

Samir Trabelsi

List of Publications by Year in descending order

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76
papers

1,247
citations

394421

19
h-index

395702

33
g-index

76
all docs

76
docs citations

76
times ranked

922
citing authors

#	ARTICLE	IF	CITATIONS
1	Free-space measurement of dielectric properties of cereal grain and oilseed at microwave frequencies. Measurement Science and Technology, 2003, 14, 589-600.	2.6	158
2	Density-independent functions for on-line microwave moisture meters: a general discussion. Measurement Science and Technology, 1998, 9, 570-578.	2.6	85
3	Factors Influencing the Dielectric Properties of Agricultural and Food Products. Journal of Microwave Power and Electromagnetic Energy, 2012, 46, 93-107.	0.8	84
4	Microwave sensing of quality attributes of agricultural and food products. IEEE Instrumentation and Measurement Magazine, 2016, 19, 36-41.	1.6	78
5	Nondestructive microwave characterization for determining the bulk density and moisture content of shelled corn. Measurement Science and Technology, 1998, 9, 1548-1556.	2.6	77
6	Microwave dielectric method for the rapid, non-destructive determination of bulk density and moisture content of peanut hull pellets. Biosystems Engineering, 2013, 115, 332-338.	4.3	43
7	Microwave moisture meter for in-shell peanut kernels. Food Control, 2016, 66, 283-290.	5.5	43
8	Microwave dielectric sensing of bulk density of granular materials. Measurement Science and Technology, 2001, 12, 2192-2197.	2.6	36
9	Historical development of grain moisture measurement and other food quality sensing through electrical properties. IEEE Instrumentation and Measurement Magazine, 2016, 19, 16-23.	1.6	36
10	Dielectric Properties of Biomass/Biochar Mixtures at Microwave Frequencies. Energies, 2017, 10, 502.	3.1	34
11	Measurement of the Dielectric Properties of Sawdust Between 0.5 and 15 GHz. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3384-3390.	4.7	31
12	Dielectric Properties of Honeydew Melons and Correlation with Quality. Journal of Microwave Power and Electromagnetic Energy, 2006, 41, 44-54.	0.8	30
13	Unified microwave moisture sensing technique for grain and seed. Measurement Science and Technology, 2007, 18, 997-1003.	2.6	30
14	Nondestructive sensing of bulk density and moisture content in shelled peanuts from microwave permittivity measurements. Food Control, 2006, 17, 304-311.	5.5	29
15	Temperature-dependent behaviour of dielectric properties of bound water in grain at microwave frequencies. Measurement Science and Technology, 2006, 17, 2289-2293.	2.6	28
16	Portable Six-Port Reflectometer for Determining Moisture Content of Biomass Material. IEEE Sensors Journal, 2017, 17, 4814-4819.	4.7	26
17	Regression Analysis of Microwave Spectra for Temperature-Compensated and Density-Independent Determination of Wheat Moisture Content. Applied Spectroscopy, 1998, 52, 1435-1446.	2.2	22
18	Influence of Water Content on RF and Microwave Dielectric Behavior of Foods. Journal of Microwave Power and Electromagnetic Energy, 2008, 43, 13-23.	0.8	21

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19	Microwave nondestructive sensing of moisture content in shelled peanuts independent of bulk density and with temperature compensation. <i>Sensing and Instrumentation for Food Quality and Safety</i> , 2009, 3, 114-121.	1.5	19
20	Microwave sensing of moisture in flowing biomass pellets. <i>Biosystems Engineering</i> , 2017, 155, 152-160.	4.3	17
21	Variation of the dielectric properties of chicken meat with frequency and temperature. <i>Journal of Food Measurement and Characterization</i> , 2015, 9, 299-304.	3.2	16
22	Effects of temperature and material on sensing moisture content of pelleted biomass through dielectric properties. <i>Biosystems Engineering</i> , 2016, 149, 1-10.	4.3	15
23	Open Transverse-Slot Substrate-Integrated Waveguide Sensor for Biomass Permittivity Determination. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2017, 66, 2181-2188.	4.7	15
24	New Calibration Algorithms for Dielectric-Based Microwave Moisture Sensors. , 2017, 1, 1-4.		15
25	Open-Ended Half-Mode Substrate-Integrated Waveguide Sensor for Complex Permittivity Measurement. <i>IEEE Sensors Journal</i> , 2018, 18, 2759-2767.	4.7	15
26	Dielectric properties-based method for rapid and nondestructive moisture sensing in almonds. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2016, 50, 94-105.	0.8	14
27	Measuring Dielectric Properties for Sensing Foreign Material in Peanuts. <i>IEEE Sensors Journal</i> , 2019, 19, 1756-1766.	4.7	14
28	Use of material dielectric properties in agricultural applications. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2016, 50, 237-268.	0.8	12
29	In-line microwave reflection measurement technique for determining moisture content of biomass material. <i>Biosystems Engineering</i> , 2019, 188, 24-30.	4.3	12
30	Development of an Eighth-scale Grain Drying System with Real-time Microwave Monitoring of Moisture Content. <i>Applied Engineering in Agriculture</i> , 2019, 35, 767-774.	0.7	11
31	Microwave moisture meter for granular and particulate materials. , 2010, , .		10
32	Investigation of dielectric sensing for fruit quality determination. , 2008, , .		10
33	Study of Fruit Permittivity Measurements for Quality Detection. , 2008, , .		9
34	Investigating the Influence of Aging on Radiofrequency Dielectric Properties of Chicken Meat. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2014, 48, 215-220.	0.8	9
35	Free-Space Transmission Dielectric Properties Measurement Based on Six-Port Technology. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-7.	4.7	9
36	Practical Microwave Meter for Sensing Moisture and Density of Granular Materials. , 2008, , .		8

