Patrick Ndungu

List of Publications by Year
in descending order

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115	2,795	186254	214788
papers	citations	28 h-index	47 g-index

116	116	116	3818
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Environmental Scanning Electron Microscopy Study of Water in Carbon Nanopipes. Nano Letters, 2004, 4, 989-993.	9.1	202
2	Pharmaceutical residues in water and sediment of Msunduzi River, KwaZulu-Natal, South Africa. Chemosphere, 2015, 134, 133-140.	8.2	189
3	Physicochemical Properties of Oil-Based Nanofluids Containing Hybrid Structures of Silver Nanoparticles Supported on Silica. Industrial & Engineering Chemistry Research, 2011, 50, 3071-3077.	3.7	126
4	Isotherm and kinetic investigations on the adsorption of organophosphorus pesticides on graphene oxide based silica coated magnetic nanoparticles functionalized with 2-phenylethylamine. Journal of Environmental Chemical Engineering, 2018, 6, 1333-1346.	6.7	115
5	Occurrence of selected pharmaceuticals in water and sediment of Umgeni River, KwaZulu-Natal, South Africa. Environmental Science and Pollution Research, 2015, 22, 10298-10308.	5.3	107
6	Detection and quantification of acidic drug residues in South African surface water using gas chromatography-mass spectrometry. Chemosphere, 2017, 168, 1042-1050.	8.2	91
7	A review on carbon nanotube/polymer composites for organic solar cells. International Journal of Energy Research, 2014, 38, 1635-1653.	4.5	84
8	Investigation of hydrogen storage capacity of multi-walled carbon nanotubes deposited with Pd or V. International Journal of Hydrogen Energy, 2009, 34, 6669-6675.	7.1	72
9	Theoretical and experimental adsorption studies of phenol and crystal violet dye on carbon nanotube functionalized with deep eutectic solvent. Journal of Molecular Liquids, 2019, 288, 110895.	4.9	60
10	Pyrrolic nitrogen-doped carbon nanotubes: physicochemical properties, interactions with Pd and their role in the selective hydrogenation of nitrobenzophenone. RSC Advances, 2015, 5, 109-122.	3.6	59
11	Usage of carbon nanotubes as platinum and nickel catalyst support in dehydrogenation reactions. Catalysis Today, 2013, 217, 65-75.	4.4	56
12	Theoretical and experimental adsorption studies of sulfamethoxazole and ketoprofen on synthesized ionic liquids modified CNTs. Ecotoxicology and Environmental Safety, 2018, 161, 542-552.	6.0	55
13	Photo-Catalytic Properties of TiO2 Supported on MWCNTs, SBA-15 and Silica-Coated MWCNTs Nanocomposites. Nanoscale Research Letters, 2015, 10, 427.	5.7	54
14	Photo-catalytic activity of titanium dioxide carbon nanotube nano-composites modified with silver and palladium nanoparticles. Applied Catalysis B: Environmental, 2014, 156-157, 273-283.	20.2	52
15	Performance evaluation of surfactant modified kaolin clay in As(III) and As(V) adsorption from groundwater: adsorption kinetics, isotherms and thermodynamics. Heliyon, 2019, 5, e02756.	3.2	49
16	Photocatalytic degradation of 4-chloro-2-methylphenoxyacetic acid using W-doped TiO2. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 312, 96-106.	3.9	46
17	Sol-gel synthesis of Mn Ni1Co2O4 spinel phase materials: Structural, electronic, and magnetic properties. Journal of Alloys and Compounds, 2018, 742, 78-89.	5.5	40
18	Deep eutectic solvent as an efficient modifier of low-cost adsorbent for the removal of pharmaceuticals and dye. Environmental Research, 2019, 179, 108837.	7.5	39

