of the Ceramic Society of Japan</i> , 2022, 130, 143-162.	1.1	2
95	Li <sub>4</sub> SiO <sub>4</sub> Doped-Li <sub>7</sub> P <sub>2</sub> S <sub>8</sub> solid electrolytes with high lithium stability synthesised using liquid-phase shaking. <i>RSC Advances</i> , 2022, 12, 7469-7474.	3.6	2
96	Li <sub>7</sub> P <sub>2</sub> S <sub>8</sub> solid electrolytes synthesized by liquid-phase synthesis with improved heat treatment process. <i>Journal of the Ceramic Society of Japan</i> , 2022, 130, 299-302.	1.1	2
97	Photoredox behavior of methylviologen doped in silica gel matrices. <i>Journal of Materials Chemistry</i> , 2000, 10, 2765-2768.	6.7	1
98	A Wettability Tunable Surface of Nafion <sup>®</sup> with Controlling the Flip-Flop Property by DC Applied Voltage. <i>Key Engineering Materials</i> , 2014, 616, 77-81.	0.4	1
99	Estimation of interfacial proton conductivity by effective media approximation for sheet-like composite electrolyte prepared from poly(2-acrylamido-2-methyl-1-propanesulfonic acid)-deposited core-shell particles. <i>Journal of the Ceramic Society of Japan</i> , 2011, 119, 845-849.	1.1	0
100	Characterizations and photoelectrochemical properties of Fe <sub>2</sub> O <sub>3</sub> and ZrO <sub>2</sub> nanotubes formed by anodic oxidation process. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	0
101	An Electrospun Nanofibrous Sensor Based on a Porous (Cr/Zn) Slat's Oxide for Voltammetric Detection of Ezetimibe Drug in Real Samples. <i>Electroanalysis</i> , 2021, 33, 2128.	2.9	0
102	Fabrication and Electrochemical Characterization of an All-solid-state Battery with an Anti-perovskite Electrode Material (Li <sub>2</sub> Fe)SO. <i>Chemistry Letters</i> , 2022, 51, 690-692.	1.3	0