#	ARTICLE	IF	CITATIONS
37	Microwave Dielectric Properties of Cereal Grain and Oilseed. , 2005, , .		7
38	Measuring the complex permittivity of thin grain samples by the free-space transmission technique. , 2012, , .		7
39	Density-independent algorithm for sensing moisture content of sawdust based on reflection measurements. Biosystems Engineering, 2017, 158, 102-109.	4.3	7
40	Using Microwave Sensing to Investigate Kernel Moisture Content at the Front and Back of Semitrailers during Peanut Drying. Applied Engineering in Agriculture, 2017, 33, 611-617.	0.7	7
41	Dielectric Spectroscopy of Honeydew Melons for Quality Sensing. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	6
42	Sensing quality of watermelons through dielectric permittivity. , 2007, , .		6
43	Measurement of grain and seed microwave permittivity for moisture and density determination. , 2010, , .		6
44	Use of grain and seed dielectric properties for moisture measurement. , 2011, , .		6
45	Density-independent calibration functions for nondestructive moisture sensing in flowing grain. Journal of Microwave Power and Electromagnetic Energy, 2019, 53, 69-80.	0.8	6
46	Dielectric properties of peanut-hull pellets at microwave frequencies. , 2010, , .		5
47	Microwave moisture sensor for rapid and nondestructive grading of peanuts. , 2010, , .		5
48	Measuring changes in radio-frequency dielectric properties of chicken meat during storage. Journal of Food Measurement and Characterization, 2018, 12, 683-690.	3.2	5
49	Calibration Algorithm for Rapid and Nondestructive Moisture Sensing in In-Shell Nuts. , 2019, 3, 1-4.		5
50	Circuits and signal conditioning for a peanut-drying monitoring system. , 2015, , .		4
51	Dielectric characterization of bentonite clay at various moisture contents and with mixtures of biomass in the microwave spectrum. Journal of Microwave Power and Electromagnetic Energy, 2018, 52, 3-15.	0.8	4
52	Inexpensive microwave moisture sensor for granular materials. , 2007, , .		3
53	Effects of "Natural" Water and "Added" Water on Prediction of Moisture Content and Bulk Density of Shelled Corn from Microwave Dielectric Properties. Journal of Microwave Power and Electromagnetic Energy, 2010, 44, 72-80.	0.8	3
54	Measurement of grain and seed moisture and density through permittivity relationships. , 2010, , .		3

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55	Frequency and temperature dependence of dielectric properties of chicken meat. , 2012, , .		3
56	A calibration technique for measuring the complex permittivity of materials with planar transmission lines. , 2013, , .		3
57	<i>Real-time Monitoring of Moisture within an Eighth-scale Grain Bin during Drying</i>. , 2018, , .		3
58	Nondestructive Sensing of Water Activity From Measurement of the Dielectric Properties at Microwave Frequencies. , 2020, 4, 1-4.		3
59	Near-Field Measurements of Dielectric Properties of Granular Materials with Microstrip Antennas for Microwave-Sensing Applications. Research in Nondestructive Evaluation, 2006, 17, 1-16.	1.1	2
60	A Low-Cost Microwave Moisture Sensor. , 2006, , .		2
61	An Automated Approach to Peanut Drying with Real-time Monitoring of In-Shell Kernel Moisture Content with a Microwave Sensor. , 2012, , .		2
62	Investigating effectiveness of density-independent calibration algorithms for nondestructive moisture sensing in flowing grains. , 2018, , .		2
63	Open-ended coplanar waveguide sensor for dielectric permittivity measurement. , 2018, , .		2
64	Estimating Energy Costs of Nonbeneficial Dryer Operation by Using a Peanut Drying Monitoring System. Applied Engineering in Agriculture, 2018, 34, 491-496.	0.7	2
65	Performance Comparison of Three Density-Independent Calibration Functions for Microwave Moisture Sensing in Unshelled Peanuts during Drying. Applied Engineering in Agriculture, 2020, 36, 667-672.	0.7	2
66	Influence of Peanut Orientation on Microwave Sensing of Moisture Content in Cleaned Unshelled Peanuts. IEEE Sensors Journal, 2022, 22, 10515-10523.	4.7	2
67	Sensing Egg Quality during Storage by Radiofrequency Complex Permittivity Measurement. , 2007, , .		1
68	Microwave moisture sensing through use of a piecewise density-independent function. , 2013, , .		1
69	Principles of grain and seed moisture sensing through radio-frequency and microwave dielectric properties. , 2017, , .		1
70	Nondestructive Moisture Sensing in Peanut Kernels from Microwave Permittivity Measurements on Unshelled Pods. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
71	Microwave dielectric sensing of moisture content in shelled peanuts independent of bulk density and with temperature compensation. , 2008, , .		0
72	Measuring the complex permittivity of poultry meat with a planar transmission-line sensor. , 2013, , .		0

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73	<i>Using a Peanut Drying Monitoring System to Estimate Costs of Nonbeneficial Dryer Operation</i>. , 2017, , .		0
74	<i>Comparison of Drying Rate and Temperature Convergence in Grains and Seed with an Eighth-scale Grain Drying System</i>. , 2020, , .		0
75	Determination of foreign-material content in uncleaned peanuts by microwave measurements and machine learning techniques. Journal of Microwave Power and Electromagnetic Energy, 2022, 56, 3-17.	0.8	0
76	Use of dielectric mixture equations for the characterization of uncleaned peanuts. Measurement Food, 2022, 5, 100022.	1.6	0