

# Agustin Salazar

## List of Publications by Year in descending order

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181  
papers

2,897  
citations

186265

28  
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243625

44  
g-index

182  
all docs

182  
docs citations

182  
times ranked

1817  
citing authors

#	ARTICLE	IF	CITATIONS
1	On thermal diffusivity. European Journal of Physics, 2003, 24, 351-358.	0.6	170
2	Thermal diffusivity measurements in solids by the "mirage" technique: Experimental results. Journal of Applied Physics, 1991, 69, 1216-1223.	2.5	109
3	Theory of thermal diffusivity determination by the "mirage" technique in solids. Journal of Applied Physics, 1989, 65, 4150-4156.	2.5	99
4	Energy propagation of thermal waves. European Journal of Physics, 2006, 27, 1349-1355.	0.6	81
5	Nano- and microstructural effects on thermal properties of poly (l-lactide)/multi-wall carbon nanotube composites. Polymer, 2012, 53, 2412-2421.	3.8	72
6	Thermal diffusivity measurements of thin plates and filaments using lock-in thermography. Review of Scientific Instruments, 2009, 80, 074904.	1.3	70
7	Effective thermal diffusivity of layered materials measured by modulated photothermal techniques. Journal of Applied Physics, 1998, 84, 3031-3041.	2.5	64
8	Extending the flash method to measure the thermal diffusivity of semitransparent solids. Measurement Science and Technology, 2014, 25, 035604.	2.6	57
9	Critical behavior of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ( $0 \leq x \leq 0.35$ ) by thermal diffusivity measurements. Physical Review B, 2004, 70.	3.2	52
10	Critical behavior of the paramagnetic to antiferromagnetic transition in orthorhombic and hexagonal phases of $\text{R}_2\text{MnO}_4$ ( $\text{R} = \text{Ca}, \text{Sr}, \text{Ba}$ ). Physical Review B, 1998, 58, 104401.		

#	ARTICLE	IF	CITATIONS
19	Simultaneous measurement of the in-plane and in-depth thermal diffusivity of solids using pulsed infrared thermography with focused illumination. NDT and E International, 2016, 77, 28-34.	3.7	40
20	Simultaneous measurement of thermal diffusivity and optical absorption coefficient using photothermal radiometry. II Multilayered solids. Journal of Applied Physics, 2011, 110, .	2.5	37
21	Fast Characterization of the Width of Vertical Cracks Using Pulsed Laser Spot Infrared Thermography. Journal of Nondestructive Evaluation, 2016, 35, 1.	2.4	36
22	Thermal diffusivity of anisotropic materials by photothermal methods. Journal of Applied Physics, 1996, 79, 3984.	2.5	35
23	The strong influence of heat losses on the accurate measurement of thermal diffusivity using lock-in thermography. Applied Physics Letters, 2009, 95, .	3.3	34
24	Thermal diffusivity measurements in opaque solids by the mirage technique in the temperature range from 300 to 1000 K. Journal of Applied Physics, 1994, 76, 1462-1468.	2.5	32
25	Thermal diffusivity of rods, tubes, and spheres by the flash method. Journal of Applied Physics, 2006, 99, 066116.	2.5	31
26	Propagation of thermal waves in multilayered spheres. Journal of Applied Physics, 2007, 101, 103534.	2.5	30
27	Overcoming the influence of the coupling fluid in photopyroelectric measurements of solid samples. Review of Scientific Instruments, 2012, 83, 014903.	1.3	29
28	Vertical cracks characterization using lock-in thermography: I infinite cracks. Measurement Science and Technology, 2014, 25, 115601.	2.6	29
29	Critical behavior of the thermal properties of KMnF <sub>3</sub> . Physical Review B, 2007, 75, .	3.2	27
30	Thermal diffusivity and critical behaviour of uniaxial ferroelectric Sn <sub>2</sub> P <sub>2</sub> S <sub>6</sub> . Thermochemica Acta, 2007, 459, 73-79.	2.7	26
31	Photothermal study of subsurface cylindrical structures. II. Experimental results. Journal of Applied Physics, 1997, 81, 7561-7566.	2.5	25
32	Thermal diffusivity measurements in porous ceramics by photothermal methods. Applied Physics A: Materials Science and Processing, 1997, 65, 15-22.	2.3	25
33	Critical behavior near the Lifshitz point in Sn <sub>2</sub> P <sub>2</sub> (S <sub>1</sub> ) <sub>2</sub> TeQ <sub>1</sub> 1 0.784314 rgBT / Overlock 10 Tf 50 187 diffusivity measurements. Journal of Physics Condensed Matter, 2011, 23, 025902.	1.8	25
34	Novel results on thermal diffusivity measurements on anisotropic materials using photothermal methods. Applied Physics Letters, 1995, 67, 626-628.	3.3	24
35	Characterization of vertical buried defects using lock-in vibrothermography: I. Direct problem. Measurement Science and Technology, 2013, 24, 065601.	2.6	24
36	Is the frictional force always opposed to the motion?. Physics Education, 1990, 25, 82-85.	0.5	23

