Marco Villani

List of Publications by Year
in descending order

80 papers	2,354 citations	218592 26 h-index	233338 45 g-index
81 all docs	81 docs citations	81 times ranked	2881 citing authors

#	Article	IF	Citations
1	Engineered Nanomaterial Exposure Affects Organelle Genetic Material Replication in <i>Arabidopsis thaliana</i>. ACS Nano, 2022, 16, 2249-2260.	7.3	18
2	Cadmium Sulfide Quantum Dots Adversely Affect Gametogenesis in Saccharomyces cerevisiae. Nanomaterials, 2022, 12, 2208.	1.9	3
3	Evaluating the plasmon-exciton interaction in ZnO tetrapods coupled with gold nanostructures by nanoscale cathodoluminescence. Nano Express, 2021, 2, 014004.	1.2	1
4	All-Polymeric Pressure Sensors Based on PEDOT:PSS-Modified Polyurethane Foam. ACS Applied Polymer Materials, 2021, 3, 1563-1572.	2.0	23
5	Comparative Analysis of Proteins Regulated during Cadmium Sulfide Quantum Dots Response in Arabidopsis thaliana Wild Type and Tolerant Mutants. Nanomaterials, 2021, 11, 615.	1.9	9
6	Fabrication of ZnO-nanowire-coated thin-foil targets for ultra-high intensity laser interaction experiments. Matter and Radiation at Extremes, 2021, 6, .	1.5	6
7	Cadmium sulfide quantum dots impact Arabidopsis thaliana physiology and morphology. Chemosphere, 2020, 240, 124856.	4.2	23
8	Ion selective textile organic electrochemical transistor for wearable sweat monitoring. Organic Electronics, 2020, 78, 105579.	1.4	57
9	Improved electroless platinum contacts on CdZnTe X- and Î³-rays detectors. Scientific Reports, 2020, 10, 13762.	1.6	8
10	Proteomic Analysis Identifies Markers of Exposure to Cadmium Sulphide Quantum Dots (CdS QDs). Nanomaterials, 2020, 10, 1214.	1.9	5
11	The fate of CdS quantum dots in plants as revealed by extended X-ray absorption fine structure (EXAFS) analysis. Environmental Science: Nano, 2020, 7, 1150-1162.	2.2	16
12	Differences in toxicity, mitochondrial function and miRNome in human cells exposed in vitro to Cd as CdS quantum dots or ionic Cd. Journal of Hazardous Materials, 2020, 393, 122430.	6.5	21
13	Selecting for Positive Responses to Knock Outs in Boolean Networks. Communications in Computer and Information Science, 2020, , 7-16.	0.4	1
14	Evolving Critical Boolean Networks. Communications in Computer and Information Science, 2019, , 17-29.	0.4	3
15	Kinetic Rate Constants of Gold Nanoparticle Deposition on Silicon. Langmuir, 2019, 35, 14258-14265.	1.6	4
16	Proteomic, gene and metabolite characterization reveal the uptake and toxicity mechanisms of cadmium sulfide quantum dots in soybean plants. Environmental Science: Nano, 2019, 6, 3010-3026.	2.2	37
17	Transforming diatomaceous earth into sensing devices by surface modification with gold nanoparticles. Micro and Nano Engineering, 2019, 2, 29-34.	1.4	5
18	In Vivo-In Vitro Comparative Toxicology of Cadmium Sulphide Quantum Dots in the Model Organism Saccharomyces cerevisiae. Nanomaterials, 2019, 9, 512.	1.9	10

