

# Montse Galceran

## List of Publications by Year in descending order

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48  
papers

1,266  
citations

361296

20  
h-index

377752

34  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1747  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural evolution during sodium deintercalation/intercalation in $\text{Na}_{2/3}[\text{Fe}_{1/2}\text{Mn}_{1/2}]\text{O}_2$ . Journal of Materials Chemistry A, 2015, 3, 6954-6961.	5.2	117
2	Sol-gel modified Pechini method for obtaining nanocrystalline $\text{KRE}(\text{WO}_4)_2$ ( $\text{RE}=\text{Gd}$ and $\text{Yb}$ ). Journal of Sol-Gel Science and Technology, 2007, 42, 79-88.	1.1	112
3	The mechanism of $\text{NaFePO}_4$ (de)sodiation determined by in situ X-ray diffraction. Physical Chemistry Chemical Physics, 2014, 16, 8837-8842.	1.3	96
4	A Co- and Ni-Free $\text{P}_2/\text{O}_3$ Biphasic Lithium Stabilized Layered Oxide for Sodium-Ion Batteries and its Cycling Behavior. Advanced Functional Materials, 2020, 30, 2003364.	7.8	80
5	Advanced TEM investigation of the plasticity mechanisms in nanocrystalline freestanding palladium films with nanoscale twins. International Journal of Plasticity, 2012, 37, 140-156.	4.1	54
6	Poly(ionic liquid) iongel membranes for all solid-state rechargeable sodium battery. Journal of Membrane Science, 2019, 582, 435-441.	4.1	49
7	Na Vacancy and Charge Ordering in $\text{Na}_{2/3}\text{FePO}_4$ . Chemistry of Materials, 2014, 26, 3289-3294.	3.2	48
8	Crystalline LiPON as a Bulk-Type Solid Electrolyte. ACS Energy Letters, 2021, 6, 445-450.	8.8	43
9	Investigation of sodium insertion/extraction in olivine $\text{Na}_x\text{FePO}_4$ ( $0 \leq x \leq 1$ ) using first-principles calculations. Physical Chemistry Chemical Physics, 2016, 18, 13045-13051.	1.3	40
10	Synthesis, Structural, and Optical Properties in Monoclinic $\text{Er:KYb}(\text{WO}_4)_2$ Nanocrystals. Journal of Physical Chemistry C, 2009, 113, 15497-15506.	1.5	37
11	Synthesis and characterization of nanocrystalline $\text{Yb:Lu}_2\text{O}_3$ by modified Pechini method. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 146, 7-15.	1.7	36
12	Sodium vanadium nitridophosphate $\text{Na}_3\text{V}(\text{PO}_3)_3\text{N}$ as a high-voltage positive electrode material for Na-ion and Li-ion batteries. Electrochemistry Communications, 2017, 84, 14-18.	2.3	36
13	High Performance Titanium Antimonide $\text{TiSb}_2$ Alloy for Na-Ion Batteries and Capacitors. Chemistry of Materials, 2018, 30, 8155-8163.	3.2	36
14	Cost-Effective Synthesis of <i>Triphylite</i> - $\text{NaFePO}_4$ Cathode: A Zero-Waste Process. ACS Sustainable Chemistry and Engineering, 2020, 8, 725-730.	3.2	36
15	Plasticity mechanisms in ultrafine grained freestanding aluminum thin films revealed by <i>in-situ</i> transmission electron microscopy nanomechanical testing. Applied Physics Letters, 2014, 104, .	1.5	32
16	Rate dependence of the reaction mechanism in olivine $\text{NaFePO}_4$ Na-ion cathode material. International Journal of Energy Research, 2018, 42, 3258-3265.	2.2	28
17	UV-Cross-Linked Ionogels for All-Solid-State Rechargeable Sodium Batteries. ACS Applied Energy Materials, 2019, 2, 6960-6966.	2.5	25
18	Structure analysis of aluminium silicon manganese nitride precipitates formed in grain-oriented electrical steels. Materials Characterization, 2013, 86, 116-126.	1.9	23

