

# Gianluca De Marzi

## List of Publications by Year in descending order

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88  
papers

1,682  
citations

331670

21  
h-index

302126

39  
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89  
all docs

89  
docs citations

89  
times ranked

1848  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Fabrication of Nanopore Array Electrodes by Focused Ion Beam Milling. <i>Analytical Chemistry</i> , 2007, 79, 3048-3055.   | 6.5  | 192       |
| 2  | Design of an Industrially Feasible Twisted-Stack HTS Cable-in-Conduit Conductor for Fusion Application. <i>IEEE Transactions on Applied Superconductivity</i> , 2014, 24, 1-5.   | 1.7  | 133       |
| 3  | Probing intrinsic transport properties of single metal nanowires: Direct-write contact formation using a focused ion beam. <i>Journal of Applied Physics</i> , 2004, 96, 3458-3462.  | 2.5  | 100       |
| 4  | Water Confined in Lamellar Structures of AOT Surfactants: An Infrared Investigation. <i>Journal of Physical Chemistry B</i> , 2002, 106, 1032-1035.  | 2.6  | 93        |
| 5  | Infrared Absorption from Charge Density Waves in Magnetic Manganites. <i>Physical Review Letters</i> , 1998, 81, 4504-4507.  | 7.8  | 81        |
| 6  | Infrared-active phonons of $\text{LaMnO}_3$ and $\text{CaMnO}_3$ . <i>Physical Review B</i> , 1999, 60, 11875-11878.   | 3.2  | 79        |
| 7  | Cable-in-conduit conductors: lessons from the recent past for future developments with low and high temperature superconductors. <i>Superconductor Science and Technology</i> , 2015, 28, 053001.  | 3.5  | 76        |
| 8  | Infrared properties of chemical-vapor deposition polycrystalline diamond windows. <i>Applied Optics</i> , 1998, 37, 5731.  | 2.1  | 64        |
| 9  | Superconductivity-Induced Transparency in Terahertz Metamaterials. <i>ACS Photonics</i> , 2014, 1, 570-575.  | 6.6  | 47        |
| 10 | The DEMO magnet system – Status and future challenges. <i>Fusion Engineering and Design</i> , 2022, 174, 112971.   | 1.9  | 37        |
| 11 | Electrical Characterization of ENEA High Temperature Superconducting Cable. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-4.   | 1.7  | 36        |
| 12 | Synthesis of Pentacene Nanotubes by Melt-Assisted Template Wetting. <i>Chemistry of Materials</i> , 2007, 19, 338-340.   | 6.7  | 35        |
| 13 | Bending Tests of HTS Cable-In-Conduit Conductors for High-Field Magnet Applications. <i>IEEE Transactions on Applied Superconductivity</i> , 2016, 26, 1-7.  | 1.7  | 35        |
| 14 | Manipulating the Charging Energy of Nanocrystal Arrays. <i>Small</i> , 2005, 1, 613-618.   | 10.0 | 32        |
| 15 | Test Results of a NbTi Wire for the ITER Poloidal Field Magnets: A Validation of the 2-Pinning Components Model. <i>IEEE Transactions on Applied Superconductivity</i> , 2011, 21, 3132-3137.  | 1.7  | 29        |
| 16 | Effect of A-site and B-site substitution on the infrared reflectivity spectra of $\text{La}_{1-y}\text{AyMn}_{1-x}\text{BxO}_3$ ( $A=\text{Ba}, \text{Sr}; B=\text{Cu}, \text{Zn}, \text{Sc}; 0 < y < 0.3; 0 < -x < -0.1$ ) manganites. <i>Physical Review B</i> , 2003, 68, . | 3.2  | 28        |
| 17 | Optical conductivity of the nonsuperconducting cuprate $\text{La}_{8-x}\text{Sr}_x\text{Cu}_8\text{O}_{20}$ . <i>Physical Review B</i> , 2002, 65, .   | 3.2  | 26        |
| 18 | Phonon properties of the spinel oxide $\text{MgTi}_2\text{O}_4$ with the $S=1/2$ pyrochlore lattice. <i>Physical Review B</i> , 2003, 68, .  | 3.2  | 26        |