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19	Brief bibliometric analysis of â€œionic liquidâ€•applications and its review as a substitute for common adsorbent modifier for the adsorption of organic pollutants. Environmental Research, 2019, 175, 34-51.	7.5	39
20	Guiding water into carbon nanopipes with the aid of bipolar electrochemistry. Microfluidics and Nanofluidics, 2005, 1, 284-288.	2.2	36
21	Effect of surfactant concentration on active species generation and photocatalytic properties of TiO2. Applied Catalysis B: Environmental, 2015, 176-177, 288-297.	20.2	36
22	Multiwalled carbon nanotube-titania nanocomposites: Understanding nano-structural parameters and functionality in dye-sensitized solar cells. South African Journal of Chemistry, 2015, 68, .	0.6	36
23	Noncovalent Graphene Oxide Functionalized with Ionic Liquid: Theoretical, Isotherm, Kinetics, and Regeneration Studies on the Adsorption of Pharmaceuticals. Industrial & Engineering Chemistry Research, 2020, 59, 4945-4957.	3.7	35
24	Synthesis of mesoporous Mn/TiO2 nanocomposites and investigating the photocatalytic properties in aqueous systems. Environmental Science and Pollution Research, 2015, 22, 211-222.	5.3	33
25	Physicochemical characteristics of acid mine drainage, simultaneous remediation and use as feedstock for value added products. Journal of Environmental Chemical Engineering, 2019, 7, 103097.	6.7	32
26	Contactless Tipâ€Selective Electrodeposition of Palladium onto Carbon Nanotubes and Nanofibers. Fullerenes Nanotubes and Carbon Nanostructures, 2005, 13, 227-237.	2.1	29
27	The influence of carbon based supports and the role of synthesis procedures on the formation of platinum and platinum-ruthenium clusters and nanoparticles for the development of highly active fuel cell catalysts. International Journal of Hydrogen Energy, 2012, 37, 9459-9469.	7.1	28
28	Occurrence and significance of polychlorinated biphenyls in water, sediment pore water and surface sediments of Umgeni River, KwaZulu-Natal, South Africa. Environmental Monitoring and Assessment, 2015, 187, 568.	2.7	28
29	Synthesis and characterization of deep eutectic solvent functionalized CNT/ZnCo2O4 nanostructure: Kinetics, isotherm and regenerative studies on Eosin Y adsorption. Journal of Environmental Chemical Engineering, 2019, 7, 102877.	6.7	28
30	Enhanced As(III) and As(V) Adsorption From Aqueous Solution by a Clay Based Hybrid Sorbent. Frontiers in Chemistry, 2019, 7, 913.	3.6	27
31	Synthesis of porous polymer-based metalâ€“organic frameworks monolithic hybrid composite for hydrogen storage application. Journal of Materials Science, 2019, 54, 7078-7086.	3.7	25
32	Carbon nanomaterials synthesized using liquid petroleum gas: Analysis toward applications in hydrogen storage and production. International Journal of Hydrogen Energy, 2008, 33, 3102-3106.	7.1	24
33	Effect of graphite/sodium nitrate ratio and reaction time on the physicochemical properties of graphene oxide. New Carbon Materials, 2017, 32, 174-187.	6.1	24
34	Polymer-Based Shaping Strategy for Zeolite Templated Carbons (ZTC) and Their Metal Organic Framework (MOF) Composites for Improved Hydrogen Storage Properties. Frontiers in Chemistry, 2019, 7, 864.	3.6	24
35	Nitrogen-Doped Carbon Nanotubes Synthesised by Pyrolysis of (4-{[(pyridine-4-yl)methylidene]amino}phenyl)ferrocene. Journal of Nanomaterials, 2013, 2013, 1-7.	2.7	22
36	Quaternized poly(2.6 dimethylâ€1.4 phenylene oxide)/polysulfone blend composite membrane doped with <scp>Z</scp>n<scp>O</scp>â€nanoparticles for alkaline fuel cells. Journal of Applied Polymer Science, 2018, 135, 45959.	2.6	22

