

# Rodrigo P B Costa-Felix

## List of Publications by Year in descending order

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72  
papers

496  
citations

687363

13  
h-index

752698

20  
g-index

72  
all docs

72  
docs citations

72  
times ranked

488  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microwave activation of enzymatic catalysts for biodiesel production. Journal of Molecular Catalysis B: Enzymatic, 2010, 67, 117-121.	1.8	48
2	Biofuel ethanol adulteration detection using an ultrasonic measurement method. Fuel, 2012, 91, 209-212.	6.4	42
3	Measuring uncertainty of ultrasonic longitudinal phase velocity estimation using different time-delay estimation methods based on cross-correlation: Computational simulation and experiments. Measurement: Journal of the International Measurement Confederation, 2018, 122, 45-56.	5.0	35
4	Ultrasonic parameter measurement as a means of assessing the quality of biodiesel production. Fuel, 2019, 241, 155-163.	6.4	25
5	Induction of Skeletal Muscle Differentiation In Vitro by Therapeutic Ultrasound. Ultrasound in Medicine and Biology, 2014, 40, 504-512.	1.5	23
6	Type B uncertainty in sound power measurements using comparison method. Measurement: Journal of the International Measurement Confederation, 2006, 39, 169-175.	5.0	20
7	Standard operating procedure to prepare agar phantoms. Journal of Physics: Conference Series, 2016, 733, 012044.	0.4	19
8	Metrological Validation of a Measurement Procedure for the Characterization of a Biological Ultrasound Tissue-Mimicking Material. Ultrasound in Medicine and Biology, 2017, 43, 323-331.	1.5	17
9	Using ultrasonic velocity for monitoring and analysing biodiesel production. Fuel, 2018, 226, 389-399.	6.4	17
10	Monte Carlo uncertainty assessment of ultrasonic beam parameters from immersion transducers used to non-destructive testing. Ultrasonics, 2016, 69, 144-151.	3.9	16
11	Ultrasonic attenuation and sound velocity assessment for mixtures of gasoline and organic compounds. Fuel, 2017, 191, 170-175.	6.4	16
12	Uncertainty assessment of effective radiating area and beam non-uniformity ratio of ultrasound transducers determined according to IEC 61689:2007. Metrologia, 2009, 46, 367-374.	1.2	15
13	Output bandwidth enhancement of a pulsed ultrasound system using a flat envelope and compensated frequency-modulated input signal: Theory and experimental applications. Measurement: Journal of the International Measurement Confederation, 2015, 69, 146-154.	5.0	14
14	Speed of sound as a function of temperature for ultrasonic propagation in soybean oil. Journal of Physics: Conference Series, 2016, 733, 012040.	0.4	14
15	Ultrasound-assisted transesterification of soybean oil using low power and high frequency and no external heating source. Ultrasonics Sonochemistry, 2021, 78, 105709.	8.2	14
16	Influence of subcutaneous fat in surface heating of ultrasonic diagnostic transducers. Ultrasonics, 2014, 54, 1476-1479.	3.9	13
17	Comparing Ultrasound and Mechanical Steering in a Biodiesel Production Process. Physics Procedia, 2015, 70, 1066-1069.	1.2	12
18	A methodology free of pyridine for measuring hydroxyl value in polymers and oils. Polymer Testing, 2014, 33, 16-20.	4.8	11