#	Article	IF	Citations
19	Cortical-like mini-columns of neuronal cells on zinc oxide nanowire surfaces. Scientific Reports, 2019, 9, 4021.	1.6	18
20	Surface coating determines the response of soybean plants to cadmium sulfide quantum dots. NanoImpact, 2019, 14, 100151.	2.4	28
21	Dynamical Criticality: Overview and Open Questions. Journal of Systems Science and Complexity, 2018, 31, 647-663.	1.6	60
22	Ring-shaped corona proteins influence the toxicity of engineered nanoparticles to yeast. Environmental Science: Nano, 2018, 5, 1428-1440.	2.2	18
23	Dynamical Criticality in Gene Regulatory Networks. Complexity, 2018, 2018, 1-14.	0.9	23
24	Functionalization of carbon fiber tows with ZnO nanorods for stress sensor integration in smart composite materials. Nanotechnology, 2018, 29, 335501.	1.3	16
25	Dynamical Properties of a Gene-Protein Model. Communications in Computer and Information Science, 2018, , 142-152.	0.4	5
26	Growth and characterization of Î²-Ga2O3 nanowires obtained on not-catalyzed and Au/Pt catalyzed substrates. Journal of Crystal Growth, 2017, 457, 255-261.	0.7	12
27	Dynamical regimes in non-ergodic random Boolean networks. Natural Computing, 2017, 16, 353-363.	1.8	12
28	Smart composites materials: A new idea to add gas-sensing properties to commercial carbon-fibers by functionalization with ZnO nanowires. Sensors and Actuators B: Chemical, 2017, 245, 166-170.	4.0	17
29	Nucleo-mitochondrial interaction of yeast in response to cadmium sulfide quantum dot exposure. Journal of Hazardous Materials, 2017, 324, 744-752.	6.5	33
30	Exposure of Cucurbita pepo to binary combinations of engineered nanomaterials: physiological and molecular response. Environmental Science: Nano, 2017, 4, 1579-1590.	2.2	40
31	An in vivo biosensing, biomimetic electrochemical transistor with applications in plant science and precision farming. Scientific Reports, 2017, 7, 16195.	1.6	67
32	Enzymatic sensing with laccase-functionalized textile organic biosensors. Organic Electronics, 2017, 40, 51-57.	1.4	49
33	Modeling, Fabrication and Testing of a Customizable Micromachined Hotplate for Sensor Applications. Sensors, 2017, 17, 62.	2.1	21
34	Automatic Design of Boolean Networks for Cell Differentiation. Communications in Computer and Information Science, 2017, , 91-102.	0.4	6
35	Tailoring super-hydrophobic properties of electrochemical biosensor for early cancer detection. MRS Advances, 2016, 1, 3545-3552.	0.5	4
36	A new method to integrate ZnO nano-tetrapods on MEMS micro-hotplates for large scale gas sensor production. Nanotechnology, 2016, 27, 385503.	1.3	17

#	ARTICLE	IF	CITATIONS
37	Multiscale modification of the conductive PEDOT:PSS polymer for the analysis of biological mixtures in a super-hydrophobic drop. Microelectronic Engineering, 2016, 158, 80-84.	1.1	3
38	A theoretical model for the time varying current in organic electrochemical transistors in a dynamic regime. Organic Electronics, 2016, 35, 59-64.	1.4	23
39	Geometrical Patterning of Super-Hydrophobic Biosensing Transistors Enables Space and Time Resolved Analysis of Biological Mixtures. Scientific Reports, 2016, 6, 18992.	1.6	17
40	Nanoscale mapping of plasmon and exciton in ZnO tetrapods coupled with Au nanoparticles. Scientific Reports, 2016, 6, 19168.	1.6	27
41	Turning carbon fiber into a stress-sensitive composite material. Journal of Materials Chemistry A, 2016, 4, 10486-10492.	5.2	8
42	Dynamically Critical Systems and Power-Law Distributions: Avalanches Revisited. Communications in Computer and Information Science, 2016, , 29-39.	0.4	6
43	The Proteomic Response of Arabidopsis thaliana to Cadmium Sulfide Quantum Dots, and Its Correlation with the Transcriptomic Response. Frontiers in Plant Science, 2015, 6, 1104.	1.7	48
44	Branched gold nanoparticles on ZnO 3D architecture as biomedical SERS sensors. RSC Advances, 2015, 5, 93644-93651.	1.7	30
45	Dynamical Properties of Artificially Evolved Boolean Network Robots. Lecture Notes in Computer Science, 2015, , 45-57.	1.0	5
46	Microtexturing of the Conductive PEDOT:PSS Polymer for Superhydrophobic Organic Electrochemical Transistors. BioMed Research International, 2014, 2014, 1-10.	0.9	19
47	Human stress monitoring through an organic cotton-fiber biosensor. Journal of Materials Chemistry B, 2014, 2, 5620-5626.	2.9	107
48	Controllable vapor phase growth of vertically aligned ZnO nanorods on TCO/Glass substrates. Crystal Research and Technology, 2014, 49, 558-563.	0.6	5
49	Facile synthesis of hierarchical CuO nanostructures with enhanced photocatalytic activity. Crystal Research and Technology, 2014, 49, 594-598.	0.6	11
50	InZnO nanorods obtained via zinc vapour phase deposition on liquid indium seeded substrates. CrystEngComm, 2014, 16, 1696.	1.3	2
51	Selective response inversion to NO₂and acetic acid in ZnO and CdS nanocomposite gas sensor. Nanotechnology, 2014, 25, 365502.	1.3	19
52	Genome-Wide Approach in <i>Arabidopsis thaliana</i> to Assess the Toxicity of Cadmium Sulfide Quantum Dots. Environmental Science & Technology, 2014, 48, 5902-5909.	4.6	76
53	Diffusion Driven Selectivity in Organic Electrochemical Transistors. Scientific Reports, 2014, 4, 4297.	1.6	48
54	Zn vacancy induced green luminescence on non-polar surfaces in ZnO nanostructures. Scientific Reports, 2014, 4, 5158.	1.6	144