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37	Thermal wave scattering by spheres. Journal of Applied Physics, 2004, 95, 140-149.	2.5	23
38	Accurate reconstruction of the thermal conductivity depth profile in case hardened steel. Journal of Applied Physics, 2010, 107, .	2.5	23
39	On the effective thermal diffusivity of fiber-reinforced composites. Applied Physics Letters, 2002, 80, 1903-1905.	3.3	22
40	General solution for the thermal wave scattering in fiber composites. Journal of Applied Physics, 2002, 91, 1087-1098.	2.5	22
41	Characterization of vertical buried defects using lock-in vibrothermography: II. Inverse problem. Measurement Science and Technology, 2013, 24, 065602.	2.6	22
42	Revising the exceptionally high thermal diffusivity of spider silk. Materials Letters, 2014, 114, 1-3.	2.6	22
43	Ultrasound excited thermography: an efficient tool for the characterization of vertical cracks. Measurement Science and Technology, 2017, 28, 112001.	2.6	22
44	Multiple scattering effects of thermal waves by two subsurface cylinders. Journal of Applied Physics, 2000, 87, 2600-2607.	2.5	21
45	Critical behaviour of $\text{RMnO}_3$ ( $R = \text{La, Pr, Nd}$ ) by thermal diffusivity and specific heat measurements. Journal of Physics Condensed Matter, 2005, 17, 6729-6736.	1.8	21
46	Vertical cracks characterization using lock-in thermography: II finite cracks. Measurement Science and Technology, 2014, 25, 115602.	2.6	21
47	Characterization and spatial resolution of cracks using lock-in vibrothermography. NDT and E International, 2014, 66, 8-15.	3.7	21
48	Scattering of cylindrical thermal waves in fiber composites: In-plane thermal diffusivity. Journal of Applied Physics, 2003, 93, 4536-4542.	2.5	20
49	Simultaneous Measurement of Thermal Diffusivity and Optical Absorption Coefficient of Solids Using PTR and PPE: A Comparison. International Journal of Thermophysics, 2012, 33, 1876-1886.	2.1	20
50	Measurement of in-plane thermal diffusivity of solids moving at constant velocity using laser spot infrared thermography. Measurement: Journal of the International Measurement Confederation, 2019, 134, 519-526.	5.0	20
51	Photothermal study of subsurface cylindrical structures. I. Theory. Journal of Applied Physics, 1997, 81, 7552-7560.	2.5	19
52	Accurate measurements of the thermal diffusivity of thin filaments by lock-in thermography. Journal of Applied Physics, 2010, 107, 043508.	2.5	19
53	Generalizing the flash technique in the front-face configuration to measure the thermal diffusivity of semitransparent solids. Review of Scientific Instruments, 2014, 85, 104902.	1.3	19
54	Sizing vertical cracks using burst vibrothermography. NDT and E International, 2016, 84, 36-46.	3.7	19