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19	An ultrasonic method to appraise diesel and biodiesel blends. <i>Fuel</i> , 2018, 227, 150-153.	6.4	11
20	Non-invasive Estimation of Temperature during Physiotherapeutic Ultrasound Application Using the Average Gray-Level Content of B-Mode Images: A Metrological Approach. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 1938-1952.	1.5	10
21	Primary reciprocity-based method for calibration of hydrophone magnitude and phase sensitivity: Complete tests at frequencies from 1 to 7MHz. <i>Ultrasonics</i> , 2015, 58, 87-95.	3.9	9
22	Nondestructive testing ultrasonic immersion probe assessment and uncertainty evaluation according to EN 12668-2:2010. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2012, 59, 2338-2346.	3.0	8
23	Nonlinear frequency modulated excitation signal and modified compressing filter for improved range resolution and side lobe level of ultrasound echoes. <i>Applied Acoustics</i> , 2018, 130, 238-246.	3.3	8
24	Uncertainty evaluation from non-invasive estimation of temperature variation using B-mode ultrasonic images from a plastic phantom. <i>Measurement: Journal of the International Measurement Confederation</i> , 2015, 69, 189-194.	5.0	7
25	Ultrasonic calibration and certification of V1 and V2 type reference standard blocks for use in Non-Destructive Testing. <i>Journal of Physics: Conference Series</i> , 2011, 279, 012029.	0.4	6
26	Ultrasound as a Metrological Tool for Monitoring Transesterification Kinetics. , 0, , .		6
27	Ultrasound Methods for Biodiesel Production and Analysis. , 0, , .		6
28	Thermochromic Phantom and Measurement Protocol for Qualitative Analysis of Ultrasound Physiotherapy Systems. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 299-307.	1.5	5
29	Relating speed of sound and echo amplitude with biodiesel manufacture. <i>Chemical Engineering Research and Design</i> , 2018, 136, 825-833.	5.6	4
30	Sensibility of hydrous ethanol adulteration detection using ultrasonic parameters validated in a metrological base. <i>Journal of Physics: Conference Series</i> , 2011, 279, 012028.	0.4	3
31	Post-market evaluation of medical electrical equipment. <i>Research on Biomedical Engineering</i> , 2021, 37, 105-109.	2.2	3
32	Feasibility of Reference Material Certification for Speed of Sound and Attenuation Coefficient Based on Standard Tissue-Mimicking Material. <i>Ultrasound in Medicine and Biology</i> , 2021, 47, 1904-1919.	1.5	3
33	A Metrological Based Realization of Time-of-Flight Diffraction Technique. <i>Physics Procedia</i> , 2015, 70, 590-593.	1.2	3
34	DEVELOPMENT OF AN ULTRASONIC TECHNIQUE TO ASSESS OIL AND GREASE CONTENTS IN BIOFUEL WASTEWATER. <i>Quimica Nova</i> , 2015, , .	0.3	3
35	Broadband ultrasonic attenuation measurements using coded sweep excitations. , 0, , .		2
36	Effective radiating area and beam non-uniformity ratio of ultrasound transducers at 5 MHz, according to IEC 61689:2007. <i>Ultrasonics</i> , 2010, 50, 329-331.	3.9	2

#	ARTICLE	IF	CITATIONS
37	Ultrasound propagation velocity and acoustic attenuation on agarose phantoms' in three different manufacture techniques. , 2014, , .		2
38	Monitoring biodiesel reactions of soybean oil and sunflower oil using ultrasonic parameters. Journal of Physics: Conference Series, 2015, 575, 012001.	0.4	2
39	Uncertainty evaluation of dead zone of diagnostic ultrasound equipment. Journal of Physics: Conference Series, 2016, 733, 012043.	0.4	2
40	Use of ultrasound to monitor physical properties of soybean oil. Journal of Physics: Conference Series, 2016, 733, 012042.	0.4	2
41	Measurement Precision Under Repeatability Conditions of a Batch of Sound Power Assessment for Blenders in Reverberation Room. Archives of Acoustics, 2016, 41, 591-597.	0.8	2
42	Metrological assessment of image quality in ultrasonic medical diagnostic equipment. Research on Biomedical Engineering, 2020, 36, 379-397.	2.2	2
43	Tempo de Voo da Onda Difrata (ToFD) Auxilia na Garantia da Qualidade da ProduçŁo de PeÇas e Estruturas MecÂnicas. Soldagem E Inspecao, 0, 24, .	0.6	2
44	P2D-9 A Frequency-Compensated Coded-Excitation Pulse to Improve Axial Resolution of Ultrasonic System. , 2006, , .		1
45	P1G-9 Stepped Sine Versus Coded Pulse As Excitation Signals for Ultrasonic Transducer Calibration in a Non-Linear Propagation Field. , 2006, , .		1
46	Metrological aspects on therapeutic ultrasound parameters: effective radiating area and non-uniformity ration. Physics Procedia, 2010, 3, 643-649.	1.2	1
47	Improved range resolution and side lobe level of ultrasound echoes using nonlinear frequency-modulated excitation signal and modified compressing filter. , 2011, , .		1
48	The importance of expression of uncertainty of acoustical parameters of ultrasonic phantoms. Journal of Physics: Conference Series, 2011, 279, 012027.	0.4	1
49	Biological response in vitro of skeletal muscle cells treated with different intensity continuous and pulsed ultrasound fields. Journal of Physics: Conference Series, 2011, 279, 012022.	0.4	1
50	A fully automated system for ultrasonic power measurement and simulation accordingly to IEC 61161:2006. Journal of Physics: Conference Series, 2011, 279, 012004.	0.4	1
51	Hydrophone's sensitivity calibration based on its complex transfer function. Journal of Physics: Conference Series, 2015, 575, 012004.	0.4	1
52	Ultrasonic transverse velocity calibration of standard blocks for use in non-destructive testing. Journal of Physics: Conference Series, 2015, 575, 012006.	0.4	1
53	Aspectos MetrolÃgicos da TÃcnica Tempo de Voo da Onda Difrata (ToFD) para UtilizaÃo em Ensaio NÃo Destrutivos (ENDs) por Ultrassom. Soldagem E Inspecao, 2016, 21, 406-416.	0.6	1
54	Assessment of ultrasonic properties of an agarose phantom at the frequency range 2.25 MHz to 10 MHz. Journal of Physics: Conference Series, 2021, 1826, 012005.	0.4	1