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37	Synthesis of carbon nanostructured materials using LPG. Microporous and Mesoporous Materials, 2008, 116, 593-600.	4.4	21
38	Effect of boron concentration on physicochemical properties of boron-doped carbon nanotubes. Materials Chemistry and Physics, 2015, 153, 323-332.	4.0	21
39	Pulsed Bipolar Electrodeposition of Palladium onto Graphite Powder. Journal of the Electrochemical Society, 2001, 148, C647.	2.9	20
40	Tuning the nitrogen content and surface properties of nitrogen-doped carbon nanotubes synthesized using a nitrogen-containing ferrocenyl derivative and ethylbenzoate. Journal of Materials Science, 2015, 50, 1187-1200.	3.7	19
41	Evaluation of organochlorinated pesticide (OCP) residues in soil, sediment and water from the Msunduzi River in South Africa. Environmental Earth Sciences, 2019, 78, 1.	2.7	19
42	Hydrothermally treated aluminosilicate clay (HTAC) for remediation of fluoride and pathogens from water: Adsorbent characterization and adsorption modelling. Water Resources and Industry, 2021, 25, 100144.	3.9	19
43	Method Development for the Determination of Diallyldimethylammonium Chloride at Trace Levels by Epoxidation Process. Water, Air, and Soil Pollution, 2013, 224, 1638.	2.4	18
44	A facile approach towards increasing the nitrogen-content in nitrogen-doped carbon nanotubes via halogenated catalysts. Journal of Solid State Chemistry, 2016, 235, 202-211.	2.9	18
45	The physicochemical properties and capacitive functionality of pyrrolic- and pyridinic-nitrogen, and boron-doped reduced graphene oxide. Electrochimica Acta, 2017, 258, 467-476.	5.2	18
46	The physical and electrochemical properties of nitrogen-doped carbon nanotube- and reduced graphene oxide-titania nanocomposites. Materials Chemistry and Physics, 2018, 213, 102-112.	4.0	18
47	Quaternized poly (2.6 dimethyl â€“ 1.4 phenylene oxide)/Polysulfone anion exchange membrane reinforced with graphene oxide for methanol alkaline fuel cell application. Journal of Polymer Research, 2018, 25, 1.	2.4	18
48	The effect of pyridinic- and pyrrolic-nitrogen in nitrogen-doped carbon nanotubes used as support for Pd-catalyzed nitroarene reduction: an experimental and theoretical study. Journal of Materials Science, 2017, 52, 10751-10765.	3.7	17
49	Oxygen-modified multiwalled carbon nanotubes: physicochemical properties and capacitor functionality. International Journal of Energy Research, 2017, 41, 1182-1201.	4.5	16
50	The generation of charge carriers in semi conductors â€“ A theoretical study. Chemical Physics Letters, 2017, 678, 167-176.	2.6	16
51	Synthesis and characterization of Ce 0.6 Sr 0.4 Fe 0.8 Co 0.2 O 3â€“ Î´ perovskite material: Potential cathode material for low temperature SOFCs. Journal of Rare Earths, 2017, 35, 389-397.	4.8	16
52	Assessment of nonsteroidal anti-inflammatory drugs by ultrasonic-assisted extraction and GC-MS in Mgeni and Msunduzi river sediments, KwaZulu-Natal, South Africa. Environmental Science and Pollution Research, 2017, 24, 20015-20028.	5.3	16
53	Mn substituted Mn_xZn_{1â^'x}Co₂O₄ oxides synthesized by co-precipitation; effect of doping on the structural, electronic and magnetic properties. RSC Advances, 2018, 8, 39837-39848.	3.6	16
54	Conversion of residue biomass into value added carbon materials: utilisation of sugarcane bagasse and ionic liquids. Journal of Materials Science, 2019, 54, 12476-12487.	3.7	16

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55	Synthesis of Carbon Nanomaterials from Biomass Utilizing Ionic Liquids for Potential Application in Solar Energy Conversion and Storage. Materials, 2020, 13, 3945.	2.9	16