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|----|--|-----|-----------|
| 19 | Direct observation of Nb <sub>3</sub> Sn lattice deformation by high-energy x-ray diffraction in internal-tin wires subject to mechanical loads at 4.2 K. Superconductor Science and Technology, 2012, 25, 054006. | 3.5 | 24        |
| 20 | Strain sensitivity and superconducting properties of Nb <sub>3</sub> Sn from first principles calculations. Journal of Physics Condensed Matter, 2013, 25, 135702.   | 1.8 | 24        |
| 21 | LTS and HTS high current conductor development for DEMO. Fusion Engineering and Design, 2015, 96-97, 77-82.  | 1.9 | 22        |
| 22 | The JT-60SA Toroidal Field Conductor Reference Sample: Manufacturing and Test Results. IEEE Transactions on Applied Superconductivity, 2010, 20, 442-446.  | 1.7 | 21        |
| 23 | DTT device: Conceptual design of the superconducting magnet system. Fusion Engineering and Design, 2017, 122, 299-312.   | 1.9 | 21        |
| 24 | Refractive indices of SrTiO <sub>3</sub> in the infrared region. Journal of Infrared, Millimeter and Terahertz Waves, 1997, 18, 125-138.   | 0.6 | 19        |
| 25 | Electrothermal Analysis of a Twisted Stacked YBCO Cable-in-Conduit Conductor. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.   | 1.7 | 19        |
| 26 | Improvements of high-field pinning properties of polycrystalline Fe(Se,Te) material by heat treatments. Journal of Materials Science, 2019, 54, 5092-5100.   | 3.7 | 19        |
| 27 | Characterization of the Critical Current Capabilities of Commercial REBCO Coated Conductors for an HTS Cable-in-Conduit Conductor. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.                  | 1.7 | 17        |
| 28 | Improvement of electromechanical properties of an ITER internal tin Nb <sub>3</sub> Sn wire. Journal of Applied Physics, 2010, 108, .  | 2.5 | 16        |
| 29 | Magnetic and Transport Characterization of NbTi Strands as a Basis for the Design of Fusion Magnets. IEEE Transactions on Applied Superconductivity, 2009, 19, 2544-2547.  | 1.7 | 15        |
| 30 | Magnetization loss for stacks of ReBCO tapes. Superconductor Science and Technology, 2017, 30, 024010.   | 3.5 | 15        |
| 31 | Bending Behavior of HTS Stacked Tapes in a Cable-in-Conduit Conductor With Twisted Al-Slotted Core. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.   | 1.7 | 15        |
| 32 | The effect of Cu substitution on the A <sub>1g</sub> mode of La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> manganites. Solid State Communications, 2003, 127, 259-264.                                      | 1.9 | 14        |
| 33 | Experimental and numerical studies on current distribution in stacks of HTS tapes for cable-in-conduit-conductors. Superconductor Science and Technology, 2021, 34, 035016.  | 3.5 | 14        |
| 34 | Manufacturing of the ITER TF Full Size Prototype Conductor. IEEE Transactions on Applied Superconductivity, 2008, 18, 1105-1108.   | 1.7 | 13        |
| 35 | Reversible stress-induced anomalies in the strain function of Nb <sub>3</sub> Sn wires. Superconductor Science and Technology, 2012, 25, 025015.   | 3.5 | 13        |
| 36 | Fabrication and Characterization of Sintered Iron-Chalcogenide Superconductors. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.   | 1.7 | 13        |

