

# Roberto Verucchi

## List of Publications by Year in descending order

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77  
papers

1,239  
citations

331670

21  
h-index

434195

31  
g-index

78  
all docs

78  
docs citations

78  
times ranked

1857  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Detection of Nitroaromatic Explosives in Air by Amino-Functionalized Carbon Nanotubes. <i>Nanomaterials</i> , 2022, 12, 1278.  | 4.1  | 8         |
| 2  | Asymmetric supercapacitors based on nickel decorated graphene and porous graphene electrodes. <i>Electrochimica Acta</i> , 2022, 424, 140626.  | 5.2  | 19        |
| 3  | Tailoring Superconductivity in Large-Area Single-Layer NbSe <sub>2</sub> via Self-Assembled Molecular Adlayers. <i>Nano Letters</i> , 2021, 21, 136-143.   | 9.1  | 19        |
| 4  | Titanium-doped hydroxyapatites photoanodes for Dye-Sensitized Solar Cells. <i>Ceramics International</i> , 2021, 47, 9701-9710.  | 4.8  | 4         |
| 5  | Merging the Sol-Gel Technique with the Pulsed Microplasma Cluster Source Deposition to Improve Control over the Memristive Response of TiO <sub>2</sub> Thin Films. <i>Coatings</i> , 2021, 11, 348.   | 2.6  | 0         |
| 6  | Interfacing aptamers, nanoparticles and graphene in a hierarchical structure for highly selective detection of biomolecules in OECT devices. <i>Scientific Reports</i> , 2021, 11, 9380.   | 3.3  | 15        |
| 7  | In situ decoration of laser-scribed graphene with TiO <sub>2</sub> nanoparticles for scalable high-performance micro-supercapacitors. <i>Carbon</i> , 2021, 176, 296-306.  | 10.3 | 37        |
| 8  | Fabrication of a sensitive colorimetric nanosensor for determination of cysteine in human serum and urine samples based on magnetic-sulfur, nitrogen graphene quantum dots as a selective platform and Au nanoparticles. <i>Talanta</i> , 2021, 226, 122055. | 5.5  | 17        |
| 9  | 2D-MoS <sub>2</sub> goes 3D: transferring optoelectronic properties of 2D MoS <sub>2</sub> to a large-area thin film. <i>Npj 2D Materials and Applications</i> , 2021, 5, .  | 7.9  | 31        |
| 10 | Growth and functionalization of carbon nanotubes for nitroaromatic explosive detection. <i>Materials Today: Proceedings</i> , 2020, 20, 46-49.   | 1.8  | 6         |
| 11 | Platinum carbonyl clusters decomposition on defective graphene surface. <i>Surface Science</i> , 2020, 691, 121499.  | 1.9  | 8         |
| 12 | Synthesis of MoS <sub>2</sub> Thin Film by Ionized Jet Deposition: Role of Substrate and Working Parameters. <i>Surfaces</i> , 2020, 3, 683-693.   | 2.3  | 4         |
| 13 | Unravelling Work Function Contributions and Their Engineering in 2H-MoS <sub>2</sub> Single Crystal Discovered by Molecular Probe Interaction. <i>Journal of Physical Chemistry C</i> , 2020, 124, 6732-6740.  | 3.1  | 4         |
| 14 | Thermal-induced hydrophilicity enhancement of titanium dental implant surfaces. <i>Journal of Oral Science</i> , 2020, 62, 217-221.  | 1.7  | 19        |
| 15 | Doubling the Mechanical Properties of Spider Silk by C <sub>60</sub> Supersonic Molecular Beam Epitaxy. <i>Frontiers in Materials</i> , 2020, 7, .   | 2.4  | 2         |
| 16 | Boosting and Balancing Electron and Hole Mobility in Single- and Bilayer WSe <sub>2</sub> Devices via Tailored Molecular Functionalization. <i>ACS Nano</i> , 2019, 13, 11613-11622.   | 14.6 | 34        |
| 17 | Prototyping a memristive-based device to analyze neuronal excitability. <i>Biophysical Chemistry</i> , 2019, 253, 106212.  | 2.8  | 8         |
| 18 | Super-activated biochar from poultry litter for high-performance supercapacitors. <i>Microporous and Mesoporous Materials</i> , 2019, 285, 161-169.  | 4.4  | 58        |