56	Bulk Heterojunction Solar Cell with Nitrogen-Doped Carbon Nanotubes in the Active Layer: Effect of Nanocomposite Synthesis Technique on Photovoltaic Properties. Materials, 2015, 8, 2415-2432.	2.9	15
57	Ultrasound Assisted Adsorptive Removal of Cr, Cu, Al, Ba, Zn, Ni, Mn, Co and Ti from Seawater Using Fe2O3-SiO2-PAN Nanocomposite: Equilibrium Kinetics. Journal of Marine Science and Engineering, 2019, 7, 133.	2.6	15
58	Synthesis of zeolites from coal fly ash: application of a statistical experimental design. Research on Chemical Intermediates, 2012, 38, 471-486.	2.7	14
59	Gold nanoparticles for the quantification of very low levels of poly-diallyldimethylammonium chloride in river water. Analytical Methods, 2014, 6, 6963.	2.7	14
60	Quantitative analyses of selected polychlorinated biphenyl (PCB) congeners in water, soil, and sediment during winter and spring seasons from Msunduzi River, South Africa. Environmental Monitoring and Assessment, 2018, 190, 621.	2.7	14
61	Uptake of As(V) from Groundwater Using Fe-Mn Oxides Modified Kaolin Clay: Physicochemical Characterization and Adsorption Data Modeling. Water (Switzerland), 2019, 11, 1245.	2.7	14
62	Chemical Vapour Deposition of MWCNT on Silica Coated Fe₃O₄ and Use of Response Surface Methodology for Optimizing the Extraction of Organophosphorus Pesticides from Water. International Journal of Analytical Chemistry, 2019, 2019, 1-16.	1.0	13
63	Target, Suspect and Non-Target Screening of Silylated Derivatives of Polar Compounds Based on Single Ion Monitoring GC-MS. International Journal of Environmental Research and Public Health, 2019, 16, 4022.	2.6	13
64	Hydrogeochemical characteristics of arsenic rich groundwater in Greater Giyani Municipality, Limpopo Province, South Africa. Groundwater for Sustainable Development, 2020, 10, 100336.	4.6	13
65	Ionic self-assembly of porphyrin nanostructures on the surface of charge-altered track-etched membranes. Journal of Porphyrins and Phthalocyanines, 2010, 14, 446-451.	0.8	12
66	Immobilized Fe (III)-doped titanium dioxide for photodegradation of dissolved organic compounds in water. Environmental Science and Pollution Research, 2013, 20, 6028-6038.	5.3	12
67	Oxyhalogenâ€“Sulfur Chemistry: Kinetics and Mechanism of Oxidation of Captopril by Acidified Bromate and Aqueous Bromine. Journal of Physical Chemistry A, 2013, 117, 2704-2717.	2.5	12
68	Mechanochemical synthesis and spectroscopic properties of 1,1â€²-ferrocenyldiacrylonitriles: the effect of para-substituents. Journal of Coordination Chemistry, 2014, 67, 1905-1922.	2.2	12
69	Synthesis and characterization of novel Ce 0.8 Sm 0.2 Fe 0.9 Ir 0.03 Co 0.07 O 3â^' Î´ perovskite material and possible application as a cathode for lowâ€“intermediate temperature SOFCs. Materials Research Bulletin, 2015, 68, 100-108.	5.2	12
70	Recent advances in titanium dioxide/graphene photocatalyst materials as potentials of energy generation. Bulletin of Materials Science, 2018, 41, 1.	1.7	12
71	Mechanochemically Activated Aluminosilicate Clay Soils and their Application for Defluoridation and Pathogen Removal from Groundwater. International Journal of Environmental Research and Public Health, 2019, 16, 654.	2.6	12
72	Low temperature synthesis of multiwalled carbon nanotubes and incorporation into an organic solar cell. Journal of Experimental Nanoscience, 2017, 12, 363-383.	2.4	11

