FranÃ§ois Mariette

List of Publications by Year
in descending order

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Version: 2024-02-01

61 papers	2,130 citations	201674 27 h-index	233421 45 g-index
62 all docs	62 docs citations	62 times ranked	2457 citing authors

#	Article	IF	Citations
1	Influence of MRI acquisition protocols and image intensity normalization methods on texture classification. Magnetic Resonance Imaging, 2004, 22, 81-91.	1.8	448
2	Investigations of food colloids by NMR and MRI. Current Opinion in Colloid and Interface Science, 2009, 14, 203-211.	7.4	109
3	Rehydration of casein powders: effects of added mineral salts and salt addition methods on water transfer. International Dairy Journal, 2002, 12, 51-57.	3.0	88
4	1H nuclear magnetic resonance relaxometric characterization of fat and water states in soft and hard cheese. Journal of Dairy Research, 2000, 67, 609-618.	1.4	73
5	Monitoring the postharvest ripening of tomato fruit using quantitative MRI and NMR relaxometry. Postharvest Biology and Technology, 2009, 53, 22-35.	6.0	68
6	Efficient Maximum Entropy Reconstruction of Nuclear Magnetic Resonance T1-T2 Spectra. IEEE Transactions on Signal Processing, 2010, 58, 6040-6051.	5.3	67
7	Evolution of water proton nuclear magnetic relaxation during milk coagulation and syneresis: Structural implications. Journal of Agricultural and Food Chemistry, 1993, 41, 2259-2266.	5.2	57
8	Temperature-Associated Proton Dynamics in Wheat Starch-Based Model Systems and Wheat Flour Dough Evaluated by NMR. Food and Bioprocess Technology, 2015, 8, 777-790.	4.7	55
9	Quantification of muscle, subcutaneous fat and intermuscular fat in pig carcasses and cuts by magnetic resonance imaging. Meat Science, 2006, 72, 146-154.	5.5	51
10	Multinuclear NMR study of the pH dependent water state in skim milk and caseinate solutions. Journal of Dairy Research, 1993, 60, 175-188.	1.4	50
11	NMR Relaxation and Water Self-Diffusion Studies in Whey Protein Solutions and Gels. Journal of Agricultural and Food Chemistry, 2005, 53, 6784-6790.	5.2	47
12	1H NMR Diffusometry Study of Water in Casein Dispersions and Gels. Journal of Agricultural and Food Chemistry, 2002, 50, 4295-4302.	5.2	46
13	Analysis of the dynamic mechanical properties of apple tissue and relationships with the intracellular water status, gas distribution, histological properties and chemical composition. Postharvest Biology and Technology, 2015, 104, 1-16.	6.0	46
14	1H Nuclear Magnetic Resonance Relaxometry Study of Water State in Milk Protein Mixtures. Journal of Agricultural and Food Chemistry, 2004, 52, 5449-5455.	5.2	42
15	Impact of Casein Gel Microstructure on Self-Diffusion Coefficient of Molecular Probes Measured by1H PFG-NMR. Journal of Agricultural and Food Chemistry, 2007, 55, 10764-10772.	5.2	42
16	NMR Signal Analysis To Attribute the Components to the Solid/Liquid Phases Present in Mixes and Ice Creams. Journal of Agricultural and Food Chemistry, 2005, 53, 1317-1327.	5.2	38
17	Effect of Casein Concentration in Suspensions and Gels on Poly(ethylene glycol)s NMR Self-Diffusion Measurements. Macromolecules, 2005, 38, 9171-9179.	4.8	37
18	NMR assessment of ice cream: Effect of formulation on liquid and solid fat. International Dairy Journal, 2005, 15, 1225-1233.	3.0	37