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19	UV-excited piezo-optical effects in oxide nanocrystals incorporated into PMMA matrices. <i>Acta Materialia</i> , 2008, 56, 5677-5684.	3.8	22
20	Nanoscale characterization of the evolution of the twin matrix orientation in Fe-Mn C twinning-induced plasticity steel by means of transmission electron microscopy orientation mapping. <i>Scripta Materialia</i> , 2013, 68, 400-403.	2.6	21
21	Effect of deposition rate on the microstructure of electron beam evaporated nanocrystalline palladium thin films. <i>Thin Solid Films</i> , 2013, 539, 145-150.	0.8	21
22	Unravelling the impact of electrolyte nature on Sn <sub>4</sub> P <sub>3</sub> /C negative electrodes for Na-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18434-18441.	5.2	21
23	Towards high energy density, low cost and safe Na-ion full-cell using P2-Na <sub>0.67</sub> [Fe <sub>0.5</sub> Mn <sub>0.5</sub> ]O <sub>2</sub> and Na <sub>2</sub> C <sub>4</sub> O <sub>4</sub> sacrificial salt. <i>Electrochimica Acta</i> , 2019, 321, 134693.	2.6	18
24	Investigation of NaTiOPO <sub>4</sub> as Anode for Sodium-Ion Batteries: A Solid Electrolyte Interphase Free Material?. <i>ACS Applied Energy Materials</i> , 2019, 2, 1923-1931.	2.5	18
25	Synthesis, structural and optical characterization of Eu:KYb(WO <sub>4</sub> ) <sub>2</sub> nanocrystals: A promising red phosphor. <i>Optical Materials</i> , 2010, 32, 1493-1500.	1.7	17
26	Exploring the rate dependence of phase evolution in P2-type Na <sub>2/3</sub> Mn <sub>0.8</sub> Fe <sub>0.1</sub> Ti <sub>0.1</sub> O <sub>2</sub> . <i>Journal of Materials Chemistry A</i> , 2019, 7, 12115-12125.	5.2	15
27	Synthesis and characterization of KTiOPO <sub>4</sub> nanocrystals and their PMMA nanocomposites. <i>Nanotechnology</i> , 2009, 20, 035705.	1.3	14
28	A Promising Lu <sub>2</sub> Ho <sub>3</sub> Laser Nanoceramic: Synthesis and Characterization. <i>Journal of the American Ceramic Society</i> , 2010, 93, 3764-3772.	1.9	14
29	Multiscale modelling framework for the fracture of thin brittle polycrystalline films: application to polysilicon. <i>Computational Mechanics</i> , 2015, 55, 73-91.	2.2	14
30	Experimental Considerations for Operando Metal-Ion Battery Monitoring using X-ray Techniques. <i>Chemistry Methods</i> , 2021, 1, 249-260.	1.8	14
31	Structural characterization and ytterbium spectroscopy in Sc <sub>2</sub> O <sub>3</sub> nanocrystals. <i>Journal of Luminescence</i> , 2010, 130, 1437-1443.	1.5	13
32	Size dependent fracture strength and cracking mechanisms in freestanding polycrystalline silicon films with nanoscale thickness. <i>Engineering Fracture Mechanics</i> , 2016, 168, 190-203.	2.0	13
33	Highly conductive ionogel electrolytes based on N-ethyl-N-methylpyrrolidinium bis(fluorosulfonyl)imide FSI and NaFSI mixtures and their applications in sodium batteries. <i>J Phys Materials</i> , 2021, 4, 044005.	1.8	12
34	Synthese und Struktur der Nitridokomplexe (Ph <sub>3</sub> Sb) <sub>2</sub> Cl <sub>3</sub> Os <sub>2</sub> N-RhCl(COD), (Me <sub>2</sub> PhP) <sub>2</sub> (PhCN)Cl <sub>2</sub> Re <sub>2</sub> N-RhCl <sub>2</sub> (C <sub>5</sub> Me <sub>5</sub> ), [(Me <sub>2</sub> PhP) <sub>3</sub> (PhCN)ClRe <sub>2</sub> N-OsCl <sub>2</sub> (CO) <sub>3</sub> ][OsCl <sub>3</sub> (CO) <sub>3</sub> ] und [(Me <sub>2</sub> PhP) <sub>3</sub> (PhCN)ClRe <sub>2</sub> N-ReCl <sub>4</sub> -N <sub>2</sub> ReCl(NCPh)(PMe <sub>2</sub> Ph) <sub>3</sub> ][OsCl <sub>4</sub> (CO) <sub>2</sub> ] / Synthesis and Structure of the Nitrido Complexes (Ph <sub>3</sub> Sb) <sub>2</sub> Cl <sub>3</sub> Os <sub>2</sub> N-RhCl(COD), (Me <sub>2</sub> PhP) <sub>2</sub> (PhCN)Cl <sub>2</sub> Re <sub>2</sub> N-RhCl <sub>2</sub> (C <sub>5</sub> Me <sub>5</sub> ), [(Me <sub>2</sub> PhP) <sub>3</sub> (PhCN)ClRe <sub>2</sub> N-OsCl <sub>2</sub> (CO) <sub>3</sub> ][OsCl <sub>3</sub> (CO) <sub>3</sub> ], and	0.3	11
35	Synthese und Struktur der Silber-Komplexe [PPH <sub>4</sub> ] <sub>2</sub> [Ag <sub>4</sub> Cl <sub>4</sub> (ClC <sub>6</sub> H <sub>4</sub> N <sub>3</sub> C <sub>6</sub> H <sub>4</sub> Cl) <sub>2</sub> ], Zeitschrift Fur Naturforschung - [Et <sub>4</sub> N][Ag <sub>2</sub> (tolyl-N <sub>5</sub> -tolyl) <sub>3</sub> ] <sub>1/2</sub> ·2THF und [(n-Bu) <sub>4</sub> N] <sub>3</sub> [Ag <sub>3</sub> Cl <sub>6</sub> ] und über die Reaktion der Komplexe [Ag(ClC <sub>6</sub> H <sub>4</sub> N <sub>3</sub> C <sub>6</sub> H <sub>4</sub> Cl) <sub>2</sub> ] und [Ag(tolyl-N <sub>5</sub> -tolyl)] <sub>2</sub> mit Iod. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2004, 630, 2231-2236.	0.6	10
36	Synthese und Kristallstruktur von heteronuklearen Metallkomplexen mit Nitridobridgen Re <sup>n</sup> -Ni, Re <sup>n</sup> -Pt, Os <sup>n</sup> -Rh und Os <sup>n</sup> -Ir. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2005, 631, 1113-1118.	0.6	9

