Rafael Alonso

List of Publications by Year
in descending order

63 papers	1,521 citations	361413 20 h-index	315739 38 g-index
63 all docs	63 docs citations	63 times ranked	752 citing authors

#	Article	IF	Citations
1	Analysis of the Snow Water Equivalent at the AEMet-Formigal Field Laboratory (Spanish Pyrenees) During the 2019/2020 Winter Season Using a Stepped-Frequency Continuous Wave Radar (SFCW). Remote Sensing, 2021, 13, 616.	4.0	5
2	Snow Water Equivalent Evolution During the 2019/2020 Winter Period in Aemet-Formigal Test Site Using a SFCW Radar. , 2021, , .		2
3	Analysis Of Snow Water Equivalent (Swe) Of Snowpack By An Ultra Wide Band Step Frequency Continuous Wave Radar (Sfcw). , 2020, , .		3
4	High sensitivity infrared thermometry for precise temperature control in domestic induction cooktops. , 2019, , .		0
5	Semitransparent Decorative Coatings Based on Optical Interference of Metallic and Dielectric Thin Films for High Temperature Applications. Coatings, 2018, 8, 183.	2.6	1
6	Modeling of domestic induction heating systems with non-linear saturable loads. , 2017, , .		12
7	Design and Optimization of Small Inductors on Extra-Thin PCB for Flexible Cooking Surfaces. IEEE Transactions on Industry Applications, 2017, 53, 371-379.	4.9	15
8	Design and Implementation of a Test-Bench for Efficiency Measurement of Domestic Induction Heating Appliances. Energies, 2016, 9, 636.	3.1	3
9	Determination of oxygen diffusion in the SnO2/stainless steel interface of thin films by spectrophotometric measurements. Journal Physics D: Applied Physics, 2016, 49, 215302.	2.8	1
10	Design of efficient loads for domestic induction heating applications by means of non-magnetic thin metallic layers. , 2016, , .		2
11	Optical and electrical properties of stainless steel oxynitride thin films deposited in an in-line sputtering system. Applied Surface Science, 2016, 379, 249-258.	6.1	11
12	Analytical solution of the induced currents in multilayer cylindrical conductors under external electromagnetic sources. Applied Mathematical Modelling, 2016, 40, 10667-10678.	4.2	11
13	Calculation of losses in PCB windings for multi-coil contactless charging systems. , 2016, , .		0
14	Interference Emission Estimation of Domestic Induction Cookers Based on Finite-Element Simulation. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 993-999.	2.2	9
15	Portable Solar Spectrum Reflectometer for planar and parabolic mirrors in solar thermal energy plants. Solar Energy, 2016, 135, 446-454.	6.1	3
16	Normal-Mode Decomposition of Surface Power Distribution in Multiple-Coil Induction Heating Systems. IEEE Transactions on Magnetics, 2016, 52, 1-8.	2.1	12
17	Design and Implementation of PCB Inductors With Litz-Wire Structure for Conventional-Size Large-Signal Domestic Induction Heating Applications. IEEE Transactions on Industry Applications, 2015, 51, 2434-2442.	4.9	33
18	Optimized 4-coil inductor system arrangement for induction heating appliances. , 2015, , .		3

#	ARTICLE	IF	CITATIONS
19	Minimization of vias in PCB implementations of planar coils with litz-wire structure. , 2015, , .		8
20	Oxygen diffusion at high temperatures within the SnO2/Sst interlayer in sputtered thin films. Applied Surface Science, 2015, 359, 669-675.	6.1	3
21	Performance Evaluation of Graphite Thin Slabs for Induction Heating Domestic Applications. IEEE Transactions on Industry Applications, 2015, 51, 2398-2404.	4.9	8
22	Design and optimization of small inductors on extra-thin PCB for flexible cooking surfaces. , 2015, , .		2
23	Frequency-Dependent Resistance of Planar Coils in Printed Circuit Board With Litz Structure. IEEE Transactions on Magnetics, 2014, 50, 1-9.	2.1	45
24	Infrared Sensor-Based Temperature Control for Domestic Induction Cooktops. Sensors, 2014, 14, 5278-5295.	3.8	15
25	Radiation heat measurement model for temperature estimation in induction heating appliances. , 2014, , .		0
26	AC Power Losses Model for Planar Windings With Rectangular Cross-Sectional Conductors. IEEE Transactions on Power Electronics, 2014, 29, 23-28.	7.9	61
27	Infrared Thermometry System for Temperature Measurement in Induction Heating Appliances. IEEE Transactions on Industrial Electronics, 2014, 61, 2622-2630.	7.9	27
28	Performance evaluation of graphite thin slabs for induction heating domestic applications. , 2014, , .		0
29	FEA-Based Model of Elliptic Coils of Rectangular Cross Section. IEEE Transactions on Magnetics, 2014, 50, 1-7.	2.1	11
30	Printed circuit board implementation of small inductors for domestic induction heating applications using a planar litz wire structure. , 2013, , .		11
31	Quantitative Evaluation of Induction Efficiency in Domestic Induction Heating Applications. IEEE Transactions on Magnetics, 2013, 49, 1382-1389.	2.1	73
32	Analysis of the Mutual Inductance of Planar-Lumped Inductive Power Transfer Systems. IEEE Transactions on Industrial Electronics, 2013, 60, 410-420.	7.9	128
33	Mutual Impedance of Small Ring-Type Coils for Multiwinding Induction Heating Appliances. IEEE Transactions on Power Electronics, 2013, 28, 1025-1035.	7.9	44
34	PCB multi-track coils for domestic induction heating applications. , 2012, , .		2
35	IR sensor for temperature measurement in domestic induction heating systems. , 2012, , .		1
36	Frequency-dependent modelling of domestic induction heating systems using numerical methods for accurate time-domain simulation. IET Power Electronics, 2012, 5, 1291.	2.1	32