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19	NMR Study of Water Distribution inside Tomato Cells: Effects of Water Stress. Applied Magnetic Resonance, 2010, 38, 455-469.	1.2	36
20	An investigation of the structural aspects of the tomato fruit by means of quantitative nuclear magnetic resonance imaging. Magnetic Resonance Imaging, 2009, 27, 709-719.	1.8	35
21	Determination of water self-diffusion coefficient in complex food products by low field 1H PFG-NMR: comparison between the standard spin-echo sequence and the T1-weighted spin-echo sequence. Journal of Magnetic Resonance, 2003, 165, 265-275.	2.1	33
22	Pulsed Field Gradient NMR Study of Poly(ethylene glycol) Diffusion in Whey Protein Solutions and Gels. Macromolecules, 2006, 39, 1053-1059.	4.8	32
23	Evolution of Fat Crystal Network Microstructure Followed by NMR. Journal of Agricultural and Food Chemistry, 2011, 59, 1767-1773.	5.2	32
24	MRI method for investigation of eye growth in semi-hard cheese. Journal of Food Engineering, 2014, 121, 152-158.	5.2	31
25	Nanoparticle diffusometry for quantitative assessment of submicron structure in food biopolymer networks. Trends in Food Science and Technology, 2015, 42, 13-26.	15.1	30
26	Influence of fat globule membrane composition on water holding capacity and water mobility in casein rennet gel: A nuclear magnetic resonance self-diffusion and relaxation study. International Dairy Journal, 2006, 16, 344-353.	3.0	28
27	Assessment of nutrient remobilization through structural changes of palisade and spongy parenchyma in oilseed rape leaves during senescence. Planta, 2015, 241, 333-346.	3.2	28
28	Structural Changes in Senescing Oilseed Rape Leaves at Tissue and Subcellular Levels Monitored by Nuclear Magnetic Resonance Relaxometry through Water Status. Plant Physiology, 2013, 163, 392-406.	4.8	27
29	MRI investigation of subcellular water compartmentalization and gas distribution in apples. Magnetic Resonance Imaging, 2015, 33, 671-680.	1.8	27
30	MSE-MRI sequence optimisation for measurement of bi- and tri-exponential T2 relaxation in a phantom and fruit. Magnetic Resonance Imaging, 2013, 31, 1677-1689.	1.8	26
31	Effects of Acidification with and without Rennet on a Concentrated Casein System:â€‰ A Kinetic NMR Probe Diffusion Study. Macromolecules, 2008, 41, 2079-2086.	4.8	24
32	Multi-scale investigation of eyes in semi-hard cheese. Innovative Food Science and Emerging Technologies, 2014, 24, 106-112.	5.6	22
33	The rennet coagulation mechanisms of a concentrated casein suspension as observed by PFG-NMR diffusion measurements. Food Hydrocolloids, 2012, 27, 456-463.	10.7	20
34	Effects of Casein and Fat Content on Water Self-Diffusion Coefficients in Casein Systems:â€‰ A Pulsed Field Gradient Nuclear Magnetic Resonance Study. Journal of Agricultural and Food Chemistry, 2004, 52, 3988-3995.	5.2	19
35	Assessment of the State of Water in Reconstituted Milk Protein Dispersions by Nuclear Magnetic Resonance (NMR) and Differential Scanning Calorimetry (DSC). LWT - Food Science and Technology, 2001, 34, 299-305.	5.2	18
36	Water, ice and sucrose behavior in frozen sucroseâ€“protein solutions as studied by 1H NMR. Food Chemistry, 2004, 84, 77-89.	8.2	18

