

# 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  | 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       |
| 2  | Chemical solution deposition: a path towards low cost coated conductors. Superconductor Science and Technology, 2004, 17, 1055-1064.   | 3.5  | 121       |
| 3  | Electronic nature of the enhanced conductivity in YSZ-STO multilayers deposited by PLD. Solid State Ionics, 2010, 181, 592-601.  | 2.7  | 111       |
| 4  | Garnet Electrolytes for Solid State Batteries: Visualization of Moisture-Induced Chemical Degradation and Revealing Its Impact on the Li-Ion Dynamics. Chemistry of Materials, 2018, 30, 3704-3713.                  | 6.7  | 108       |
| 5  | Elucidating the role of dopants in the critical current density for dendrite formation in garnet electrolytes. Journal of Materials Chemistry A, 2018, 6, 19817-19827.   | 10.3 | 88        |
| 6  | 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. Advanced Energy Materials, 2015, 5, 1500377.    | 19.5 | 75        |
| 7  | 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        |
| 8  | Electrical characterization of thermomechanically stable YSZ membranes for micro solid oxide fuel cells applications. Solid State Ionics, 2010, 181, 322-331.  | 2.7  | 61        |
| 9  | 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        |
| 10 | 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        |
| 11 | The effects of lattice strain, dislocations, and microstructure on the transport properties of YSZ films. Physical Chemistry Chemical Physics, 2017, 19, 14319-14336.  | 2.8  | 42        |
| 12 | Crystal structure and surface characteristics of Sr-doped GdBaCo <sub>2</sub> O <sub>6-δ</sub> double perovskites: oxygen evolution reaction and conductivity. Journal of Materials Chemistry A, 2018, 6, 5335-5345. | 10.3 | 42        |
| 13 | 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        |
| 14 | A high-entropy manganite in an ordered nanocomposite for long-term application in solid oxide cells. Nature Communications, 2021, 12, 2660.  | 12.8 | 37        |
| 15 | 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        |
| 16 | The origin of chemical inhomogeneity in garnet electrolytes and its impact on the electrochemical performance. Journal of Materials Chemistry A, 2020, 8, 14265-14276.   | 10.3 | 26        |
| 17 | Relaxations and Relaxor-Ferroelectric-Like Response of Nanotubularly Confined Poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10   | 6.7  | 23        |
| 18 | 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        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Chemistry and structure of homoepitaxial SrTiO <sub>3</sub> films and their influence on oxide-heterostructure interfaces. <i>Nanoscale</i> , 2014, 6, 2598.  | 5.6  | 22        |
| 20 | Amorphous-cathode-route towards low temperature SOFC. <i>Sustainable Energy and Fuels</i> , 2018, 2, 862-875.   | 4.9  | 20        |
| 21 | Residual Stress of Free-Standing Membranes of Ytria-Stabilized Zirconia for Micro Solid Oxide Fuel Cell Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 1327-1337.   | 0.9  | 19        |
| 22 | 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. <i>Journal of Materials Research</i> , 2006, 21, 1106-1116.  | 2.6  | 18        |
| 23 | Heteroepitaxial orientation control of YSZ thin films by selective growth on SrO-, TiO <sub>2</sub> -terminated SrTiO <sub>3</sub> crystal surfaces. <i>CrystEngComm</i> , 2011, 13, 1625-1631.   | 2.6  | 16        |
| 24 | Chemical solution techniques for epitaxial growth of oxide buffer and YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> films. <i>Journal of the European Ceramic Society</i> , 2004, 24, 1831-1835.  | 5.7  | 14        |
| 25 | Preparation of $\text{MZrO}_3$ (M = Ba, Sr) Buffer Layers on Surface Oxidized Ni/NiO Templates by PLD and MOD. <i>IEEE Transactions on Applied Superconductivity</i> , 2005, 15, 3024-3027.   | 1.7  | 12        |
| 26 | Interface control in all metalorganic deposited coated conductors: Influence on critical currents. <i>Journal of Materials Research</i> , 2006, 21, 2176-2184.  | 2.6  | 12        |
| 27 | Direct Measurement of Oxygen Mass Transport at the Nanoscale. <i>Advanced Materials</i> , 2021, 33, e2105622.   | 21.0 | 11        |
| 28 | Controlling the surface termination of NdGaO <sub>3</sub> (110): the role of the gas atmosphere. <i>Nanoscale</i> , 2014, 6, 7263.  | 5.6  | 6         |
| 29 | 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         |
| 30 | 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         |
| 31 | Chemical solution growth of superconductors: a new path towards high critical current coated conductors. <i>Physica C: Superconductivity and Its Applications</i> , 2004, 408-410, 913-914.   | 1.2  | 4         |
| 32 | Epitaxial films of the proton-conducting Ca-doped LaNbO <sub>4</sub> material and a study of their charge transport properties. <i>Solid State Ionics</i> , 2012, 216, 25-30.   | 2.7  | 4         |
| 33 | 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         |
| 34 | 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         |
| 35 | Understanding surface structure and chemistry of single crystal lanthanum aluminate. <i>Scientific Reports</i> , 2017, 7, 43721.  | 3.3  | 3         |
| 36 | Fast grain boundary oxygen ion diffusion in the $\hat{\pm}$ -phase of Bi <sub>2</sub> O <sub>3</sub> . <i>Solid State Ionics</i> , 2017, 299, 89-92.  | 2.7  | 3         |

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|----|--|-----|-----------|
| 37 | 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. ACS Applied Materials & Interfaces, 2020, 12, 34388-34401. | 8.0 | 3         |
| 38 | 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         |
| 39 | Fabrication and characterization of yttria-stabilized zirconia membranes for micro solid oxide fuel cells. , 2009, , .   |     | 2         |
| 40 | Grain Boundary Engineering to Improve Ionic Conduction in Thin Films for Micro-SOFCs. ECS Transactions, 2015, 69, 11-16.   | 0.5 | 2         |
| 41 | Fast Redox Kinetics in $\text{SrCo}_{1-x}\text{Sb}_x\text{O}_{3-\delta}$ Perovskites for Thermochemical Energy Storage. Journal of the Electrochemical Society, 2022, 169, 044509.   | 2.9 | 2         |
| 42 | 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         |
| 43 | Coated Conductor: Some Critical Aspects from Substrate to Device. Materials Science Forum, 2007, 546-549, 1855-1864.   | 0.3 | 1         |
| 44 | YSZ Free-standing Membranes for Silicon-based Micro SOFCs. ECS Transactions, 2009, 25, 931-938.  | 0.5 | 1         |
| 45 | 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         |
| 46 | 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         |
| 47 | Interface Control in All MOD Coated Conductors: Influence on Critical Currents. Materials Research Society Symposia Proceedings, 2005, 868, 661.   | 0.1 | 0         |