

# Ioan Marius Purcar

## List of Publications by Year in descending order

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49  
papers

313  
citations

1163117

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h-index

940533

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g-index

50  
all docs

50  
docs citations

50  
times ranked

186  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Multi-Scale Method for Thermo-Mechanical Simulation of Power Integrated Circuits. IEEE Journal of the Electron Devices Society, 2022, 10, 169-179.	2.1	2
2	Chip structure metallization impact on thermally induced faults in power IC devices. , 2021, , .		1
3	Experimental Stand for Sorting Components Dismantled from Printed Circuit Boards. Minerals (Basel,) Tj ETQq1 1 0,784314 rgBT /Over	2.0	4
4	The investigation by numerical simulation of thermal induced deformation in a double soldered chip structure. , 2021, , .		0
5	Advanced Recovery Techniques for Waste Materials from IT and Telecommunication Equipment Printed Circuit Boards. Sustainability, 2020, 12, 74.	3.2	50
6	Modelling Thermally-Induced Mechanical Faults in Power Integrated Circuits Assemblies. , 2020, , .		0
7	A Simplified Model for Approximating the Vias in the Thermo-Mechanical Simulation of Metal-Oxide-Semiconductor Structures. , 2019, , .		0
8	Modelling of Piezoelectric MEMS in Biomedical Applications. IFMBE Proceedings, 2019, , 109-114.	0.3	0
9	Efficient Computational Methodology of Thermo-Mechanical Phenomena in the Metal System of Power ICs. , 2019, , .		4
10	Polarity Determination of Electrolytic Capacitors in Power Supplies from external terminals. , 2019, , .		1
11	Extraction of Equivalent Mechanical Properties for Power ICs Metallization. , 2019, , .		3
12	A Simple Metal-Semiconductor Substructure Model for the Thermal Induced Fatigue Simulation in Power Integrated Circuits. Lecture Notes in Mechanical Engineering, 2019, , 21-36.	0.4	1
13	Electrolytic Capacitor Polarity Determination Based on Electrical Measurements. , 2018, , .		1
14	A simple metal-semiconductor substructure for the advanced thermo-mechanical numerical modeling of the power integrated circuits. Microelectronics Reliability, 2018, 87, 142-150.	1.7	8
15	Thermo-mechanical simulation of the metal-semiconductor structures of power integrated circuits. , 2017, , .		1
16	Study of the electromagnetic field distribution inside a HV/MV substation. , 2017, , .		1
17	Study of the shielding performances of different materials regarding Electromagnetic Field Interference. IOP Conference Series: Materials Science and Engineering, 2017, 200, 012045.	0.6	1
18	Numerical analysis of electro-thermal behavior and optimization of the cooling system in electronic power devices using CAD/CAE tools. , 2017, , .		3

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19	A simple metal-semiconductor substructure for the advanced thermo-mechanical numerical modeling of the power integrated circuits. , 2017, , .		1
20	A study of adaptive mesh refinement techniques for an efficient capture of the thermo-mechanical phenomena in power integrated circuits. , 2017, , .		4
21	CAD/CAE modeling of electromagnetic field distribution in hv substations and investigation of the human exposure. , 2016, , .		3
22	A two layer ground computational model for the numerical simulations of the earthing systems. , 2016, , .		0
23	XFEM BASED ALGORITHM FOR NUMERICAL OPTIMIZATION OF CURRENT DENSITY IN ELECTROCHEMICAL APPLICATIONS. Environmental Engineering and Management Journal, 2016, 15, 2587-2594.	0.6	0
24	Numerical optimization of an electrostatic device based on the 3D XFEM and genetic algorithm. , 2014, , .		6
25	The study of high frequency electromagnetic shielding performance by numerical modeling. , 2014, , .		2
26	AC interference assessment and impact on personnel safety. , 2014, , .		1
27	CAD/CAE modeling of the human exposure to electric field inside a high voltage substation. , 2014, , .		15
28	Optimal shape design of electrostatic microactuators: A multiobjective formulation. International Journal of Applied Electromagnetics and Mechanics, 2013, 43, 65-76.	0.6	7
29	Shape optimization approach based on the extended finite element method. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2012, 31, 477-497.	0.9	1
30	Optimisation of the layer thickness distribution in electrochemical processes using the level set method. IET Science, Measurement and Technology, 2012, 6, 376.	1.6	4
31	Simulation of the electrode shape change in electrochemical machining based on the level set method. EPJ Applied Physics, 2012, 58, 11301.	0.7	1
32	Analysis of the electromagnetic interferences between overhead power lines and buried pipelines. , 2012, , .		6
33	Electromagnetic field model for the numerical computation of voltages induced on buried pipelines by high voltage overhead power lines. EPJ Applied Physics, 2012, 58, 30902.	0.7	6
34	Optimization of the Current Density Distribution in Electrochemical Reactors. Mathematics in Industry, 2012, , 163-172.	0.3	0
35	Optimization of the current density distribution in electrochemical cells based on the level set method and genetic algorithm. EPJ Applied Physics, 2011, 56, 11302.	0.7	2
36	Optimization of the layer thickness distribution in electrochemical processes using the level set method. , 2011, , .		0

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37	COMPUTATION OF THE POTENTIAL INDUCED ON THE FLUID TRANSPORT PIPELINES BY OVERHEAD HIGH VOLTAGE LINES. Environmental Engineering and Management Journal, 2011, 10, 505-510.	0.6	1
38	Analysis of the power frequency electric field generated by high voltage substations. , 2010, , .		0
39	Advanced CAD integrated approach for 3D electrochemical machining simulations. Journal of Materials Processing Technology, 2008, 203, 58-71.	6.3	31
40	Electroforming simulations based on the level set method. EPJ Applied Physics, 2007, 39, 85-94.	0.7	7
41	3D cathodic protection design of ship hulls. WIT Transactions on Engineering Sciences, 2007, , .	0.0	0
42	Optimisation of an alternating current multi-conductor system. Engineering Analysis With Boundary Elements, 2006, 30, 582-587.	3.7	0
43	Simulation and experimental determination of the macro-scale layer thickness distribution of electrodeposited Cu-line patterns on a wafer substrate. Journal of Applied Electrochemistry, 2005, 35, 589-598.	2.9	11
44	Three-Dimensional Current Density Distribution Simulations for a Resistive Patterned Wafer. Journal of the Electrochemical Society, 2004, 151, D78.	2.9	17
45	3D electrochemical machining computer simulations. Journal of Materials Processing Technology, 2004, 149, 472-478.	6.3	65
46	A user-friendly simulation software tool for 3D ECM. Journal of Materials Processing Technology, 2004, 149, 486-492.	6.3	19
47	A new approach for shape optimization of resistors with complex geometry. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 1062-1069.	0.9	6
48	Computer Aided Design (CAD) Based Optimisation of Chromium Plating Processes for Complex Parts. Transactions of the Institute of Metal Finishing, 2004, 82, 133-136.	1.3	4
49	Numerical 3-D Simulation of a Cathodic Protection System for a Buried Pipe Segment Surrounded by a Load Relieving U-Shaped Vault. Corrosion, 2003, 59, 1019-1028.	1.1	11