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|----|--|-----|-----------|
| 37 | Influence of cable layout on the performance of ITER-type Nb <sub>3</sub> Sn conductors. Journal of Physics: Conference Series, 2008, 97, 012027.  | 0.4 | 12        |
| 38 | Fabrication and Physical Properties of Polycrystalline Iron-Chalcogenides Superconductors. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.  | 1.7 | 11        |
| 39 | Pinning Properties of Commercial Nb-Ti Wires Described by a 2-Components Model. IEEE Transactions on Applied Superconductivity, 2010, 20, 1496-1499.   | 1.7 | 10        |
| 40 | Phase Separation and Microstructure in Superconducting FeSe <sub>1-x</sub> Te <sub>x</sub> Materials. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.   | 1.7 | 10        |
| 41 | Modeling Experimental Magnetization Cycles of Thin Superconducting Strips by Finite-Element Simulations. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-7.  | 1.7 | 9         |
| 42 | Performance Test of Superconducting Wires Subject to Heavy Deformations. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.  | 1.7 | 9         |
| 43 | Thermal-Hydraulic Modeling of a Novel HTS CICC for Nuclear Fusion Applications. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-7.   | 1.7 | 9         |
| 44 | Electrothermal design of DC busbars for fusion facilities. Fusion Engineering and Design, 2021, 170, 112662.   | 1.9 | 9         |
| 45 | Experimental investigation of the transverse resistivity in Nb <sub>3</sub> Sn wires through ac susceptibility. Superconductor Science and Technology, 2013, 26, 085001.   | 3.5 | 8         |
| 46 | On the mechanisms governing the critical current reduction in Nb <sub>3</sub> Sn Rutherford cables under transverse stress. Scientific Reports, 2021, 11, 7369.  | 3.3 | 8         |
| 47 | Variable-temperature characterization of NbTi strands in the low critical-current density range. Journal of Physics: Conference Series, 2008, 97, 012306.  | 0.4 | 7         |
| 48 | The Effect of Hydrostatic Pressure on the Superconducting and Structural Properties of Nb <sub>3</sub> Sn: Ab-initio Modeling and SR-XRD Investigation. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5. | 1.7 | 7         |
| 49 | Transport current and magnetization of Bi-2212 wires above liquid Helium temperature for cryogen-free applications. Scientific Reports, 2021, 11, 11660.   | 3.3 | 6         |
| 50 | Optical conductivity of CuO <sub>2</sub> infinite-layer films. Solid State Communications, 1997, 104, 41-46.   | 1.9 | 5         |
| 51 | Doping-induced modifications in the infrared-active phonons of La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> . Physica C: Superconductivity and Its Applications, 2001, 350, 55-61.                               | 1.2 | 5         |
| 52 | Magnetic characterization of Nb <sub>3</sub> Sn strands under applied strain conditions. Superconductor Science and Technology, 2009, 22, 025020.  | 3.5 | 5         |
| 53 | Metallurgical Processes in NbTi Filaments as a Function of Isothermal Annealing Time. Physics Procedia, 2012, 36, 1516-1521.   | 1.2 | 5         |
| 54 | Solution Refining for MOD-YBCO Optimization: An NMR Study. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.  | 1.7 | 5         |

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|----|---|-----|-----------|
| 55 | Design Studies, Magnetic Calculations and Structural Assessment For the DTT Central Solenoid. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.  | 1.7 | 5         |
| 56 | A methodological approach for the optimal design of the toroidal field coils of a tokamak device using artificial intelligence. Superconductor Science and Technology, 2022, 35, 014002.                        | 3.5 | 5         |
| 57 | Investigation of transport mechanisms induced by filament-coupling bridges-network in Bi-2212 wires. Superconductor Science and Technology, 2022, 35, 035002.   | 3.5 | 5         |
| 58 | Analysis of Various Dopants on the $\text{MgB}_2$ Superconducting Properties. IEEE Transactions on Applied Superconductivity, 2009, 19, 2802-2806.  | 1.7 | 4         |
| 59 | The role of stoichiometry in superconducting $\text{Nb}_{1-x}\text{Sn}_x$ : electronic and vibrational properties from ab initio calculations. Physical Chemistry Chemical Physics, 2016, 18, 32840-32846.      | 2.8 | 4         |
| 60 | Fe(Se,Te) From Melting Routes: Insight on Phase Separation. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-4.  | 1.7 | 4         |
| 61 | Reduced strain sensitivity of the critical current of $\text{Nb}_3\text{Sn}$ multifilamentary wires. Journal of Applied Physics, 2019, 126, .   | 2.5 | 4         |
| 62 | DTT: A Challenging Framework for a Sound Superconducting Magnets Design. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.   | 1.7 | 4         |
| 63 | Magnetic and Electromechanical Characterization of a High- $C$ RRP Wire for the HL-LHC MQXF Cable. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.   | 1.7 | 4         |
| 64 | The Effect of Doping on the Magnetic Properties in $\text{Ba}_{1-x}\text{Co}_x\text{As}_2$ Polycrystalline Samples. IEEE Transactions on Applied Superconductivity, 2011, 21, 2874-2877.                        | 1.7 | 3         |
| 65 | Design and optimization of a HTS insert for solenoid magnets. Cryogenics, 2016, 80, 419-426.  | 1.7 | 3         |
| 66 | Fe(Se,Te) system crystallized in molten chlorides flux: The obtained materials and their characterization. Journal of Crystal Growth, 2019, 528, 125268.  | 1.5 | 3         |
| 67 | Strain distribution in the $\text{Nb}_3\text{Sn}$ rectangular wind and react conductor of the European DEMO project, determined by inductive measurements. Fusion Engineering and Design, 2019, 146, 1539-1542. | 1.9 | 3         |
| 68 | Stranger APCs: Study of Surface Decoration Material for YBCO Films. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.  | 1.7 | 3         |
| 69 | Design and Characterization of the Interlayer Joint Between Low-Field $\text{Nb}_3\text{Sn}$ Conductors of a Layer Wound DEMO TF Coil. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-7.           | 1.7 | 3         |
| 70 | Conceptual Design Studies of an HTS Insert for the DTT Central Solenoid. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.   | 1.7 | 3         |
| 71 | Evaluation of the Thermal Performance of the SC Feeders for the Magnetic System of the Divertor Tokamak Test Facility. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.                           | 1.7 | 3         |
| 72 | Optical Properties of $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ Manganites. Journal of Superconductivity and Novel Magnetism, 1999, 12, 289-290.   | 0.5 | 2         |

