Montse Casas-Cabanas

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6844514/publications.pdf

Version: 2024-02-01

92 papers	5,304 citations	94381 37 h-index	82499 72 g-index
97 all docs	97 docs citations	97 times ranked	6535 citing authors

#	Article	IF	Citations
1	Role of the voltage window on the capacity retention of P2-Na2/3[Fe1/2Mn1/2]O2 cathode material for rechargeable sodium-ion batteries. Communications Chemistry, 2022, 5, .	2.0	12
2	Quantification of Stacking Faults in <i>A</i>Ni_{<i>y</i>} (A = Rare Earth or Mg, <i>y</i> = 3.5) Tj ETQq0 0 0 rgBT /Overlock 1	3.2	4
3	The triphylite NaFe1-yMnyPO4 solid solution (0 â‰ y â‰ 1): Kinetic strain accommodation in NaxFe0.8Mn0.2PO4. Electrochimica Acta, 2022, 425, 140650.	2.6	7
4	Influence of Transition-Metal Order on the Reaction Mechanism of LNMO Cathode Spinel: An <i>Operando</i> X-ray Absorption Spectroscopy Study. Chemistry of Materials, 2022, 34, 6529-6540.	3.2	12
5	Are Polymerâ€Based Electrolytes Ready for Highâ€Voltage Lithium Battery Applications? An Overview of Degradation Mechanisms and Battery Performance. Advanced Energy Materials, 2022, 12, .	10.2	70
6	Circular Economy Insights: Sustainable Reuse of Aged Li-Ion LiFePO₄ Cathodes within Na-Ion Cells. ECS Meeting Abstracts, 2022, MA2022-01, 595-595.	0.0	0
7	Challenges of today for Na-based batteries of the future: From materials to cell metrics. Journal of Power Sources, 2021, 482, 228872.	4.0	169
8	Understanding the electrode â€" electrolyte interphase of high voltage positive electrode Na4Co3(PO4)2P2O7 for rechargeable sodium-ion batteries. Electrochimica Acta, 2021, 372, 137846.	2.6	14
9	Sustainable paths to a circular economy: reusing aged Li-ion FePO₄ cathodes within Na-ion cells. JPhys Materials, 2021, 4, 034002.	1.8	5
10	Composite Cathode for All Solid-State Lithium Batteries: A Gear up Towards Co-Sintering. ECS Meeting Abstracts, 2021, MA2021-01, 18-18.	0.0	0
11	Experimental Considerations for <i>Operando</i> Metalâ€Ion Battery Monitoring using Xâ€ray Techniques. Chemistry Methods, 2021, 1, 249-260.	1.8	14
12	Experimental Considerations for Operando Metalâ€Ion Battery Monitoring using Xâ€ray Techniques. Chemistry Methods, 2021, 1, 248-248.	1.8	1
13	Impact of Stacking Faults and Li Substitution in Li_{<i>x</i>}MnO₃ (0 â‰ <i>x</i> â‰) Tj ETQq1 1 0.784314 rg 7474-7481.	2.1	6
14	Lithium solid-state batteries: State-of-the-art and challenges for materials, interfaces and processing. Journal of Power Sources, 2021, 502, 229919.	4.0	92
15	Stacking Versatility in Alkali-Mixed Honeycomb Layered NaKNi₂TeO₆. Inorganic Chemistry, 2021, 60, 14310-14317.	1.9	9
16	Elucidating cycling rate-dependent electrochemical strains in sodium iron phosphate cathodes for Na-ion batteries. Journal of Power Sources, 2021, 507, 230297.	4.0	14
17	Crystalline LiPON as a Bulk-Type Solid Electrolyte. ACS Energy Letters, 2021, 6, 445-450.	8.8	43
18	(Invited) Intercalation Chemistry in Ordered and Disordered Battery Materials. ECS Meeting Abstracts, 2021, MA2021-02, 194-194.	0.0	0

