

# Nicolas Gauquelin

## List of Publications by Year in descending order

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39  
papers

2,893  
citations

430874

18  
h-index

330143

37  
g-index

44  
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44  
docs citations

44  
times ranked

5835  
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsic Thermal Instability of Methylammonium Lead Trihalide Perovskite. <i>Advanced Energy Materials</i> , 2015, 5, 1500477.	19.5	1,788
2	Controlled lateral anisotropy in correlated manganite heterostructures by interface-engineered oxygen octahedral coupling. <i>Nature Materials</i> , 2016, 15, 425-431.	27.5	292
3	Spin-Orbit Semimetal $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \langle \text{mml:mi} \text{Sr} \text{I} \text{O} \langle \text{mml:mi} \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ in the Two-Dimensional Limit. <i>Physical Review Letters</i> , 2017, 119, 256403.	7.8	83
4	Berry phase engineering at oxide interfaces. <i>Physical Review Research</i> , 2020, 2, .	3.6	64
5	Thickness Dependent Properties in Oxide Heterostructures Driven by Structurally Induced Metal-Insulator Oxygen Hybridization Variations. <i>Advanced Functional Materials</i> , 2017, 27, 1606717.	14.9	61
6	Induced giant piezoelectricity in centrosymmetric oxides. <i>Science</i> , 2022, 375, 653-657.	12.6	59
7	Metal-Insulator-transition engineering by modulation tilt-control in perovskite nickelates for room temperature optical switching. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 9515-9520.	7.1	56
8	Determining oxygen relaxations at an interface: A comparative study between transmission electron microscopy techniques. <i>Ultramicroscopy</i> , 2017, 181, 178-190.	1.9	36
9	Novel class of nanostructured metallic glass films with superior and tunable mechanical properties. <i>Acta Materialia</i> , 2021, 213, 116955.	7.9	32
10	Crystal Structure and Luminescent Properties of $\text{R}_{2-x}\text{Eu}_x(\text{MoO}_4)_3$ (R = Gd, Sm) Red Phosphors. <i>Chemistry of Materials</i> , 2014, 26, 7124-7136.	6.7	28
11	Facile Dry Coating Method of High-Nickel Cathode Material by Nanostructured Fumed Alumina ( $\text{Al}_2\text{O}_3$ ) Improving the Performance of Lithium-Ion Batteries. <i>Energy Technology</i> , 2021, 9, 2100028.	3.8	27
12	Atomic resolution mapping of phonon excitations in STEM-EELS experiments. <i>Ultramicroscopy</i> , 2014, 147, 1-7.	1.9	25
13	Long-Range Domain Structure and Symmetry Engineering by Interfacial Oxygen Octahedral Coupling at Heterostructure Interface. <i>Advanced Functional Materials</i> , 2016, 26, 6627-6634.	14.9	25
14	Strain-Engineered Metal-Insulator Transition and Orbital Polarization in Nickelate Superlattices Integrated on Silicon. <i>Advanced Materials</i> , 2020, 32, e2004995.	21.0	24
15	Spatially Controlled Octahedral Rotations and Metal-Insulator Transitions in Nickelate Superlattices. <i>Nano Letters</i> , 2021, 21, 1295-1302.	9.1	24
16	The Role of $\text{SnF}_2$ Additive on Interface Formation in All Lead-Free $\text{FASn}_3$ Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	22
17	Reclaiming the image of daguerreotypes: Characterization of the corroded surface before and after atmospheric plasma treatment. <i>Journal of Cultural Heritage</i> , 2017, 28, 56-64.	3.3	20
18	Coupling Charge and Topological Reconstructions at Polar Oxide Interfaces. <i>Physical Review Letters</i> , 2021, 127, 127202.	7.8	20