#	ARTICLE	IF	CITATIONS
55	Anisotropic thermal properties and ferroelectric phase transitions in layered CuInP2S6 and CuInP2Se6 crystals. Journal of Physics and Chemistry of Solids, 2017, 111, 324-327. Three-dimensional Ising critical behavior in	4.0	19
56	$S_{r} < \substack{R \\ Mn} > 0.6 < \substack{Mn \\ O} > 0.4 < \substack{Mn \\ O} > 3 < \substack{Mn \\ O} >$		

#	ARTICLE	IF	CITATIONS
73	Characterization of delaminations by lock-in vibrothermography. Journal of Physics: Conference Series, 2010, 214, 012079.	0.4	12
74	A New Method to Overcome the Underestimation of the Thermal Diffusivity of Solid Samples Induced by the Coupling Fluid in Photopyroelectric Measurements. International Journal of Thermophysics, 2012, 33, 1901-1907.	2.1	12
75	Characterization of rectangular vertical cracks using burst vibrothermography. Review of Scientific Instruments, 2015, 86, 064903.	1.3	12
76	Study of the thermal properties of polyester composites loaded with oriented carbon nanofibers using the front-face flash method. Polymer Testing, 2016, 50, 255-261.	4.8	12
77	Critical behavior study of NdScSi, NdScGe intermetallic compounds. Journal of Alloys and Compounds, 2017, 723, 559-566.	5.5	12
78	Characterizing the shape and heat production of open vertical cracks in burst vibrothermography experiments. NDT and E International, 2019, 102, 234-243.	3.7	12
79	Magnetocaloric properties and unconventional critical behavior in (Gd,Tb) <sub>6</sub> (Fe,Mn)Bi <sub>2</sub> intermetallics. Journal of Alloys and Compounds, 2020, 843, 155937.	5.5	12
80	Low temperature thermal diffusivity measurements of gases by the mirage technique. Review of Scientific Instruments, 1999, 70, 98-103.	1.3	11
81	Thermal Diffusivity of La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> (x < 0.3). International Journal of Thermophysics, 2004, 25, 1269-1279.	2.1	11
82	Thermal diffusivity and critical behavior of Nd <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> . Physica B: Condensed Matter, 2006, 378-380, 512-514.	2.7	11
83	Analysis of the Tikhonov regularization to retrieve thermal conductivity depth-profiles from infrared thermography data. Journal of Applied Physics, 2010, 108, 064905.	2.5	11
84	3D-XY critical behavior of CsMnF <sub>3</sub> from static and dynamic thermal properties. Journal of Physics Condensed Matter, 2014, 26, 096001.	1.8	11
85	On the piezoelectric contribution to the photopyroelectric signal. Review of Scientific Instruments, 2005, 76, 034901.	1.3	10
86	Thermal properties and Ising critical behavior in EuFe <sub>2</sub> As <sub>2</sub> . Journal of Alloys and Compounds, 2014, 617, 534-537.	5.5	10
87	Critical behaviour study of ferroelectric semiconductors (Pb <sub>x</sub> Sn <sub>1-x</sub> ) <sub>2</sub> P <sub>2</sub> S <sub>6</sub> from thermal diffusivity measurements. Thermochemica Acta, 2015, 617, 136-143.	2.7	10
88	Improved thermal diffusivity measurements of solids using the photopyroelectric technique in the front configuration. International Journal of Thermal Sciences, 2016, 100, 60-65.	4.9	10
89	Peculiar magnetocaloric properties and critical behavior in antiferromagnetic Tb <sub>3</sub> Ni with complex magnetic structure. Journal of Alloys and Compounds, 2019, 808, 151720.	5.5	10
90	Study of the magnetocaloric effect in intermetallics RTX (R = Nd, Gd; T = Sc, Ti; X = Si, Ge). Intermetallics, 2019, 110, 106495.	3.9	10

