

Marco Govoni

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/623701/publications.pdf>

Version: 2024-02-01

73
papers

2,834
citations

172457

29
h-index

175258

52
g-index

74
all docs

74
docs citations

74
times ranked

3340
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-consistent hybrid functional for condensed systems. <i>Physical Review B</i> , 2014, 89, .	3.2	341
2	Large Scale GW Calculations. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 2680-2696.	5.3	255
3	Implementation and Validation of Fully Relativistic $\langle i \rangle$ GW $\langle /i \rangle$ Calculations: Spin-Orbit Coupling in Molecules, Nanocrystals, and Solids. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 3523-3544.	5.3	156
4	Nonempirical range-separated hybrid functionals for solids and molecules. <i>Physical Review B</i> , 2016, 93, .	3.2	125
5	Electron affinity of liquid water. <i>Nature Communications</i> , 2018, 9, 247.	12.8	114
6	Carrier multiplication between interacting nanocrystals for fostering silicon-based photovoltaics. <i>Nature Photonics</i> , 2012, 6, 672-679.	31.4	111
7	Quantum simulations of materials on near-term quantum computers. <i>Npj Computational Materials</i> , 2020, 6, .	8.7	99
8	Hyaluronan and cardiac regeneration. <i>Journal of Biomedical Science</i> , 2014, 21, 100.	7.0	66
9	Photoelectron Spectra of Aqueous Solutions from First Principles. <i>Journal of the American Chemical Society</i> , 2016, 138, 6912-6915.	13.7	64
10	The role of defects and excess surface charges at finite temperature for optimizing oxide photoabsorbers. <i>Nature Materials</i> , 2018, 17, 1122-1127.	27.5	61
11	Priming adult stem cells by hypoxic pretreatments for applications in regenerative medicine. <i>Journal of Biomedical Science</i> , 2013, 20, 63.	7.0	58
12	GW100: Comparison of Methods and Accuracy of Results Obtained with the WEST Code. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 1895-1909.	5.3	58
13	^{<sup />} An Engineered Multiphase Three-Dimensional Microenvironment to Ensure the Controlled Delivery of Cyclic Strain and Human Growth Differentiation Factor 5 for the Tenogenic Commitment of Human Bone Marrow Mesenchymal Stem Cells. <i>Tissue Engineering - Part A</i> , 2017, 23, 811-822.	3.1	51
14	Fundamental principles for calculating charged defect ionization energies in ultrathin two-dimensional materials. <i>Physical Review Materials</i> , 2018, 2, .	2.4	50
15	Generalization of Dielectric-Dependent Hybrid Functionals to Finite Systems. <i>Physical Review X</i> , 2016, 6, .	8.9	49
16	Electronic structure of aqueous solutions: Bridging the gap between theory and experiments. <i>Science Advances</i> , 2017, 3, e1603210.	10.3	49
17	OPTIMADE, an API for exchanging materials data. <i>Scientific Data</i> , 2021, 8, 217.	5.3	49
18	Ethanol disinfection affects physical properties and cell response of electrospun poly(l-lactic acid) scaffolds. <i>European Polymer Journal</i> , 2012, 48, 2008-2018.	5.4	46