#	Article	IF	Citations
19	Exploring new hydrated delta type vanadium oxides for lithium intercalation. Dalton Transactions, 2020, 49, 3856-3868.	1.6	4
20	Cost-Effective Synthesis of <i>Triphylite</i>-NaFePO₄ Cathode: A Zero-Waste Process. ACS Sustainable Chemistry and Engineering, 2020, 8, 725-730.	3.2	36
21	Factors Defining the Intercalation Electrochemistry of CaFe₂O₄-Type Manganese Oxides. Chemistry of Materials, 2020, 32, 8203-8215.	3.2	6
22	The Critical Role of Carbon in the Chemical Delithiation Kinetics of LiFePO₄. Journal of the Electrochemical Society, 2020, 167, 070538.	1.3	8
23	High-Voltage Sodium and Lithium Nitridophosphates axMy(PO3)3n As Cathode Materials for Sodium-Ion and Lithium-Ion Batteries. ECS Meeting Abstracts, 2020, MA2020-01, 154-154.	0.0	0
24	(Invited) Challenges of Today for Na Based Batteries of the Future. ECS Meeting Abstracts, 2020, MA2020-02, 523-523.	0.0	0
25	Investigation of NaTiOPO₄ as Anode for Sodium-Ion Batteries: A Solid Electrolyte Interphase Free Material?. ACS Applied Energy Materials, 2019, 2, 1923-1931.	2.5	18
26	Na₄Co₃(PO₄)₂P₂O₇ through Correlative <i>Operando</i> X-ray Diffraction and Electrochemical Impedance Spectroscopy. Chemistry of Materials, 2019, 31, 5152-5159.	3.2	24
27	DFT-Assisted Solid-State NMR Characterization of Defects in Li₂MnO₃. Inorganic Chemistry, 2019, 58, 8347-8356.	1.9	21
28	A SAXS outlook on disordered carbonaceous materials for electrochemical energy storage. Energy Storage Materials, 2019, 21, 162-173.	9.5	95
29	Coulombic self-ordering upon charging a large-capacity layered cathode material for rechargeable batteries. Nature Communications, 2019, 10, 2185.	5.8	62
30	An investigation of the structural properties of Li and Na fast ion conductors using high-throughput bond-valence calculations and machine learning. Journal of Applied Crystallography, 2019, 52, 148-157.	1.9	39
31	Sodium and Lithium Metal Nitridophosphates AxMy(PO3)3N as high-voltage positive electrode materials for Sodium-ion and Lithium-Ion batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
32	(Invited) In Quest of High Voltage Insertion Compounds for Li-Ion and Na-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
33	Toward Safe and Sustainable Batteries: Na₄Fe₃(PO₄)₂P₂O₇ as a Low-Cost Cathode for Rechargeable Aqueous Na-Ion Batteries. Journal of Physical Chemistry C, 2018, 122, 133-142.	1.5	58
34	Facet-Dependent Rock-Salt Reconstruction on the Surface of Layered Oxide Cathodes. Chemistry of Materials, 2018, 30, 692-699.	3.2	53
35	Effect of Synthetic Parameters on Defects, Structure, and Electrochemical Properties of Layered Oxide LiNi_{0.80}Co_{0.15}Al_{0.05}O₂. Journal of the Electrochemical Society, 2018, 165, A3537-A3543.	1.3	7
36	The nickel battery positive electrode revisited: stability and structure of the Î^{2}-NiOOH phase. Journal of Materials Chemistry A, 2018, 6, 19256-19265.	5.2	27

