Ilie Hanzu

List of Publications by Year
in descending order

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62 papers	2,115 citations	257450 24 h-index	233421 45 g-index
65 all docs	65 docs citations	65 times ranked	2970 citing authors

#	Article	IF	Citations
1	A pyrrolopyridazinedione-based copolymer for fullerene-free organic solar cells. New Journal of Chemistry, 2021, 45, 1001-1009.	2.8	3
2	High Li⁺ and Na⁺ Conductivity in New Hybrid Solid Electrolytes based on the Porous MILâ€121 Metal Organic Framework. Advanced Energy Materials, 2021, 11, 2003542.	19.5	24
3	Hybrid Solidâ€Electrolytes: High Li⁺ and Na⁺ Conductivity in New Hybrid Solid Electrolytes based on the Porous MILâ€121 Metal Organic Framework (Adv. Energy Mater. 16/2021). Advanced Energy Materials, 2021, 11, 2170060.	19.5	1
4	Conductorâ€“Insulator Interfaces in Solid Electrolytes: A Design Strategy to Enhance Li-Ion Dynamics in Nanoconfined LiBH₄/Al₂O₃. Journal of Physical Chemistry C, 2021, 125, 15052-15060.	3.1	14
5	Analysis and Investigation of Thermal Runaway Propagation for a Mechanically Constrained Lithium-Ion Pouch Cell Module. Batteries, 2021, 7, 49.	4.5	11
6	Insulator:conductor interfacial regions â€” Li ion dynamics in the nanocrystalline dispersed ionic conductor LiF:TiO2. Solid State Ionics, 2021, 369, 115726.	2.7	7
7	The Origins of Ion Conductivity in MOF-Ionic Liquids Hybrid Solid Electrolytes. Frontiers in Energy Research, 2021, 9, .	2.3	8
8	Safety assessment of electrically cycled cells at high temperatures under mechanical crush loads. ETransportation, 2020, 6, 100087.	14.8	29
9	New Solar Cellâ€“Battery Hybrid Energy System: Integrating Organic Photovoltaics with Li-Ion and Na-Ion Technologies. ACS Sustainable Chemistry and Engineering, 2020, 8, 19155-19168.	6.7	14
10	Influence of defects on ionic transport in LiTaO3 â€“ A study using EXAFS and positron annihilation lifetime spectroscopy. Solid State Ionics, 2020, 352, 115355.	2.7	8
11	The Electronic Conductivity of Single Crystalline Gaâ€Stabilized Cubic Li₇La₃Zr₂O₁₂: A Technologically Relevant Parameter for Allâ€Solidâ€State Batteries. Advanced Materials Interfaces, 2020, 7, 2000450.	3.7	33
12	Evaluation of carboxylic, phosphonic, and sulfonic acid protogenic moieties on tunable poly(metaâ€phenylene oxide) ionomer scaffolds. Journal of Polymer Science Part A, 2019, 57, 2209-2213.	2.3	5
13	Redox processes in sodium vanadium phosphate cathodes â€“ insights from operando magnetometry. Physical Chemistry Chemical Physics, 2019, 21, 20151-20155.	2.8	8
14	Spatial confinement â€“ rapid 2D F^{â^'}diffusion in micro- and nanocrystalline RbSn₂F₅. Physical Chemistry Chemical Physics, 2019, 21, 1872-1883.	2.8	15
15	Synthesis of a tetrazineâ€“quaterthiophene copolymer and its optical, structural and photovoltaic properties. Journal of Materials Science, 2019, 54, 10065-10076.	3.7	8
16	Glass in Two Forms: Heterogeneous Electrical Relaxation in Nanoglassy Petalite. Journal of Physical Chemistry C, 2019, 123, 10153-10162.	3.1	14
17	Electrochemical properties of arylsilanes. Electrochemistry Communications, 2019, 102, 13-18.	4.7	1
18	Substitutional disorder: structure and ion dynamics of the argyrodites Li₆PS₅Cl, Li₆PS₅Br and Li₆PS₅I. Physical Chemistry Chemical Physics, 2019, 21, 8489-8507.	2.8	133