#	ARTICLE	IF	CITATIONS
19	Design of defect spins in piezoelectric aluminum nitride for solid-state hybrid quantum technologies. <i>Scientific Reports</i> , 2016, 6, 20803.	3.3	46
20	Quantum Embedding Theory for Strongly Correlated States in Materials. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 2116-2125.	5.3	45
21	Designing defect-based qubit candidates in wide-gap binary semiconductors for solid-state quantum technologies. <i>Physical Review Materials</i> , 2017, 1, .	2.4	43
22	Poly(butylene/diethylene glycol succinate) multiblock copolyester as a candidate biomaterial for soft tissue engineering: Solid-state properties, degradability, and biocompatibility. <i>Journal of Bioactive and Compatible Polymers</i> , 2012, 27, 244-264.	2.1	41
23	Auger recombination in Si and GaAs semiconductors: <i>Ab initio</i> results. <i>Physical Review B</i> , 2011, 84, .	3.2	36
24	Molecular architecture and solid-state properties of novel biocompatible PBS-based copolyesters containing sulphur atoms. <i>Reactive and Functional Polymers</i> , 2012, 72, 856-867.	4.1	36
25	Dielectric-dependent hybrid functionals for heterogeneous materials. <i>Physical Review Materials</i> , 2019, 3, .	2.4	36
26	Finite-Field Approach to Solving the Bethe-Salpeter Equation. <i>Physical Review Letters</i> , 2019, 122, 237402.	7.8	35
27	Performance and Self-Consistency of the Generalized Dielectric Dependent Hybrid Functional. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 3318-3325.	5.3	33
28	Mechanostimulation Protocols for Cardiac Tissue Engineering. <i>BioMed Research International</i> , 2013, 2013, 1-10.	1.9	31
29	Commercial Bone Grafts Claimed as an Alternative to Autografts: Current Trends for Clinical Applications in Orthopaedics. <i>Materials</i> , 2021, 14, 3290.	2.9	30
30	Red-Shifted Carrier Multiplication Energy Threshold and Exciton Recycling Mechanisms in Strongly Interacting Silicon Nanocrystals. <i>Journal of the American Chemical Society</i> , 2014, 136, 13257-13266.	13.7	29
31	Photoluminescence spectra of point defects in semiconductors: Validation of first-principles calculations. <i>Physical Review Materials</i> , 2021, 5, .	2.4	29
32	Difluoromethylornithine stimulates early cardiac commitment of mesenchymal stem cells in a model of mixed culture with cardiomyocytes. <i>Journal of Cellular Biochemistry</i> , 2008, 103, 1046-1052.	2.6	24
33	Electrospun Scaffolds of a Polyhydroxyalkanoate Consisting of 100% Hydroxypentadecanoate Repeat Units: Fabrication and In Vitro Biocompatibility Studies. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010, 21, 1283-1296.	3.5	24
34	Strategies Affording Prevascularized Cell-Based Constructs for Myocardial Tissue Engineering. <i>Stem Cells International</i> , 2014, 2014, 1-8.	2.5	24
35	Qresp, a tool for curating, discovering and exploring reproducible scientific papers. <i>Scientific Data</i> , 2019, 6, 190002.	5.3	24
36	Mechanical Actuation Systems for the Phenotype Commitment of Stem Cell-Based Tendon and Ligament Tissue Substitutes. <i>Stem Cell Reviews and Reports</i> , 2016, 12, 189-201.	5.6	23

#	ARTICLE	IF	CITATIONS
37	Novel biocompatible PBS-based random copolymers containing PEG-like sequences for biomedical applications: From drug delivery to tissue engineering. <i>Polymer Degradation and Stability</i> , 2018, 153, 53-62.	5.8	23
38	First-principles studies of strongly correlated states in defect spin qubits in diamond. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 25522-25527.	2.8	22
39	Epigenetic Signature of Early Cardiac Regulatory Genes in Native Human Adipose-Derived Stem Cells. <i>Cell Biochemistry and Biophysics</i> , 2013, 67, 255-262.	1.8	21
40	A Finite-Field Approach for $\langle i \rangle GW \langle /i \rangle$ Calculations beyond the Random Phase Approximation. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 154-164.	5.3	21
41	An innovative stand-alone bioreactor for the highly reproducible transfer of cyclic mechanical stretch to stem cells cultured in a 3D scaffold. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2014, 8, 787-793.	2.7	20
42	The effect of plasma surface modification on the biodegradation rate and biocompatibility of a poly(butylene succinate)-based copolymer. <i>Polymer Degradation and Stability</i> , 2015, 121, 271-279.	5.8	20
43	Biocompatible multiblock aliphatic polyesters containing ether-linkages: influence of molecular architecture on solid-state properties and hydrolysis rate. <i>RSC Advances</i> , 2014, 4, 32965-32976.	3.6	18
44	Simulating the Electronic Structure of Spin Defects on Quantum Computers. <i>PRX Quantum</i> , 2022, 3, .	9.2	18
45	First-principles calculations of electronic coupling effects in silicon nanocrystals: Influence on near band-edge states and on carrier multiplication processes. <i>Solar Energy Materials and Solar Cells</i> , 2016, 145, 162-169.	6.2	17
46	Design Techniques to Optimize the Scaffold Performance: Freeze-dried Bone Custom-made Allografts for Maxillary Alveolar Horizontal Ridge Augmentation. <i>Materials</i> , 2020, 13, 1393.	2.9	17
47	Green's Function Formulation of Quantum Defect Embedding Theory. <i>Journal of Chemical Theory and Computation</i> , 2022, 18, 3512-3522.	5.3	17
48	Machine learning dielectric screening for the simulation of excited state properties of molecules and materials. <i>Chemical Science</i> , 2021, 12, 4970-4980.	7.4	16
49	Induction of NO synthase 2 in ventricular cardiomyocytes incubated with a conventional bicarbonate dialysis bath. <i>Nephrology Dialysis Transplantation</i> , 2008, 23, 2192-2197.	0.7	15
50	Overexpression of ornithine decarboxylase increases myogenic potential of H9c2 rat myoblasts. <i>Amino Acids</i> , 2010, 38, 541-547.	2.7	15
51	Carrier multiplication in silicon nanocrystals: ab initio results. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 343-352.	2.8	15
52	Demineralized bone matrix paste formulated with biomimetic PLGA microcarriers for the vancomycin hydrochloride controlled delivery: Release profile, cytotoxicity and efficacy against <i>S. aureus</i> . <i>International Journal of Pharmaceutics</i> , 2020, 582, 119322.	5.2	15
53	The molecular mechanism of the cholesterol-lowering effect of dill and kale: The influence of the food matrix components. <i>Electrophoresis</i> , 2016, 37, 1805-1813.	2.4	12
54	Quantum vibronic effects on the electronic properties of solid and molecular carbon. <i>Physical Review Materials</i> , 2021, 5, .	2.4	12