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37	TM-TE DECOMPOSITION OF POWER LOSSES IN MULTI-STRANDED LITZ-WIRES USED IN ELECTRONIC DEVICES. Progress in Electromagnetics Research, 2012, 123, 83-103.	4.4	45
38	Inductive Sensor for Temperature Measurement in Induction Heating Applications. IEEE Sensors Journal, 2012, 12, 996-1003.	4.7	32
39	Analysis of the coupling between small ring-type coils used in adaptable-size burners for domestic induction heating hobs. , 2011, , .		1
40	Analysis and Modeling of Planar Concentric Windings Forming Adaptable-Diameter Burners for Induction Heating Appliances. IEEE Transactions on Power Electronics, 2011, 26, 1546-1558.	7.9	59
41	COUPLING IMPEDANCE BETWEEN PLANAR COILS INSIDE A LAYERED MEDIA. Progress in Electromagnetics Research, 2011, 112, 381-396.	4.4	16
42	An application of the impedance boundary condition for the design of coils used in domestic induction heating systems. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2011, 30, 1616-1625.	0.9	4
43	Domestic Induction Appliances. IEEE Industry Applications Magazine, 2010, 16, 39-47.	0.4	164
44	Modeling of adaptable-diameter burners formed by concentric planar windings for domestic induction heating applications. , 2010, , .		1
45	Identification of the material properties used in domestic induction heating appliances for system-level simulation and design purposes. , 2010, , .		12
46	Embedded Ring-Type Inductors Modeling With Application to Induction Heating Systems. IEEE Transactions on Magnetics, 2009, 45, 5333-5343.	2.1	20
47	Efficiency model of planar loaded twisted-wire windings in a magnetic substrate for domestic induction heating appliances. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	3
48	Modeling Mutual Impedances of Loaded Non-Coaxial Inductors for Induction Heating Applications. IEEE Transactions on Magnetics, 2008, 44, 4115-4118.	2.1	14
49	The domestic induction heating appliance: An overview of recent research. IEEE Applied Power Electronics Conference and Exposition, 2008, , .	0.0	54
50	Electromagnetic induction of planar windings with cylindrical symmetry between two half-spaces. Journal of Applied Physics, 2008, 103, .	2.5	22
51	Temperature Influence on Equivalent Impedance and Efficiency of Inductor Systems for Domestic Induction Heating Appliances. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	26
52	Modeling and Calculation of the Efficiency for Low-cost Round-wire Planar Windings in Domestic Induction Heating Applications. , 2007, , .		3
53	A model of losses in twisted-multistranded wires for planar windings used in domestic induction heating appliances. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	16
54	A model of the equivalent impedance of the coupled winding-load system for a domestic induction heating application. , 2007, , .		11

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55	Frequency-dependent resistance in Litz-wire planar windings for domestic induction heating appliances. IEEE Transactions on Power Electronics, 2006, 21, 856-866.	7.9	144
56	Analytical equivalent impedance for a planar circular induction heating system. IEEE Transactions on Magnetics, 2006, 42, 84-86.	2.1	81
57	Enhancement of induction heating performance by sandwiched planar windings. Electronics Letters, 2006, 42, 241.	1.0	20
58	Modeling of Planar Spiral Inductors Between Two Multilayer Media for Induction Heating Applications. IEEE Transactions on Magnetics, 2006, 42, 3719-3729.	2.1	70
59	Simple resistance calculation in litz-wire planar windings for induction cooking appliances. IEEE Transactions on Magnetics, 2005, 41, 1280-1288.	2.1	80
60	Electrostriction-free n_2 measurement in single-mode optical fibers based on nonlinear-polarization evolution. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 390.	2.1	5
61	Measurement of the effective area of non-linear power transfer in single-mode fibers due to stimulated Raman scattering. Optics Communications, 2000, 176, 387-392.	2.1	5
62	An electromagnetic-based model for calculating the efficiency in domestic induction heating appliances. , 0, , .		11
63	Loss Analysis and Optimization of Round-wire Planar Windings for Domestic Induction Heating Appliances. , 0, , .		5