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73	Effect of Inclusion of MOF-Polymer Composite onto a Carbon Foam Material for Hydrogen Storage Application. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 80-88.	3.7	11
74	Mn-Ni-Co-O Spinel Oxides towards Oxygen Reduction Reaction in Alkaline Medium: Mn0.5Ni0.5Co2O4/C Synergism and Cooperation. Catalysts, 2021, 11, 1059.	3.5	11
75	Nickel Oxide-Carbon Soot-Cellulose Acetate Nanocomposite for the Detection of Mesitylene Vapour: Investigating the Sensing Mechanism Using an LCR Meter Coupled to an FTIR Spectrometer. Nanomaterials, 2022, 12, 727.	4.1	11
76	Current Applications of Magnetic Nanomaterials for Extraction of Mycotoxins, Pesticides, and Pharmaceuticals in Food Commodities. Molecules, 2021, 26, 4284.	3.8	10
77	Combustion Characterisation of Bituminous Coal and Pinus Sawdust Blends by Use of Thermo-Gravimetric Analysis. Energies, 2021, 14, 7547.	3.1	10
78	Hall Measurements on Carbon Nanotube Paper Modified With Electroless Deposited Platinum. Nanoscale Research Letters, 2010, 5, 38-47.	5.7	9
79	Organic Solar Cells with Boron- or Nitrogen-Doped Carbon Nanotubes in the P3HTâ€‰:â€‰PCBM Photoactive Layer. Journal of Nanomaterials, 2016, 2016, 1-11.	2.7	9
80	Removal of As(III) from Synthetic Groundwater Using Fe-Mn Bimetal Modified Kaolin Clay: Adsorption Kinetics, Isotherm and Thermodynamics Studies. Environmental Processes, 2019, 6, 1005-1018.	3.5	9
81	Carbon Encapsulated Ternary Mnâ˜Niâ˜Co Oxide Nanoparticles as Electrode Materials for Energy Storage Applications. Electroanalysis, 2020, 32, 2926-2935.	2.9	9
82	Challenges of 3D printing in LIB electrodes: Emphasis on material-design properties, and performance of 3D printed Si-based LIB electrodes. Journal of Power Sources, 2022, 543, 231840.	7.8	9
83	Simulation from the first principal theory on the effect of supporting silica on graphene and the new composite material. Chemical Physics Letters, 2017, 680, 69-77.	2.6	7
84	Evaluation of the adsorptive properties of locally available alumino-silicate clay in As(III) and As(V) remediation from groundwater. Physics and Chemistry of the Earth, 2019, 112, 28-35.	2.9	7
85	Activated Hordeum vulgare L. dust as carbon paste electrode modifier for the sensitive electrochemical detection of Cd2+, Pb2+ and Hg2+ions. International Journal of Environmental Analytical Chemistry, 2020, 100, 1429-1445.	3.3	7
86	Simultaneous removal of Na, Ca, K and Mg from synthetic brine and seawater using Fe2O3-SiO2 mixed oxide nanostructures: kinetics. , 0, 104, 206-216.		7
87	A Novel BiOCl Based Nanocomposite Membrane for Water Desalination. Membranes, 2022, 12, 505.	3.0	7
88	Some perspectives on nitrogen-doped carbon nanotube synthesis from acetonitrile and N,Nâ€²-dimethylformamide mixtures. Materials Chemistry and Physics, 2017, 199, 435-453.	4.0	6
89	Quaternized poly (2,6 dimethylâ€“1,4 phenylene oxide)/polysulfone blended anion exchange membrane for alkaline fuel cells application. Materials Today: Proceedings, 2018, 5, 10496-10504.	1.8	6
90	Ionic liquids and cellulose: Innovative feedstock for synthesis of carbon nanostructured material. Materials Chemistry and Physics, 2019, 234, 201-209.	4.0	6

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91	Surface modifications of carbon nanotubes towards tailored electrochemical characteristics. Journal of Materials Science: Materials in Electronics, 2021, 32, 27923.	2.2	5
92	Evaluation of Novel Nanophase Ce_{0.8}Sr_{0.2}Fe_{0.9}Ir_{0.1}O<sub>3-Î´</ as Cathode Material for Low Temperature SOFC. Journal of Nano Research, 0, 44, 35-50.		
