

# Andrea Cavallaro

## List of Publications by Year in descending order

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47  
papers

1,407  
citations

394421

19  
h-index

330143

37  
g-index

50  
all docs

50  
docs citations

50  
times ranked

1849  
citing authors

#	ARTICLE	IF	CITATIONS
1	Visualizing local fast ionic conduction pathways in nanocrystalline lanthanum manganite by isotope exchange-atom probe tomography. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2228-2234.	10.3	4
2	Fast Redox Kinetics in SrCo <sub>1-x</sub> Sb <sub>x</sub> O <sub>3</sub> Perovskites for Thermochemical Energy Storage. <i>Journal of the Electrochemical Society</i> , 2022, 169, 044509.	2.9	2
3	A high-entropy manganite in an ordered nanocomposite for long-term application in solid oxide cells. <i>Nature Communications</i> , 2021, 12, 2660.	12.8	37
4	Analysis of H <sub>2</sub> O-induced surface degradation in SrCoO <sub>3</sub> -derivatives and its impact on redox kinetics. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24528-24538.	10.3	4
5	Direct Measurement of Oxygen Mass Transport at the Nanoscale. <i>Advanced Materials</i> , 2021, 33, e2105622.	21.0	11
6	Revealing Strain Effects on the Chemical Composition of Perovskite Oxide Thin Films Surface, Bulk, and Interfaces. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901440.	3.7	6
7	The origin of chemical inhomogeneity in garnet electrolytes and its impact on the electrochemical performance. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14265-14276.	10.3	26
8	Surface Restructuring of Thin-Film Electrodes Based on Thermal History and Its Significance for the Catalytic Activity and Stability at the Gas/Solid and Solid/Solid Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 34388-34401.	8.0	3
9	Large memcapacitance and memristance at Nb:SrTiO <sub>3</sub> /La <sub>0.5</sub> Sr <sub>0.5</sub> Mn <sub>0.5</sub> Co <sub>0.5</sub> O <sub>3-<math>\delta</math></sub> topotactic redox interface. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	6
10	Amorphous-cathode-route towards low temperature SOFC. <i>Sustainable Energy and Fuels</i> , 2018, 2, 862-875.	4.9	20
11	Crystal structure and surface characteristics of Sr-doped GdBaCo <sub>2</sub> O <sub>6</sub> double perovskites: oxygen evolution reaction and conductivity. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5335-5345.	10.3	42
12	Elucidating the role of dopants in the critical current density for dendrite formation in garnet electrolytes. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19817-19827.	10.3	88
13	Garnet Electrolytes for Solid State Batteries: Visualization of Moisture-Induced Chemical Degradation and Revealing Its Impact on the Li-Ion Dynamics. <i>Chemistry of Materials</i> , 2018, 30, 3704-3713.	6.7	108
14	Understanding surface structure and chemistry of single crystal lanthanum aluminate. <i>Scientific Reports</i> , 2017, 7, 43721.	3.3	3
15	The effects of lattice strain, dislocations, and microstructure on the transport properties of YSZ films. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 14319-14336.	2.8	42
16	Relaxations and Relaxor-Ferroelectric-Like Response of Nanotubularly Confined Poly(vinylidene fluoride) (PVDF) Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 1023-1031.	6.7	23
17	Fast grain boundary oxygen ion diffusion in the $\delta$ -phase of Bi <sub>2</sub> O <sub>3</sub> . <i>Solid State Ionics</i> , 2017, 299, 89-92.	2.7	3
18	Engineering Mixed Ionic Electronic Conduction in La <sub>0.8</sub> Sr <sub>0.2</sub> MnO <sub>3</sub> Nanostructures through Fast Grain Boundary Oxygen Diffusivity. <i>Advanced Energy Materials</i> , 2015, 5, 1500377.	19.5	75