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|----|---|-----|-----------|
| 73 | Charge transport in a CoPt <sub>3</sub> nanocrystal microwire. Applied Physics Letters, 2004, 85, 5706-5708.  | 3.3 | 2         |
| 74 | Charge transport in nanocrystal wires created by direct electron beam writing. Micro and Nano Letters, 2010, 5, 274.  | 1.3 | 2         |
| 75 | Evolution of the Pinning Force of NbTi Filaments as a Function of Isothermal Annealing Time. Physics Procedia, 2012, 36, 1406-1411.   | 1.2 | 2         |
| 76 | Magnetic losses of commercial REBCO coated conductors in the low frequency range. Superconductor Science and Technology, 2018, 31, 055011.  | 3.5 | 2         |
| 77 | Heat Treatment Optimization on Nb <sub>3</sub> Sn Strands Based on Electrical and Physical Properties. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.                             | 1.7 | 2         |
| 78 | JT-60SA NbTi Wire Characterization After Thermal Shock Due to Helium Inlet Welding. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-4.  | 1.7 | 1         |
| 79 | Superconducting Wires and Cables: Materials and Processing. , 2016, , .   |     | 1         |
| 80 | Pareto-Optimization of HTS CICC for High-Current Applications in Self-Field. Advances in Condensed Matter Physics, 2018, 2018, 1-9.   | 1.1 | 1         |
| 81 | Self-Doping Effect in FeSe Superconductor by Pressure-Induced Charge Transfer. Journal of Superconductivity and Novel Magnetism, 2020, 33, 1263-1269.   | 1.8 | 1         |
| 82 | Polaron contribution to the infrared reflectivity of the (Ca,Sr,Nd)CuO <sub>2</sub> infinite layer structure. Physica B: Condensed Matter, 1999, 259-261, 540-541.                                | 2.7 | 0         |
| 83 | ANOMALOUS INFRARED PROPERTIES OF THE OXYGEN DEFICIENT CUPRATE La <sub>8-x</sub> Sr <sub>x</sub> Cu <sub>8</sub> O <sub>20</sub> . International Journal of Modern Physics B, 2000, 14, 3542-3547. | 2.0 | 0         |
| 84 | Magnetic characterization of Ba <sub>0.9</sub> Fe <sub>0.9</sub> Superconductivity and Its Applications, 2010, 470, S397-S398.  |     | 0         |
| 85 | Magnetic Characterization and FEM Computation of MgB <sub>2</sub> Bulk Spheres. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.  | 1.7 | 0         |
| 86 | Effect of annealing on structure and superconducting properties in Fe(Se,Te). Journal of Physics: Conference Series, 2020, 1559, 012053.  | 0.4 | 0         |
| 87 | Self-Doping Effect in FeSe Superconductor by Pressure-Induced Charge Transfer. Journal of Superconductivity and Novel Magnetism, 2020, 33, 1933-1939.   | 1.8 | 0         |
| 88 | DC Characterization of a Low-Field Nb <sub>3</sub> Sn Prototype Conductor for a DEMO TF Coil. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.                                      | 1.7 | 0         |