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91	Quantifying the width and angle of inclined cracks using laser-spot lock-in thermography. NDT and E International, 2021, 122, 102494.	3.7	10
92	Comments on "On the photothermal method applied to low thermal diffusivity measurements" [Rev. Sci. Instrum. 64, 1576 (1993)]. Review of Scientific Instruments, 1995, 66, 275-276.	1.3	9
93	Thermal wave scattering by two overlapping and parallel cylinders. Applied Physics A: Materials Science and Processing, 2008, 93, 429-437.	2.3	9
94	Thermal characterization of rods, tubes and spheres using pulsed infrared thermography. Journal Physics D: Applied Physics, 2008, 41, 015403.	2.8	9
95	Thermal effusivity measurements of thermal insulators using the photopyroelectric technique in the front configuration. Measurement: Journal of the International Measurement Confederation, 2018, 121, 96-102.	5.0	9
96	Motion of a ball on a rough horizontal surface after being stuck by a tapering rod. European Journal of Physics, 1990, 11, 228-232.	0.6	8
97	Photothermal measurements near a 90° edge. I. Mirage deflection by a free edge. Journal of Applied Physics, 1993, 74, 536-547.	2.5	8
98	Thermal Diffusivity and Critical Behaviour of Uniaxial Ferroelectric Pb5Ge3O11. Ferroelectrics, 2008, 369, 76-84.	0.6	8
99	Quantitative study of buried heat sources by lock-in vibrothermography: an approach to crack characterization. Journal Physics D: Applied Physics, 2009, 42, 055502.	2.8	8
100	Critical behavior study of Pr <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> and Nd <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> with x=1/2. Journal of Alloys and Compounds, 2016, 682, 825-831.	5.5	8
101	In search of a tricritical Lifshitz point in Sn <sub>2</sub> P <sub>2</sub> (S <sub>1-x</sub> Se <sub>x</sub> ) <sub>6</sub> doped with Pb, Ge: A critical behavior study. Journal of Alloys and Compounds, 2017, 694, 808-814.	5.5	8
102	Comprehensive study of the magnetic phase transitions in Tb <sub>3</sub> Co combining thermal, magnetic and neutron diffraction measurements. Intermetallics, 2019, 111, 106519.	3.9	8
103	A study of the photothermal signal produced by a series of subsurface cylinders in opaque materials. Journal of Applied Physics, 1998, 84, 5229-5237.	2.5	7
104	Thermal diffusivity of nonflat plates using the flash method. Review of Scientific Instruments, 2011, 82, 014902.	1.3	7
105	Thermal and Optical Characterization of Undoped and Neodymium-Doped Y <sub>3</sub> ScAl <sub>4</sub> O <sub>12</sub> Ceramics. Journal of Physical Chemistry C, 2014, 118, 13781-13789.	3.1	7
106	Advances in Crack Characterization by Lock-In Infrared Thermography. International Journal of Thermophysics, 2015, 36, 1202-1207.	2.1	7
107	Coupling Pulsed Flying Spot technique with robot automation for industrial thermal characterization of complex shape composite materials. NDT and E International, 2019, 102, 175-179.	3.7	7
108	Measuring the in-plane thermal diffusivity of moving samples using laser spot lock-in thermography. International Journal of Thermal Sciences, 2020, 151, 106277.	4.9	7