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|----|--|-----|-----------|
| 19 | Flexible Conductors from Brown Algae for Green Electronics. <i>Advanced Sustainable Systems</i> , 2019, 3, 1900001.  | 5.3 | 11        |
| 20 | Osteoblast adhesion and response mediated by terminal "SH group charge surface of SiOx/Cy nanowires. <i>Journal of Materials Science: Materials in Medicine</i> , 2019, 30, 43.  | 3.6 | 8         |
| 21 | CIGS-Based Flexible Solar Cells. , 2019, , 365-382.  |     | 2         |
| 22 | 3D reconstruction of pentacene structural organization in top-contact OTFTs via resonant soft X-ray reflectivity. <i>Applied Physics Letters</i> , 2018, 112, .  | 3.3 | 6         |
| 23 | Versatile and Scalable Strategy To Grow Sol-Gel Derived 2H-MoS <sub>2</sub> Thin Films with Superior Electronic Properties: A Memristive Case. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 34392-34400.                | 8.0 | 22        |
| 24 | A novel combined experimental and multiscale theoretical approach to unravel the structure of SiC/SiO <sub>x</sub> core/shell nanowires for their optimal design. <i>Nanoscale</i> , 2018, 10, 13449-13461.                          | 5.6 | 5         |
| 25 | Photophysics of Pentacene-Doped Picene Thin Films. <i>Journal of Physical Chemistry C</i> , 2018, 122, 16879-16886.  | 3.1 | 10        |
| 26 | Sensing of halogenated aromatic hydrocarbons in water with a cavitand coated piezoelectric device. <i>Sensors and Actuators B: Chemical</i> , 2018, 276, 340-348.  | 7.8 | 10        |
| 27 | The development of sol-gel derived TiO <sub>2</sub> thin films and corresponding memristor architectures. <i>RSC Advances</i> , 2017, 7, 1654-1663.  | 3.6 | 24        |
| 28 | Graphene oxide prepared by graphene nanoplatelets and reduced by laser treatment. <i>Nanotechnology</i> , 2017, 28, 224002.  | 2.6 | 53        |
| 29 | Functionalization of SiC/SiO <sub>x</sub> nanowires with a porphyrin derivative: a hybrid nanosystem for X-ray induced singlet oxygen generation. <i>Molecular Systems Design and Engineering</i> , 2017, 2, 165-172.                | 3.4 | 11        |
| 30 | Primary cortical neurons on PMCS TiO <sub>2</sub> films towards bio-hybrid memristive device: A morpho-functional study. <i>Biophysical Chemistry</i> , 2017, 229, 115-122.  | 2.8 | 9         |
| 31 | Spectrophotometric method for optical band gap and electronic transitions determination of semiconductor materials. <i>Optical Materials</i> , 2017, 64, 18-25.  | 3.6 | 109       |
| 32 | Structural Characterizations of Palladium Clusters Prepared by Polyol Reduction of [PdCl <sub>4</sub> ] <sup>2-</sup> Ions. <i>Journal of Analytical Methods in Chemistry</i> , 2016, 2016, 1-6.                                     | 1.6 | 9         |
| 33 | Synthesis of single layer graphene on Cu(111) by C <sub>60</sub> supersonic molecular beam epitaxy. <i>RSC Advances</i> , 2016, 6, 37982-37993.  | 3.6 | 31        |
| 34 | The Interaction of C <sub>60</sub> on Si(111) Studied by Supersonic Molecular Beams: Interplay between Precursor Kinetic Energy and Substrate Temperature in Surface Activated Processes. <i>Frontiers in Materials</i> , 2015, 2, . | 2.4 | 5         |
| 35 | Synthesis of palladium clusters by reduction of K <sub>2</sub> PdCl <sub>4</sub> with ethylene glycol. , 2015, , .   |     | 1         |
| 36 | Optimization of synthesis protocols to control the nanostructure and the morphology of metal oxide thin films for memristive applications. <i>AIP Conference Proceedings</i> , 2015, , .   | 0.4 | 4         |