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19	Grain Boundary Engineering to Improve Ionic Conduction in Thin Films for Micro-SOFCs. ECS Transactions, 2015, 69, 11-16.	0.5	2
20	Controlling the surface termination of NdGaO <sub>3</sub> (110): the role of the gas atmosphere. Nanoscale, 2014, 6, 7263.	5.6	6
21	Chemistry and structure of homoepitaxial SrTiO <sub>3</sub> films and their influence on oxide-heterostructure interfaces. Nanoscale, 2014, 6, 2598.	5.6	22
22	Epitaxial films of the proton-conducting Ca-doped LaNbO <sub>4</sub> material and a study of their charge transport properties. Solid State Ionics, 2012, 216, 25-30.	2.7	4
23	Heteroepitaxial orientation control of YSZ thin films by selective growth on SrO-, TiO <sub>2</sub> -terminated SrTiO <sub>3</sub> crystal surfaces. CrystEngComm, 2011, 13, 1625-1631.	2.6	16
24	Residual Stress of Free-Standing Membranes of Yttria-Stabilized Zirconia for Micro Solid Oxide Fuel Cell Applications. Journal of Nanoscience and Nanotechnology, 2010, 10, 1327-1337.	0.9	19
25	Electrical characterization of thermomechanically stable YSZ membranes for micro solid oxide fuel cells applications. Solid State Ionics, 2010, 181, 322-331.	2.7	61
26	Electronic nature of the enhanced conductivity in YSZ-STO multilayers deposited by PLD. Solid State Ionics, 2010, 181, 592-601.	2.7	111
27	Silicon-based Micro Platforms for Characterization of Nanostructured Layers With Application in Intermediate Temperature Micro Solid Oxide Fuel Cells. Materials Research Society Symposia Proceedings, 2010, 1256, 1.	0.1	1
28	Fabrication and characterization of yttria-stabilized zirconia membranes for micro solid oxide fuel cells. , 2009, , .		2
29	YSZ Free-standing Membranes for Silicon-based Micro SOFCs. ECS Transactions, 2009, 25, 931-938.	0.5	1
30	Coated Conductor: Some Critical Aspects from Substrate to Device. Materials Science Forum, 2007, 546-549, 1855-1864.	0.3	1
31	Progress towards all-chemical superconducting YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> -coated conductors. Superconductor Science and Technology, 2006, 19, S13-S26.	3.5	205
32	All-chemical YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> coated conductors on IBAD-YSZ stainless steel substrates. Superconductor Science and Technology, 2006, 19, L1-L4.	3.5	22
33	Mn valence instability in La <sub>2-x</sub> Ca <sub>1+x</sub> MnO <sub>3</sub> thin films. Physical Review B, 2006, 73, .	3.2	48
34	Growth Mechanism, Microstructure, and Surface Modification of Nanostructured CeO <sub>2</sub> Films by Chemical Solution Deposition. Advanced Functional Materials, 2006, 16, 1363-1372.	14.9	69
35	Interface control in all metalorganic deposited coated conductors: Influence on critical currents. Journal of Materials Research, 2006, 21, 2176-2184.	2.6	12
36	All-chemical high-J <sub>c</sub> YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> multilayers with SrTiO <sub>3</sub> as cap layer. Journal of Materials Research, 2006, 21, 1106-1116.	2.6	18

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37	Growth Mechanism and Optimization of MOD CeO <sub>2</sub> Buffer Layers for TFA YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> /CeO <sub>2</sub> Multilayers. Materials Research Society Symposia Proceedings, 2005, 868, 681.	0.1	0
38	Interface Control in All MOD Coated Conductors: Influence on Critical Currents. Materials Research Society Symposia Proceedings, 2005, 868, 661.	0.1	0
39	Mechanisms of nanostructural and morphological evolution of CeO <sub>2</sub> functional films by chemical solution deposition. Nanotechnology, 2005, 16, 1809-1813.	2.6	35
40	High $J_c$ YBCO Thin Films and Multilayers Grown by Chemical Solution Deposition. IEEE Transactions on Applied Superconductivity, 2005, 15, 2747-2750.	1.7	2
41	Preparation of $MZrO_3$ (M = Ba, Sr) Buffer Layers on Surface Oxidized Ni/NiO Templates by PLD and MOD. IEEE Transactions on Applied Superconductivity, 2005, 15, 3024-3027.	1.7	12
42	Chemical solution deposition: a path towards low cost coated conductors. Superconductor Science and Technology, 2004, 17, 1055-1064.	3.5	121
43	Chemical solution techniques for epitaxial growth of oxide buffer and YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> films. Journal of the European Ceramic Society, 2004, 24, 1831-1835.	5.7	14
44	Chemical solution growth of superconductors: a new path towards high critical current coated conductors. Physica C: Superconductivity and Its Applications, 2004, 408-410, 913-914.	1.2	4
45	High quality YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films grown by trifluoroacetates metalorganic deposition. Superconductor Science and Technology, 2003, 16, 45-53.	3.5	56
46	Influence of porosity on the critical currents of trifluoroacetate-MOD YBa <sub>2</sub> /Cu <sub>3</sub> /O <sub>7</sub> films. IEEE Transactions on Applied Superconductivity, 2003, 13, 2504-2507.	1.7	38
47	CRYSTAL STRUCTURE DATA ON A NEW CUBIC PHASE ACTING AS ANTAGONIST IN THE SYNTHESIS OF Hg(Re)-1223 SUPERCONDUCTOR. International Journal of Modern Physics B, 2000, 14, 2706-2712.	2.0	1