#	Article	IF	Citations
37	Stable cycling of NaFePO4 cathodes in high salt concentration ionic liquid electrolytes. Journal of Power Sources, 2018, 406, 70-80.	4.0	28
38	Rate dependence of the reaction mechanism in olivine NaFePO₄ Na-ion cathode material. International Journal of Energy Research, 2018, 42, 3258-3265.	2.2	28
39	Enhanced electrochemical performance of Li-rich cathode materials through microstructural control. Physical Chemistry Chemical Physics, 2018, 20, 23112-23122.	1.3	46
40	Investigation of planar defects in electrode materials using FAULTS. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e87-e87.	0.0	1
41	Order and disorder in NMC layered materials: a FAULTS simulation analysis. Powder Diffraction, 2017, 32, S213-S220.	0.4	12
42	Sodium vanadium nitridophosphate Na3V(PO3)3N as a high-voltage positive electrode material for Na-ion and Li-ion batteries. Electrochemistry Communications, 2017, 84, 14-18.	2.3	36
43	Naâ€ion Batteries for Large Scale Applications: A Review on Anode Materials and Solid Electrolyte Interphase Formation. Advanced Energy Materials, 2017, 7, 1700463.	10.2	261
44	A comparative study of aqueous and organic processed Li1.2Ni0.2Mn0.6O2 Li-rich cathode materials for advanced lithium-ion batteries. Electrochimica Acta, 2017, 247, 420-425.	2.6	14
45	Influence of Using Metallic Na on the Interfacial and Transport Properties of Na-Ion Batteries. Batteries, 2017, 3, 16.	2.1	17
46	Investigation of sodium insertionâ€“extraction in olivine Na_xFePO₄ (0 â‰ x â‰ 1) using first-principles calculations. Physical Chemistry Chemical Physics, 2016, 18, 13045-13051.	1.3	40
47	Electrochemical characterization of NaFe2(CN)6 Prussian Blue as positive electrode for aqueous sodium-ion batteries. Electrochimica Acta, 2016, 210, 352-357.	2.6	62
48	Atomic defects during ordering transitions in LiNi_{0.5}Mn_{1.5}O₄and their relationship with electrochemical properties. Journal of Materials Chemistry A, 2016, 4, 8255-8262.	5.2	41
49	Direct observation of electronic conductivity transitions and solid electrolyte interphase stability of Na2Ti3O7 electrodes for Na-ion batteries. Journal of Power Sources, 2016, 330, 78-83.	4.0	42
50	Batteries: Fundamentals and Materials Aspects. , 2016, , 313-350.		0
51	<i>FAULTS</i>: a program for refinement of structures with extended defects. Journal of Applied Crystallography, 2016, 49, 2259-2269.	1.9	85
52	Towards environmentally friendly Na-ion batteries: Moisture and water stability of Na2Ti3O7. Journal of Power Sources, 2016, 324, 378-387.	4.0	39
53	Identification of the critical synthesis parameters for enhanced cycling stability of Na-ion anode material Na2Ti3O7. Acta Materialia, 2016, 104, 125-130.	3.8	27
54	Electrochemical characterization of NaFePO4 as positive electrode in aqueous sodium-ion batteries. Journal of Power Sources, 2015, 291, 40-45.	4.0	107

#	ARTICLE	IF	CITATIONS
55	Structure of H₂Ti₃O₇and its evolution during sodium insertion as anode for Na ion batteries. Physical Chemistry Chemical Physics, 2015, 17, 6988-6994.	1.3	46
56	Composition and Evolution of the Solid-Electrolyte Interphase in Na₂Ti₃O₇ Electrodes for Na-Ion Batteries: XPS and Auger Parameter Analysis. ACS Applied Materials & Interfaces, 2015, 7, 7801-7808.	4.0	164
57	The Liâ€“Siâ€“(O)â€“N system revisited: Structural characterization of Li21Si3N11 and Li7SiN3O. Journal of Solid State Chemistry, 2014, 213, 152-157.	1.4	6
58	Naâ€“Vacancy and Charge Ordering in Na_{â‰ˆ2/3}FePO₄. Chemistry of Materials, 2014, 26, 3289-3294.	3.2	48
59	The mechanism of NaFePO₄ (de)sodiation determined by in situ X-ray diffraction. Physical Chemistry Chemical Physics, 2014, 16, 8837-8842.	1.3	96
60	Synthesis and characterization of pure P2- and O3-Na_{2/3}Fe_{2/3}Mn_{1/3}O₂as cathode materials for Na ion batteries. Journal of Materials Chemistry A, 2014, 2, 18523-18530.	5.2	98
61	Structural evolution and electrochemistry of monoclinic NaNiO2 uponÂthe first cycling process. Journal of Power Sources, 2014, 258, 266-271.	4.0	130
62	Considerations about the influence of the structural and electrochemical properties of carbonaceous materials on the behavior of lithium-ion capacitors. Journal of Power Sources, 2014, 266, 250-258.	4.0	64
63	Update on Na-based battery materials. A growing research path. Energy and Environmental Science, 2013, 6, 2312.	15.6	886
64	An approach to overcome first cycle irreversible capacity in P2-Na2/3[Fe1/2Mn1/2]O2. Electrochemistry Communications, 2013, 37, 61-63.	2.3	100
65	Composition-Structure Relationships in the Li-Ion Battery Electrode Material LiNi_{0.5}Mn_{1.5}O₄. Chemistry of Materials, 2012, 24, 2952-2964.	3.2	211
66	Crystal chemistry of Na insertion/deinsertion in FePO4â€“NaFePO4. Journal of Materials Chemistry, 2012, 22, 17421.	6.7	189
67	Dispersion of SiW12 Nanoparticles on Highly Oxidized Multiwalled Carbon Nanotubes and their Electrocatalytic Behavior. Journal of Nano Research, 2011, 14, 11-18.	0.8	5
68	Existence of Superstructures Due to Large Amounts of Fe Vacancies in the LiFePO₄-Type Framework. Chemistry of Materials, 2011, 23, 32-38.	3.2	34
69	Narrow in-gap states in doped. Chemical Physics Letters, 2011, 515, 29-31.	1.2	4
70	Carbon dioxide sensing properties of bismuth cobaltite. Sensors and Actuators B: Chemical, 2011, 157, 380-387.	4.0	10
71	Straightforward synthesis of a novel hydronium titanium oxyfluoride. Materials Chemistry and Physics, 2010, 124, 904-907.	2.0	12
72	Exploring orderâ€“disorder structural transitions in the Liâ€“Nbâ€“Nâ€“O system: The new antifluorite oxynitride Li11NbN4O2. Journal of Solid State Chemistry, 2010, 183, 1609-1614.	1.4	5