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19	Interfacial dielectric layer as an origin of polarization fatigue in ferroelectric capacitors. Scientific Reports, 2020, 10, 7310.	3.3	19
20	Enhancement of toughness of Al-to-steel Friction Melt Bonded welds via metallic interlayers. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 740-741, 274-284.	5.6	17
21	Epitaxial Stress-Free Growth of High Crystallinity Ferroelectric $\text{PbZr}_{0.52}\text{Ti}_{0.48}\text{O}_3$ on GaN/AlGaN/Si(111) Substrate. Advanced Materials Interfaces, 2018, 5, 1700921.	3.7	16
22	Tailoring Vanadium Dioxide Film Orientation Using Nanosheets: a Combined Microscopy, Diffraction, Transport, and Soft X-Ray in Transmission Study. Advanced Functional Materials, 2020, 30, 1900028.	14.9	16
23	Increased Performance Improvement of Lithium-Ion Batteries by Dry Powder Coating of High-Nickel NMC with Nanostructured Fumed Ternary Lithium Metal Oxides. ACS Applied Energy Materials, 2021, 4, 8832-8848.	5.1	16
24	Co-Rich $\text{ZnCoO}$ Nanoparticles Embedded in Wurtzite $\text{ZnCoO}$ Thin Films: Possible Origin of Superconductivity. ACS Applied Materials & Interfaces, 2015, 7, 22166-22171.	8.0	15
25	Atom column detection from simultaneously acquired ABF and ADF STEM images. Ultramicroscopy, 2020, 219, 113046.	1.9	15
26	Signatures of enhanced out-of-plane polarization in asymmetric $\text{BaTiO}_3$ superlattices integrated on silicon. Nature Communications, 2022, 13, 265.	12.8	13
27	Studying Tomorrow's Materials Today: Insights with Quantitative STEM, EELS. Microscopy and Microanalysis, 2014, 20, 78-79.	0.4	11
28	Co valence transformation in isopolar $\text{LaCo}_3/\text{LaTi}_3$ perovskite heterostructures via interfacial engineering. Physical Review Materials, 2020, 4, .	2.4	11
29	Nanoscale investigation by TEM and STEM-EELS of the laser induced yellowing. Micron, 2018, 115, 25-31.	2.2	10
30	Electronic and Chemical Properties of Nickel Oxide Thin Films and the Intrinsic Defects Compensation Mechanism. ACS Applied Electronic Materials, 2022, 4, 2718-2728.	4.3	9
31	Metal-insulator transition of $\text{SrVO}_3$ ultrathin films embedded in $\text{SrVO}_3/\text{SrTiO}_3$ superlattices. Applied Physics Letters, 2020, 117, 133105.	3.3	7
32	Thermal-strain-engineered ferromagnetism of $\text{LaMnO}_3/\text{SrTiO}_3$ heterostructures grown on silicon. Physical Review Materials, 2020, 4, .	2.4	7
33	On the Importance of the Work Function and Electron Carrier Density of Oxide Electrodes for the Functional Properties of Ferroelectric Capacitors. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900520.	2.4	6
34	Interface degradation and field screening mechanism behind bipolar-cycling fatigue in ferroelectric capacitors. APL Materials, 2021, 9, .	5.1	6
35	Gate-tuned anomalous Hall effect driven by Rashba splitting in intermixed $\text{LaAlO}_3/\text{GdTiO}_3/\text{SrTiO}_3$ . Scientific Reports, 2021, 11, 10726.	3.3	6
36	Deeper insights into the photoluminescence properties and (photo)chemical reactivity of cadmium red ( $\text{CdS}_{1-x}\text{Se}_x$ ) paints in renowned twentieth century paintings by state-of-the-art investigations at multiple length scales. European Physical Journal Plus, 2022, 137, 1.	2.6	5

#	ARTICLE	IF	CITATIONS
37	Simultaneous heteroepitaxial growth of SrO (001) and SrO (111) during strontium-assisted deoxidation of the Si (001) surface. RSC Advances, 2020, 10, 31261-31270.	3.6	1
38	Advances in Electron Energy-Loss Spectroscopy with High Spatial and Energy Resolution. Microscopy and Microanalysis, 2014, 20, 2176-2177.	0.4	0
39	Resistance minimum in $\text{LaAlO}_3$ . Physical Review Materials, 2022, 6, .		