#	ARTICLE	IF	CITATIONS
55	Metrological Approach for Characterizing Ultrasonic Properties of Soft Tissue-Mimicking Material. IFMBE Proceedings, 2020, , 1315-1328.	0.3	1
56	Development of a reliable ultrasound power source for metrological applications. , 2008, , .		0
57	Ultrasonic immersion probes characterization for use in nondestructive testing according to EN 12668-2:2001. Journal of Physics: Conference Series, 2011, 279, 012025.	0.4	0
58	Estimation of ultrasonic beam parameters uncertainty from NDT immersion probes using Monte Carlo method. , 2012, , .		0
59	In-line ultrasonic monitoring of biodiesel production. , 2012, , .		0
60	Reciprocity calibration of hydroacoustic transducers using swept-sines (chirps). , 2013, , .		0
61	Reciprocity-based method for magnitude and phase calibration of hydrophone sensitivity. , 2013, , .		0
62	A reciprocity-based method to determine hydrophone complex sensitivity and tested at frequencies from 1 to 7 MHz. , 2014, , .		0
63	Hydro acoustic transducer's calibration by the reciprocity. Journal of Physics: Conference Series, 2015, 575, 012007.	0.4	0
64	VII Brazilian Congress on Metrology (Metrologia 2013). Journal of Physics: Conference Series, 2015, 575, 011001.	0.4	0
65	Uncertainty assessment in measurement of myotube thickness in cells culture treated with and without therapeutic ultrasound. Journal of Physics: Conference Series, 2015, 575, 012002.	0.4	0
66	Effects of the concentration of emulsion of oil-in-water on the propagation velocity and attenuation. Journal of Physics: Conference Series, 2015, 575, 012005.	0.4	0
67	Review of the Technical Metrological Regulation for flow computers and volume converters. Journal of Physics: Conference Series, 2016, 733, 012050.	0.4	0
68	Metrology applied to ultrasound characterization of trabecular bones using the AIB parameter. Journal of Physics: Conference Series, 2016, 733, 012012.	0.4	0
69	Experimental findings on the underwater measurements uncertainty of speed of sound and the alignment system. Journal of Physics: Conference Series, 2016, 733, 012053.	0.4	0
70	On the importance of measurement system calibration for underwater passive monitoring. Journal of Physics: Conference Series, 2016, 733, 012052.	0.4	0
71	Metrological evaluation of a flaw detector used in non-destructive testing by ultrasound. Journal of Physics: Conference Series, 2016, 733, 012051.	0.4	0
72	IdentificaçŁo da demanda brasileira por ensaios acreditados para tŁxeis inteligentes aplicados Ā saĀde por meio da anĀlise patentĀria. Sistemas & GestŁo, 2022, 16, .	0.1	0