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19	Fluoride-Ion Batteries: On the Electrochemical Stability of Nanocrystalline La0.9Ba0.1F2.9 against Metal Electrodes. Nanomaterials, 2019, 9, 1517.	4.1	11
20	Analytical Dissection of an Automotive Li-Ion Pouch Cell. Batteries, 2019, 5, 67.	4.5	26
21	Heterogeneous F anion transport, local dynamics and electrochemical stability of nanocrystalline La1â^'Ba F3â^'. Energy Storage Materials, 2019, 16, 481-490.	18.0	20
22	Bulk and grain-boundary ionic conductivity in sodium zirconophosphosilicate Na3Zr2(SiO4)2PO4 (NASICON). Chemical Physics Letters, 2018, 701, 147-150.	2.6	37
23	Ion dynamics in a new class of materials: nanoglassy lithium alumosilicates. Materials Research Express, 2018, 5, 035202.	1.6	5
24	Fluorine Translational Anion Dynamics in Nanocrystalline Ceramics: SrF2-YF3 Solid Solutions. Crystals, 2018, 8, 122.	2.2	10
25	Untangling the Structure and Dynamics of Lithium-Rich Anti-Perovskites Envisaged as Solid Electrolytes for Batteries. Chemistry of Materials, 2018, 30, 8134-8144.	6.7	70
26	Nuclear Spin Relaxation in Nanocrystalline Î²-Li₃PS₄ Reveals Low-Dimensional Li Diffusion in an Isotropic Matrix. Chemistry of Materials, 2018, 30, 7575-7586.	6.7	29
27	Fast Na ion transport triggered by rapid ion exchange on local length scales. Scientific Reports, 2018, 8, 11970.	3.3	22
28	Electronic and Ionic Conductivity of Nanocrystalline Sodium Peroxide. ECS Meeting Abstracts, 2018, , .	0.0	0
29	Towards a Solar-Cell Battery Hybrid System. ECS Meeting Abstracts, 2018, , .	0.0	0
30	Go in and Go out â€" Change in Local Structure and Diffusivity in Monoclinic Li3+X V2(PO4)3 upon Li Insertion and Extraction. ECS Meeting Abstracts, 2018, , .	0.0	0
31	Solid Electrolytes: Extremely Fast Charge Carriers in Garnetâ€Type Li₆La₃ZrTaO₁₂ Single Crystals. Annalen Der Physik, 2017, 529, 1700140.	2.4	60
32	Aging of Tesla's 18650 Lithium-Ion Cells: Correlating Solid-Electrolyte-Interphase Evolution with Fading in Capacity and Power. Journal of the Electrochemical Society, 2017, 164, A3503-A3510.	2.9	38
33	Lithium barrier materials for on-chip Si-based microbatteries. Journal of Materials Science: Materials in Electronics, 2017, 28, 14605-14614.	2.2	10
34	Nanostructured Ceramics: Ionic Transport and Electrochemical Activity. Zeitschrift Fur Physikalische Chemie, 2017, 231, 1361-1405.	2.8	25
35	An Electrolyte for Reversible Cycling of Sodium Metal and Intercalation Compounds. ChemSusChem, 2017, 10, 401-408.	6.8	89
36	Partial electronic conductivity of nanocrystalline Na₂O₂. Materials Research Express, 2017, 4, 075508.	1.6	6