#	Article	IF	Citations
73	Effect of particle size and cell parameter mismatch on the lithium insertion/deinsertion processes into RuO2. Solid State Ionics, 2010, 181, 536-544.	1.3	13
74	Influence of the Microstructure on the High-Temperature Transport Properties of GdBaCo₂O_{5.5+Î´} Epitaxial Films. Chemistry of Materials, 2010, 22, 5512-5520.	3.2	18
75	Doping a TiO₂ Photoanode with Nb⁵⁺ to Enhance Transparency and Charge Collection Efficiency in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 15849-15856.	1.5	153
76	Effects of Moderate Thermal Treatments under Air on LiFePO4-based Nano Powders. ECS Meeting Abstracts, 2009, , .	0.0	0
77	Evolution of the electrochemical processes vs. Li in RuO2 as a function of crystallite size. Solid State Ionics, 2009, 180, 308-313.	1.3	12
78	The effects of moderate thermal treatments under air on LiFePO4-based nano powders. Journal of Materials Chemistry, 2009, 19, 3979.	6.7	106
79	Defect Chemistry and Catalytic Activity of Nanosized Co₃O₄. Chemistry of Materials, 2009, 21, 1939-1947.	3.2	124
80	Room-temperature single-phase LiÂinsertion/extraction in nanoscale LixFePO4. Nature Materials, 2008, 7, 741-747.	13.3	639
81	Formation of a Complete Solid Solution between the Triphylite and Fayalite Olivine Structures. Chemistry of Materials, 2008, 20, 6798-6809.	3.2	41
82	Characterizing Nickel Battery Materials: Crystal Structure of Î²-NiOOH. , 2008, , .		1
83	Deciphering the Structural Transformations during Nickel Oxyhydroxide Electrode Operation. Journal of the American Chemical Society, 2007, 129, 5840-5842.	6.6	72
84	Microstructural characterisation of battery materials using powder diffraction data: DIFFaX, FAULTS and SH-FullProf approaches. Journal of Power Sources, 2007, 174, 414-420.	4.0	43
85	New insights on the microstructural characterisation of nickel hydroxides and correlation with electrochemical properties. Journal of Materials Chemistry, 2006, 16, 2925-2939.	6.7	31
86	Ag2CuMnO4: A new silver copper oxide with delafossite structure. Journal of Solid State Chemistry, 2006, 179, 3883-3892.	1.4	29
87	A Survey of Diverse Approximations for Microstructural Characterization using Powder Diffraction Data: Î²-Ni(OH)2, a Case Study. Materials Research Society Symposia Proceedings, 2006, 972, 1.	0.1	0
88	FAULTS, a new program for refinement of powder diffraction patterns from layered structures. Zeitschrift FÃ¼r Kristallographie, Supplement, 2006, 2006, 243-248.	0.5	30
89	FAULTS, a new program for refinement of powder diffraction patterns from layered structures. , 2006, , 243-248.		2
90	Microstructural analysis of nickel hydroxide: Anisotropic size versus stacking faults. Powder Diffraction, 2005, 20, 334-344.	0.4	46

#	Article	IF	Citations
91	On the key importance of homogeneity in the electrochemical performance of industrial positive active materials in nickel batteries. Journal of Power Sources, 2004, 134, 298-307.	4.0	9
92	Rationalization of the Industrial Nickel Hydroxide Synthetic Process in View of Optimizing Its Electrochemical Performances. Industrial & Engineering Chemistry Research, 2004, 43, 4957-4963.	1.8	5