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37	Effects of Crystal Growth and Polymorphism of Triacylglycerols on NMR Relaxation Parameters. 1. Evidence of a Relationship between Crystal Size and Spinâ^'Lattice Relaxation Time. Crystal Growth and Design, 2009, 9, 4273-4280.	3.0	18
38	PFG-NMR self-diffusion in casein dispersions: Effects of probe size and protein aggregate size. Food Hydrocolloids, 2013, 31, 248-255.	10.7	17
39	Probe Mobility in Native Phosphocaseinate Suspensions and in a Concentrated Rennet Gel: Effects of Probe Flexibility and Size. Journal of Agricultural and Food Chemistry, 2013, 61, 5870-5879.	5.2	17
40	Molecular Mobility in Dense Protein Systems: An Investigation through ¹H NMR Relaxometry and Diffusometry. Journal of Physical Chemistry B, 2012, 116, 11744-11753.	2.6	16
41	Sweetness and aroma perceptions in model dairy desserts: an overview. Flavour and Fragrance Journal, 2006, 21, 48-52.	2.6	15
42	PFGâ^'NMR Techniques Provide a New Tool for Continuous Investigation of the Evolution of the Casein Gel Microstructure after Renneting. Macromolecules, 2008, 41, 2071-2078.	4.8	15
43	Nitrogen deficiency impacts on leaf cell and tissue structure with consequences for senescence associated processes in Brassica napus. , 2016, 57, 11.		15
44	A mobile NMR lab for leaf phenotyping in the field. Plant Methods, 2017, 13, 53.	4.3	14
45	Effects of Ionic Strength and Denaturation Time on Polyethyleneglycol Self-Diffusion in Whey Protein Solutions and Gels Visualized by Nuclear Magnetic Resonance. Journal of Agricultural and Food Chemistry, 2006, 54, 5105-5112.	5.2	13
46	Relaxation RMN et IRMÂ: un couplage indispensable pour l'Ã©tude des produits alimentaires. Comptes Rendus Chimie, 2004, 7, 221-232.	0.5	11
47	Effects of Crystal Growth and Polymorphism of Triacylglycerols on NMR Relaxation Parameters. 2. Study of a Tricaprinâ^'Tristearin Mixture. Crystal Growth and Design, 2009, 9, 4281-4288.	3.0	11
48	Investigation of curd grains in Swiss-type cheese using light and confocal laser scanning microscopy. International Dairy Journal, 2013, 33, 10-15.	3.0	11
49	Translational and rotational diffusion of flexible PEG and rigid dendrimer probes in sodium caseinate dispersions and acid gels. Biopolymers, 2014, 101, 959-965.	2.4	11
50	NMR relaxometry as a potential non-invasive routine sensor for characterization of phenotype in Crassostrea gigas. Aquaculture, 2009, 291, 74-77.	3.5	10
51	Diffusion of polyethyleneglycols in casein solutions and gels as studied by pulsed field gradient NMR. Magnetic Resonance Imaging, 2005, 23, 347-348.	1.8	8
52	Leaf Development Monitoring and Early Detection of Water Deficiency by Low Field Nuclear Magnetic Resonance Relaxation in Nicotiana tabacum Plants. Applied Sciences (Switzerland), 2018, 8, 943.	2.5	8
53	Impact of chemical exchange on transverse relaxation at low and moderate magnetic field strengths for sugar solutions representative of fruit tissues analyzed by simulation and MRI experiments. Journal of Magnetic Resonance, 2021, 322, 106872.	2.1	7
54	NMR study of fresh cut salads: Influence of temperature and storage time on leaf structure and water distribution in escarole. Magnetic Resonance in Chemistry, 2019, 57, 626-637.	1.9	6

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55	Optimization of a maximum entropy criterion for 2D Nuclear Magnetic Resonance reconstruction. , 2010, , .		4
56	Quality analysis of blue-veined cheeses by MRI: a preliminary study. , 2003, , .		3
57	NMR Relaxometry and Imaging of Dairy Products. , 2018, , 1535-1557.		3
58	MRI Study of Temperature Dependence of Multi-exponential Transverse Relaxation Times in Tomato. Applied Magnetic Resonance, 2021, 52, 1543-1560.	1.2	2
59	Quantitative MRI analysis of structural changes in tomato tissues resulting from dehydration. Magnetic Resonance in Chemistry, 2022, 60, 637-650.	1.9	2
60	NMR Relaxometry and Imaging of Dairy Products. , 2017, , 1-23.		1
61	Water Migration and Molecular Mobility in Cakes During Storage: An NMR Investigation. , 2008, , 125-128.		0