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37	Electrochemical Investigations on Arylsilicon and Aryltin Hydrides and Their Resulting Polymers. ECS Meeting Abstracts, 2017, , .	0.0	0
38	A Highly Concentrated Ether Electrolyte for Efficient Na-Ion Half Cells. ECS Meeting Abstracts, 2017, , .	0.0	0
39	Nanostructured TiO2 Materials for New-Generation Li-Ion Batteries. , 2017, , 171-221.		0
40	Myth and Reality about the Origin of Inductive Loops in Impedance Spectra of Lithium-Ion Electrodes â€" A Critical Experimental Approach. Electrochimica Acta, 2016, 207, 218-223.	5.2	24
41	Electrochemical preparation of tinâ€"titania nanocomposite arrays. RSC Advances, 2016, 6, 98243-98247.	3.6	1
42	Interface Storage and Diffusion in Titania-Based Na-Ion Battery Negative Electrodes. ECS Meeting Abstracts, 2016, , .	0.0	0
43	Long-Cycle-Life Na-Ion Anodes Based on Amorphous Titania Nanotubesâ€"Interfaces and Diffusion. ACS Applied Materials & Interfaces, 2015, 7, 25757-25769.	8.0	25
44	Li ion dynamics in TiO₂anode materials with an ordered hierarchical pore structure â€" insights from ex situ NMR. Physical Chemistry Chemical Physics, 2014, 16, 1894-1901.	2.8	24
45	Order vs. disorderâ€"a huge increase in ionic conductivity of nanocrystalline LiAlO2 embedded in an amorphous-like matrix of lithium aluminate. Journal of Materials Chemistry A, 2014, 2, 20295-20306.	10.3	79
46	Short-range Li diffusion vs. long-range ionic conduction in nanocrystalline lithium peroxide Li2O2â€"the discharge product in lithium-air batteries. Energy and Environmental Science, 2014, 7, 2739-2752.	30.8	104
47	â€œIonic liquids-in-saltâ€•â€" a promising electrolyte concept for high-temperature lithium batteries?. Physical Chemistry Chemical Physics, 2014, 16, 12341-12349.	2.8	76
48	In situ study of electrochromic properties of self-assembled TiO2 nanotubes. Comptes Rendus Chimie, 2013, 16, 96-102.	0.5	8
49	Novel fabrication technologies of 1D TiO<SUB align="right">2 nanotubes, vertical tin and iron-based nanowires for Li-ion microbatteries. International Journal of Nanotechnology, 2012, 9, 260.	0.2	9
50	Nanostructured negative electrodes based on titania for Li-ion microbatteries. Journal of Materials Chemistry, 2011, 21, 9925.	6.7	103
51	Electrical and Point Defect Properties of TiO₂ Nanotubes Fabricated by Electrochemical Anodization. Journal of Physical Chemistry C, 2011, 115, 5989-5996.	3.1	64
52	Electrical and Proton Conduction Properties of Amorphous TiO₂ Nanotubes Fabricated by Electrochemical Anodization. ECS Transactions, 2011, 35, 21-31.	0.5	6
53	Nanostructured TiO2 Materials for New-Generation Li-Ion Batteries. , 2011, , 183-236.		0
54	Nanoarchitectured TiO₂/SnO: A Future Negative Electrode for High Power Density Li-Ion Microbatteries?. Chemistry of Materials, 2010, 22, 1926-1932.	6.7	107

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55	A novel architectured negative electrode based on titania nanotube and iron oxide nanowire composites for Li-ion microbatteries. Journal of Materials Chemistry, 2010, 20, 4041.	6.7	88
56	TiO2 nanotubes manufactured by anodization of Ti thin films for on-chip Li-ion 2D microbatteries. Electrochimica Acta, 2009, 54, 4262-4268.	5.2	137
57	Nanocomposite Electrode for Li-Ion Microbatteries Based on SnO on Nanotubular Titania Matrix. Electrochemical and Solid-State Letters, 2009, 12, A186.	2.2	37
58	Alternative Li-Ion Battery Electrode Based on Self-Organized Titania Nanotubes. Chemistry of Materials, 2009, 21, 63-67.	6.7	320
59	Mechanistic Study of Sn Electrodeposition on TiO₂ Nanotube Layers: Thermodynamics, Kinetics, Nucleation, and Growth Modes. Journal of Physical Chemistry C, 2009, 113, 20568-20575.	3.1	38
60	Electrochemical fabrication of tin nanowires: A short review. Comptes Rendus Chimie, 2008, 11, 995-1003.	0.5	31
61	Electrochemical fabrication of Sn nanowires on titania nanotube guide layers. Nanotechnology, 2008, 19, 205601.	2.6	38
62	Fast Na Ion Transport Triggered By Rapid Ion Exchange on Local Length Scales. SSRN Electronic Journal, 0, , .	0.4	1