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127	Propagation of thermal waves in multilayered cylinders using the thermal quadrupole method. European Physical Journal: Special Topics, 2008, 153, 383-386.	2.6	4
128	Propagation of thermal waves across a wedge. Journal of Applied Physics, 2012, 112, 063511.	2.5	4
129	Thermal Conductivity and Diffusivity Measurements of Glass-Coated Magnetic Microwires Using Lock-in Thermography. International Journal of Thermophysics, 2015, 36, 1137-1141.	2.1	4
130	Critical behavior study of the spin ordering transition in RVO <sub>3</sub> (R = Ce, Pr, Nd, Sm, Gd, Er) by means of ac photopyroelectric calorimetry. Journal of Alloys and Compounds, 2017, 703, 210-215.	5.5	4
131	Heat transport in epoxy and polyester carbonyl iron microcomposites: The effect of concentration and temperature. Journal of Composite Materials, 2018, 52, 1331-1338.	2.4	4
132	Inducing a tricritical point in Sn <sub>2</sub> P <sub>2</sub> (SeyS <sub>1-y</sub> ) <sub>6</sub> ferroelectrics by Pb addition. Thermochimica Acta, 2019, 675, 38-43.	2.7	4
133	Characterizing Subsurface Rectangular Tilted Heat Sources Using Inductive Thermography. Applied Sciences (Switzerland), 2020, 10, 5444.	2.5	4
134	Sizing the length of surface breaking cracks using vibrothermography. NDT and E International, 2020, 112, 102250.	3.7	4
135	Critical behavior dependence on Sr concentration in La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> . Journal of Applied Physics, 2004, 95, 7366-7368.	2.5	3
136	Thermal Diffusivity of $\text{Fe}_{1-x}\text{Zn}_x\text{O}_4$ at the Verwey Transition. IEEE Transactions on Magnetics, 2004, 40, 2820-2822.	2.1	3
137	Degeneracy of the thermal properties of buried structures. Journal of Applied Physics, 2005, 98, 013513.	2.5	3
138	Characterization of buried cylinders and spheres by pulsed infrared thermography. Journal of Applied Physics, 2005, 98, 103502.	2.5	3
139	Application of the Thermal Quadrupoles Method to Semitransparent Solids. International Journal of Thermophysics, 2012, 33, 1887-1891.	2.1	3
140	Thermal diffusivity and thermal conductivity in layered ferrielectric materials $M_{1+x}M_{3+x}P_2(S,Se)_6$ ( $M = \text{Cu, Ag}$ ) $T_j \text{ ET} \otimes \text{q} \text{ O} \text{ O} \text{ BT} / \text{Over}$		
141	Aplicación de las técnicas fototérmicas al estudio de materiales. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2000, 39, 584-588.	1.9	3
142	Photoelastic effect and mirage deflection in anisotropic materials. Applied Physics A: Materials Science and Processing, 2002, 74, 47-57.	2.3	2
143	Application of the flash method to rods and tubes. European Physical Journal: Special Topics, 2008, 153, 83-86.	2.6	2
144	Phase Transitions at Low Temperature (<77 K) by Means of Photopyroelectric Calorimetry. International Journal of Thermophysics, 2012, 33, 2159-2166.	2.1	2