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|----|---|------|-----------|
| 37 | XAS of tetrakis(phenyl)- and tetrakis(pentafluorophenyl)-porphyrin: an experimental and theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 2001-2011.  | 2.8  | 10        |
| 38 | Logic with memory: and gates made of organic and inorganic memristive devices. <i>Semiconductor Science and Technology</i> , 2014, 29, 104009.  | 2.0  | 25        |
| 39 | High mobility <i>n</i> -type organic thin-film transistors deposited at room temperature by supersonic molecular beam deposition. <i>Applied Physics Letters</i> , 2014, 104, .   | 3.3  | 18        |
| 40 | Tracking the Hydrogen Motion in Defective Graphene. <i>Journal of Physical Chemistry C</i> , 2014, 118, 7110-7116.  | 3.1  | 26        |
| 41 | Carbon-doped SiO <sub>2</sub> nanowires with a large yield of white emission. <i>Nanotechnology</i> , 2014, 25, 185704.   | 2.6  | 16        |
| 42 | Electronic properties of CuPc and H <sub>2</sub> Pc: an experimental and theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 12864.   | 2.8  | 51        |
| 43 | Optimization of a buffer layer for cubic silicon carbide growth on silicon substrates. <i>Journal of Crystal Growth</i> , 2013, 383, 84-94.   | 1.5  | 32        |
| 44 | Electronic properties of tetrakis(pentafluorophenyl)porphyrin. <i>New Journal of Chemistry</i> , 2013, 37, 1036.  | 2.8  | 23        |
| 45 | Non-adiabatic <i>ab initio</i> molecular dynamics of supersonic beam epitaxy of silicon carbide at room temperature. <i>Journal of Chemical Physics</i> , 2013, 138, 044701.  | 3.0  | 12        |
| 46 | Emission Enhancement of SiC/SiO <sub>2</sub> Core/Shell Nanowires Induced by the Oxide Shell. <i>Materials Science Forum</i> , 2012, 717-720, 557-560.  | 0.3  | 1         |
| 47 | Surface doping in T6/PDI-8CN2 heterostructures investigated by transport and photoemission measurements. <i>Applied Physics Letters</i> , 2012, 101, .  | 3.3  | 12        |
| 48 | Excitonic recombination in superstoichiometric nanocrystalline TiO <sub>2</sub> grown by cluster precursors at room temperature. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 5705.   | 2.8  | 6         |
| 49 | Epitaxy of Nanocrystalline Silicon Carbide on Si(111) at Room Temperature. <i>Journal of the American Chemical Society</i> , 2012, 134, 17400-17403.  | 13.7 | 30        |
| 50 | Enhancement of the core near-band-edge emission induced by an amorphous shell in coaxial one-dimensional nanostructure: the case of SiC/SiO <sub>2</sub> core/shell self-organized nanowires. <i>Nanotechnology</i> , 2010, 21, 345702. | 2.6  | 37        |
| 51 | Tetraphenylporphyrin electronic properties: a combined theoretical and experimental study of thin films deposited by SuMBD. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 871-880.   | 2.8  | 24        |
| 52 | Activation and control of organolanthanide synthesis by supersonic molecular beams: Erbium-porphyrin test case. <i>Physical Review B</i> , 2009, 79, .  | 3.2  | 18        |
| 53 | Deposition from Supersonic Beams (SuMBE): a Kinetic Approach for Controlling Thin Film Properties. <i>AIP Conference Proceedings</i> , 2005, .  | 0.4  | 1         |
| 54 | Morphological and optical properties of titanyl phthalocyanine films deposited by supersonic molecular beam epitaxy (SuMBE). <i>Surface Science</i> , 2004, 573, 346-358.   | 1.9  | 33        |