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37	Automatic Crystallographic Characterization in a Transmission Electron Microscope: Applications to Twinning Induced Plasticity Steels and Al Thin Films. <i>Microscopy and Microanalysis</i> , 2013, 19, 693-697.	0.2	9
38	The Critical Role of Carbon in the Chemical Delithiation Kinetics of $\text{LiFePO}_4$ . <i>Journal of the Electrochemical Society</i> , 2020, 167, 070538.	1.3	8
39	Synthesis of monoclinic $\text{KGd}(\text{WO}_4)_2$ nanocrystals by two preparation methods. <i>Journal of Nanoparticle Research</i> , 2009, 11, 717-724.	0.8	7
40	Structure and formation mechanism of rolled-in oxide areas on aluminum lithographic printing sheets. <i>Scripta Materialia</i> , 2013, 68, 233-236.	2.6	7
41	The triphylite $\text{NaFe}_{1-y}\text{MnyPO}_4$ solid solution ( $0 \leq y \leq 1$ ): Kinetic strain accommodation in $\text{Na}_x\text{Fe}_{0.8}\text{Mn}_{0.2}\text{PO}_4$ . <i>Electrochimica Acta</i> , 2022, 425, 140650.	2.6	7
42	Exploring Na-ion technological advances: Pathways from energy to power. <i>Materials Today: Proceedings</i> , 2021, 39, 1118-1131.	0.9	6
43	Sustainable paths to a circular economy: reusing aged Li-ion $\text{FePO}_4$ cathodes within Na-ion cells. <i>JPhys Materials</i> , 2021, 4, 034002.	1.8	5
44	New microarchitectures of (Er,Yb): $\text{Lu}_2\text{O}_3$ nanocrystals embedded in PMMA: synthesis, structural characterization, and luminescent properties. <i>Nanoscale Research Letters</i> , 2013, 8, 385.	3.1	4
45	Sol-Gel Synthesized Antimony Anodes for Sodium-Ion Batteries: Identifying Key Parameters for Optimization. <i>Batteries</i> , 2017, 3, 20.	2.1	4
46	The fracture studies of polycrystalline silicon based MEMS. , 2013, , .		2
47	Surface Evolution of Lithium Titanate upon Electrochemical Cycling Using a Combination of Surface Specific Characterization Techniques. <i>Advanced Materials Interfaces</i> , 2020, 7, 1902164.	1.9	2
48	Thin Film Electrodes: Surface Evolution of Lithium Titanate upon Electrochemical Cycling Using a Combination of Surface Specific Characterization Techniques ( <i>Adv. Mater. Interfaces</i> 11/2020). <i>Advanced Materials Interfaces</i> , 2020, 7, 2070062.	1.9	0