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145	Retrieving the thermal diffusivity and effusivity of solids from the same frequency scan using the front photopyroelectric technique. Measurement Science and Technology, 2017, 28, 105011.	2.6	2
146	Determining the thermal diffusivity and the principal directions on anisotropic moving samples with laser-spot thermography. International Journal of Heat and Mass Transfer, 2021, 176, 121447.	4.8	2
147	Temperature dependence of the thermal diffusivity of unidirectional composites by the mirage technique. High Temperatures - High Pressures, 1997, 29, 467-472.	0.3	2
148	On the strong influence of the photoelastic effect in the collinear mirage deflection. Applied Physics Letters, 2000, 76, 2665-2667.	3.3	1
149	Latent heat evaluation with photopyroelectric calorimetry. Journal of Physics: Conference Series, 2010, 214, 012031.	0.4	1
150	Critical Behavior of Magnetic Phase Transitions in $R_2CoGa_8$ ( $R = Tj, ET, Qq, 0, 0, rg, BT, /Overlock$ ) 1081-1085.	2.1	1
151	Characterizing open and non-uniform vertical heat sources: towards the identification of real vertical cracks in vibrothermography experiments. Proceedings of SPIE, 2017, , .	0.8	1
152	Improved algorithm to reconstruct the thermal conductivity depth profile in hardened steels. , 2010, , .		1
153	Accurate measurements of the thermal diffusivity of thin films and thin filaments using lock-in thermography. , 2010, , .		1
154	Sizing the thermal resistance of vertical cracks using pulsed infrared thermography with laser spot excitation. , 0, , .		1
155	Characterization of subsurface overlapping cylindrical inclusions by infrared thermography. , 2008, , .		1
156	Flying-spot thermography: sizing the thermal resistance of infinite vertical cracks. , 2019, , .		1
157	Vertical Cracks Excited in Lock-in Vibrothermography Experiments: Identification of Open and Inhomogeneous Heat Fluxes. Sensors, 2022, 22, 2336.	3.8	1
158	Low temperature thermal diffusivity measurements of transparent solids and gases by the mirage technique. , 1999, , .		0
159	Effective thermal diffusivity of composites by the flash method. European Physical Journal Special Topics, 2005, 125, 515-517.	0.2	0
160	Thermal properties of the monoclinic $KGd(PO_3)_3$ . , 2009, , .		0
161	Application of burst vibrothermography to characterize planar vertical cracks. , 2016, , .		0
162	Thermal characterization and critical behavior study of $(Pb_{1-x}Sn_x)_2P_2Se_6$ . Ferroelectrics, 2017, 513, 56-61.	0.6	0

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163	Some issues in the photopyroelectric characterization of solids. European Physical Journal Special Topics, 2005, 125, 289-291.	0.2	0
164	Application of the flash method to rods and tubes. , 2006, , .		0
165	Crack characterization in metallic plates using vibrothermography. , 2008, , .		0
166	Application of vibrothermography to the depth characterization of delaminations. , 2010, , .		0
167	Measurements of the thermal diffusivity and conductivity of magnetic microwires using lock-in thermography. , 2012, , .		0
168	Defect shape and size discrimination using infrared vibrothermography. , 2012, , .		0
169	Development of a discontinuous finite element method to characterize vertical cracks using lock-in thermography. , 2014, , .		0
170	Nondestructive Evaluation of a Semi-infinite Buried Slab by Photothermal Deflection. Springer Series in Optical Sciences, 1990, , 95-98.	0.7	0
171	Photothermal Deflection Method for Thermal Diffusivity Measurements: A Thermo-optical Classification of Solids. Springer Series in Optical Sciences, 1990, , 331-333.	0.7	0
172	Numerical Analysis of Simultaneous Surface and Subsurface Features in Homogeneous Solids and in Coatings by the Mirage Technique. Springer Series in Optical Sciences, 1992, , 199-201.	0.7	0
173	Characterization of subsurface cylindrical structures by photothermal wave techniques. European Physical Journal Special Topics, 1994, 04, C7-583-C7-586.	0.2	0
174	Application of collinear mirage detection for thermal diffusivity measurements of solids at high temperatures. European Physical Journal Special Topics, 1994, 04, C7-303-C7-306.	0.2	0
175	Fast geometrical characterization of vertical cracks using burst vibrothermography. , 0, , .		0
176	Optimization of Total Variation regularization to improve the accuracy of the characterization of vertical cracks by lock-in vibrothermography. , 0, , .		0
177	Infrared thermography with Optical and Ultrasonic Excitation: Promising Tools for the Characterization of Vertical Cracks. , 0, , .		0
178	Characterization of slanted buried planar heat sources using time domain Infrared Thermography. , 0, , .		0
179	Application of the Hill Climbing Algorithm to the Geometrical Reconstruction of Vertical Buried Heat Sources Using Vibrothermography. , 0, , .		0
180	Measuring the thermal resistance of vertical interfaces separating two different media using lock-in infrared thermography with laser spot excitation. , 0, , .		0

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181	Flying-spot thermography: measuring the in-plane (an)isotropic thermal diffusivity of large and complex parts. , 2019, , .		0