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|----|---|-----|-----------|
| 55 | Titanium dioxide thin films prepared by seeded supersonic beams for gas sensing applications. <i>Sensors and Actuators B: Chemical</i> , 2004, 100, 177-184.  | 7.8 | 24        |
| 56 | Fullerene freejets-based synthesis of silicon carbide: heteroepitaxial growth on Si(111) at low temperatures. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 101, 169-173. | 3.5 | 5         |
| 57 | SiC film growth on Si(111) by supersonic beams of C 60. <i>European Physical Journal B</i> , 2002, 26, 509-514.   | 1.5 | 6         |
| 58 | EXAFS analysis of ultrathin Fe films grown on Ni(100). <i>Surface Science</i> , 2001, 487, 258-266.   | 1.9 | 4         |
| 59 | SiC(1 0 0) ordered film growth by C60 decomposition on Si(1 0 0) surfaces. <i>Applied Surface Science</i> , 2001, 184, 50-54.   | 6.1 | 6         |
| 60 | Synthesis of SiC on Si(111) at moderate temperatures by supersonic C60 beams. <i>Applied Surface Science</i> , 2001, 184, 350-355.  | 6.1 | 21        |
| 61 | Interface magnetometry in a (Fe6Å.../Ni24Å...)10 multilayer. <i>Applied Surface Science</i> , 2001, 175-176, 281-287.   | 6.1 | 2         |
| 62 | Triode electron bombardment evaporation source for ultrahigh vacuum thin film deposition. <i>Review of Scientific Instruments</i> , 2000, 71, 3444-3450.  | 1.3 | 24        |
| 63 | Growth of Fe ultrathin films on Ni(111): structure and electronic properties. <i>Surface Science</i> , 2000, 454-456, 692-696.  | 1.9 | 22        |
| 64 | Electron capture on surfaces with electronegative adsorbates and surface poisoning. <i>Surface Science</i> , 1998, 397, 361-373.  | 1.9 | 15        |
| 65 | Local effects in electron capture processes of fluorine atoms interacting with an oxidised Mg surface. <i>Europhysics Letters</i> , 1997, 40, 329-336.  | 2.0 | 8         |
| 66 | PLV and LMMA Auger emission induced by Ar+ impact on the InP(110) surface. <i>Physical Review B</i> , 1997, 56, 15272-15276.  | 3.2 | 1         |
| 67 | Electron Capture and Loss Processes in the Interaction of Hydrogen, Oxygen, and Fluorine Atoms and Negative Ions with a MgO(100) Surface. <i>Physical Review Letters</i> , 1997, 79, 3526-3529.                               | 7.8 | 63        |
| 68 | Oxidation of Mg and electron transfer processes. <i>Surface Science</i> , 1997, 380, L521-L526.   | 1.9 | 12        |
| 69 | Particle-induced Auger emission from Si monolayers. <i>Surface Science</i> , 1996, 352-354, 719-723.  | 1.9 | 0         |
| 70 | Auger emission by impact of energetic atoms on Si monolayer(s). <i>Surface Science</i> , 1996, 365, 517-524.  | 1.9 | 1         |
| 71 | Substrate amorphization induced by the sputter deposition process: Geometrical aspects. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995, 13, 394-399.                                    | 2.1 | 6         |
| 72 | Surface sensitivity of ion-induced Auger electron emission (IAE) spectroscopy. <i>Surface Science</i> , 1995, 331-333, 1256-1261.   | 1.9 | 3         |

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|----|---|-----|-----------|
| 73 | Ex-situ XPS-investigation of the interface between PE-CVD SiO <sub>2</sub> and wet chemically etched MO-CVD epitaxial layers of In <sub>0.53</sub> Ga <sub>0.47</sub> As. Fresenius' Journal of Analytical Chemistry, 1995, 353, 647-654. | 1.5 | 1         |
| 74 | Ion bombardment influence on the Cr Auger autoionization structure. Solid State Communications, 1993, 86, 695-698.  | 1.9 | 2         |
| 75 | Effect of the incidence geometry on the ion induced Ni-silicides surface compositional modifications. Nuclear Instruments & Methods in Physics Research B, 1993, 80-81, 877-880.  | 1.4 | 1         |
| 76 | Ion Beam-Stimulated Auger Electron Emission from Cr and Cr-Silicides. Physica Scripta, 1992, T41, 246-250.  | 2.5 | 7         |
| 77 | Ar <sup>+</sup> -induced silicon Auger spectra: a probe for the sputter-related collisional and emission processes. Nuclear Instruments & Methods in Physics Research B, 1991, 59-60, 37-40.  | 1.4 | 6         |