93	Synthesis and characterization of mesoporous titania using a synthetic (Pluronic P123) and a natural (Gum Arabic) templating agent. Materials Today: Proceedings, 2018, 5, 10585-10591.	1.8	4
94	Effects of Ionic Liquid and Biomass Sources on Carbon Nanotube Physical and Electrochemical Properties. Sustainability, 2021, 13, 2977.	3.2	4
95	Green Synthesis of Ag, Au and Auâ€“Ag Bimetallic Nanoparticles Using Chrysophyllum albidum Aqueous Extract for Catalytic Application in Electro-Oxidation of Methanol. Journal of Bionanoscience, 2016, 10, 216-222.	0.4	4
96	Adsorptive removal of major and trace metal ions from synthetic saline and real seawater samples onto magnetic zeolite nanocomposite: application of multicomponent fixed-bed column adsorption. Journal of the Iranian Chemical Society, 2022, 19, 2949-2961.	2.2	4
97	Prediction of electronic properties of novel ZnSâ€“ZnO-recycled expanded polystyrene nanocomposites by DFT. Heliyon, 2022, 8, e08903.	3.2	4
98	Risk Assessment of Personal Care Products, Pharmaceuticals, and Stimulants in Mgeni and Msunduzi Rivers, KwaZulu-Natal, South Africa. Frontiers in Water, 2022, 4, .	2.3	4
99	Electrical and Proton Conducting Polymer Based Composite Electrodes Incorporating Fuel Cell Catalysts: Screen Printed Systems Analysed Using Hall Measurements. Materials Science Forum, 2010, 657, 116-142.	0.3	3
100	Synthesis highly active platinum tri-metallic electrocatalysts using "one-step" organometallic chemical vapour deposition technique for methanol oxidation process. IOP Conference Series: Materials Science and Engineering, 2012, 38, 012031.	0.6	3
101	Synthesis, structural characterization, and magnetic properties of mixed ternary spinel-type Mn-Ni-Co oxides. Materials Today: Proceedings, 2018, 5, 10488-10495.	1.8	3
102	Physical chemical properties of Ce08Sm02IryCo1-yO3-Ã´ (y = 0.03-0.04) and preliminary testing as cathode material for low-temperature SOFC. South African Journal of Chemistry, 2017, 70, .	0.6	3
103	pH based supercapacitors: Achieving high capacitance in gold metallized regenerated cellulose amide supercapacitor electrodes by pH gradient. Energy Reports, 2022, 8, 3415-3423.	5.1	3
104	Site Selective Electrodeposition of Metals and Conductive Polymer Nano-Structures on Isolated Carbon Nanopipes Using Electric Fields. Materials Research Society Symposia Proceedings, 2004, 818, 148.	0.1	2
105	Preconcentration and spectrophotometric determination of polyDADMAC in treated water by in situ co-precipitation with naphthalene. Physics and Chemistry of the Earth, 2014, 72-75, 54-60.	2.9	2
106	Charge extracting buffer layers in bulkheterojunction organic solar cell. Journal of Materials Science: Materials in Electronics, 2015, 26, 9891-9897.	2.2	2
107	Effect of Surfactants on the Physico-Chemical Characteristics of IrO/Ce0.8Sm0.2O2-Î´Nanocomposite for SOFC Application. ECS Transactions, 2017, 78, 783-793.	0.5	2
108	Micellization of a starchâ€“poly(1,4-butylene succinate) nano-hybrid for enhanced energy storage. RSC Advances, 2021, 11, 11745-11759.	3.6	2

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109	The double-stranded ladder-like structure of poly[[bis(Î¼₂-acetato-Îº²O:Oâ€²)bis(acetato-ÎºO)bis(Î¼-4,4â€²-bipyridine-Îº²</s	0.4	1
	4-nitrophenol disolvate tetrahydrate]. Acta Crystallographica Section C: Crystal Structure Communications, 2013, 69, 1100-1103.		
110	Challenges in the Assembly of Membrane Electrode Assemblies for Regenerative Fuel Cells using Pt/C, Iridium Black, and IrO2 Catalysts. , 2013, , 191-216.		1
111	Synthesis, Characterization, and Application of TiO2 Nanoparticles â€“ Effect of pH Adjusted Solvent. Journal of Advanced Oxidation Technologies, 2015, 18, .	0.5	1
112	Synthesis of 4-aminoantipyrine Schiff bases and their antimicrobial activities. Journal of Chinese Pharmaceutical Sciences, 2018, 27, 753-766.	0.1	1
113	Physical chemical properties of polyimide palladium nano - composite membranes. , 2011, , .		0
114	Physico-Chemical Characterisation of Ce0.7Sr0.3Fe0.9Ir0.04Co0.06O3-Î´(CSFIC) Cathode Material for Application in Low Temperature SOFCs. ECS Transactions, 2017, 78, 521-532.	0.5	0
115	Reverse Micellization of Starch- Poly (1,4-butylene succinate) Nanohybrid for Enhanced Energy Storage as Supercapacitor Electrodes. ECS Meeting Abstracts, 2021, MA2021-02, 452-452.	0.0	0