#	Article	IF	Citations
55	Dynamical regimes and learning properties of evolved Boolean networks. Neurocomputing, 2013, 99, 111-123.	3.5	25
56	Oriented orthorhombic Lead Oxide film grown by vapour phase deposition for Xâ€ray detector applications. Crystal Research and Technology, 2013, 48, 245-250.	0.6	7
57	Composite multifunctional nanostructures based on ZnO tetrapods and superparamagnetic Fe₃O₄nanoparticles. Nanotechnology, 2013, 24, 135601.	1.3	17
58	Low Temperature Sensing Properties of a Nano Hybrid Material Based on ZnO Nanotetrapods and Titanyl Phthalocyanine. Sensors, 2013, 13, 3445-3453.	2.1	20
59	Solution-free and catalyst-free synthesis of ZnO-based nanostructured TCOs by PED and vapor phase growth techniques. Nanotechnology, 2012, 23, 194008.	1.3	20
60	Extended functionality of ZnO nanotetrapods by solution-based coupling with CdS nanoparticles. Journal of Materials Chemistry, 2012, 22, 5694.	6.7	42
61	Organic electrochemical transistors monitoring micelle formation. Chemical Science, 2012, 3, 3432.	3.7	45
62	A single cotton fiber organic electrochemical transistor for liquid electrolyte saline sensing. Journal of Materials Chemistry, 2012, 22, 23830.	6.7	99
63	Directionally Selective Sensitization of ZnO Nanorods by TiOPc: A Novel Approach to Functionalized Nanosystems. Journal of Physical Chemistry C, 2012, 116, 8223-8229.	1.5	6
64	Non-interacting hard ferromagnetic L10 FePt nanoparticles embedded in a carbon matrix. Journal of Materials Chemistry, 2011, 21, 18331.	6.7	10
65	Robustness Analysis of a Boolean Model of Gene Regulatory Network with Memory. Journal of Computational Biology, 2011, 18, 559-577.	0.8	30
66	Low temperature thermal evaporation growth of aligned ZnO nanorods on ZnO film: a growth mechanism promoted by Zn nanoclusters on polar surfaces. CrystEngComm, 2011, 13, 1707-1712.	1.3	44
67	Aldehyde detection by ZnO tetrapod-based gas sensors. Journal of Materials Chemistry, 2011, 21, 15532.	6.7	85
68	Cellâ€“cell interaction and diversity of emergent behaviours. IET Systems Biology, 2011, 5, 137-144.	0.8	34
69	Pd/PdO functionalization of SnO₂ nanowires and ZnO nanotetrapods. Crystal Research and Technology, 2011, 46, 847-851.	0.6	8
70	Dynamical Properties of a Boolean Model of Gene Regulatory Network with Memory. Journal of Computational Biology, 2011, 18, 1291-1303.	0.8	56
71	A Dynamical Model of Genetic Networks for Cell Differentiation. PLoS ONE, 2011, 6, e17703.	1.1	57
72	Vapourâ€phase growth, purification and largeâ€area deposition of ZnO tetrapod nanostructures. Crystal Research and Technology, 2010, 45, 667-671.	0.6	14

#	Article	IF	Citations
73	On the dynamics of random Boolean networks subject to noise: Attractors, ergodic sets and cell types. Journal of Theoretical Biology, 2010, 265, 185-193.	0.8	98
74	Information Transfer among Coupled Random Boolean Networks. Lecture Notes in Computer Science, 2010, , 1-11.	1.0	12
75	The simulation of gene knock-out in scale-free random Boolean models of genetic networks. Networks and Heterogeneous Media, 2008, 3, 333-343.	0.5	15
76	Why a simple model of genetic regulatory networks describes the distribution of avalanches in gene expression data. Journal of Theoretical Biology, 2007, 246, 449-460.	0.8	119
77	On the dynamics of random Boolean networks with scale-free outgoing connections. Physica A: Statistical Mechanics and Its Applications, 2004, 339, 665-673.	1.2	30
78	Genetic network models and statistical properties of gene expression data in knock-out experiments. Journal of Theoretical Biology, 2004, 227, 149-157.	0.8	135
79	Perturbing the Regular Topology of Cellular Automata: Implications for the Dynamics. Lecture Notes in Computer Science, 2002, , 168-177.	1.0	13
80	Continuous genetic networks. Parallel Computing, 2001, 27, 663-683.	1.3	19