#	ARTICLE	IF	CITATIONS
55	A Comprehensive Microstructural and Compositional Characterization of Allogenic and Xenogenic Bone: Application to Bone Grafts and Nanostructured Biomimetic Coatings. <i>Coatings</i> , 2020, 10, 522.	2.6	11
56	Coupling First-Principles Calculations of Electron-Phonon Scattering, and Applications to Carbon-Based Nanostructures. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 6269-6275.	5.3	10
57	PyCDFT : A Python package for constrained density functional theory. <i>Journal of Computational Chemistry</i> , 2020, 41, 1859-1867.	3.3	10
58	PyZFS: A Python package for first-principles calculations of zero-field splitting tensors. <i>Journal of Open Source Software</i> , 2020, 5, 2160.	4.6	10
59	Communication: Dielectric properties of condensed systems composed of fragments. <i>Journal of Chemical Physics</i> , 2018, 149, 051101.	3.0	9
60	Fresh Osteochondral Allograft Transplantation in Osteochondritis Dissecans in the Knee Joint. <i>Life</i> , 2021, 11, 1205.	2.4	9
61	Molecular mechanisms of ischemic preconditioning and postconditioning as putative therapeutic targets to reduce tumor survival and malignancy. <i>Medical Hypotheses</i> , 2013, 81, 1141-1145.	1.5	8
62	Code interoperability extends the scope of quantum simulations. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	8
63	Fiber Thickness and Porosity Control in a Biopolymer Scaffold 3D Printed through a Converted Commercial FDM Device. <i>Materials</i> , 2022, 15, 2394.	2.9	8
64	Comparison of a fast track protocol and standard care after hip arthroplasty in the reduction of the length of stay and the early weight-bearing resumption: study protocol for a randomized controlled trial. <i>Trials</i> , 2021, 22, 348.	1.6	7
65	Brillouin and Raman Micro-Spectroscopy: A Tool for Micro-Mechanical and Structural Characterization of Cortical and Trabecular Bone Tissues. <i>Materials</i> , 2021, 14, 6869.	2.9	7
66	Improving the efficiency of GOWO calculations with approximate spectral decompositions of dielectric matrices. <i>Journal of Chemical Physics</i> , 2019, 151, 224102.	3.0	6
67	Combined First-Principles Calculations of Electron-Phonon Self-Energies in Condensed Systems. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 7468-7476.	5.3	6
68	Extra-Corporeal Membrane Oxygenation Cadaver Donors: What about Tissues Used as Allografts?. <i>Membranes</i> , 2021, 11, 545.	3.0	5
69	Carrier Multiplication in Silicon Nanocrystals: Theoretical Methodologies and Role of the Passivation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2017, 14, 1700198.	0.8	5
70	MatD ³ : A Database and Online Presentation Package for Research Data Supporting Materials Discovery, Design, and Dissemination. <i>Journal of Open Source Software</i> , 2020, 5, 1945.	4.6	2
71	Do Pomegranate Hydrolyzable Tannins and Their Derived Metabolites Provide Relief in Osteoarthritis? Findings from a Scoping Review. <i>Molecules</i> , 2022, 27, 1033.	3.8	2
72	Custom Massive Allograft in a Case of Pelvic Bone Tumour: Simulation of Processing with Computerised Numerical Control vs. Robotic Machining. <i>Journal of Clinical Medicine</i> , 2022, 11, 2781.	2.4	2

#	ARTICLE	IF	CITATIONS
73	Quality Control Platform for the Standardization of a Regenerative Medicine Product. Bioengineering, 2022, 9, 142.	3.5	1