

Olivier Vitrac

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,135
citations

361045

20
h-index

433756

31
g-index

67
all docs

67
docs citations

67
times ranked

722
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep-fat frying of food: heat and mass transfer, transformations and reactions inside the frying material. <i>European Journal of Lipid Science and Technology</i> , 2000, 102, 529-538.	1.0	94
2	Characterization of heat and mass transfer during deep-fat frying and its effect on cassava chip quality. <i>Journal of Food Engineering</i> , 2002, 53, 161-176.	2.7	77
3	Predicting diffusion coefficients of chemicals in and through packaging materials. <i>Critical Reviews in Food Science and Nutrition</i> , 2017, 57, 275-312.	5.4	58
4	Functional barriers: Properties and evaluation. <i>Food Additives and Contaminants</i> , 2005, 22, 956-967.	2.0	53
5	Risk assessment of migration from packaging materials into foodstuffs. <i>AIChE Journal</i> , 2005, 51, 1080-1095.	1.8	42
6	Interfacial mass transport properties which control the migration of packaging constituents into foodstuffs. <i>Journal of Food Engineering</i> , 2007, 79, 1048-1064.	2.7	39
7	Prediction of Partition Coefficients of Plastic Additives between Packaging Materials and Food Simulants. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 7263-7280.	1.8	38
8	Direct observation of the surface structure of French fries by UV-Vis confocal laser scanning microscopy. <i>Food Research International</i> , 2010, 43, 307-314.	2.9	34
9	Molecular dynamics simulations of the chain dynamics in monodisperse oligomer melts and of the oligomer tracer diffusion in an entangled polymer matrix. <i>Journal of Chemical Physics</i> , 2010, 132, 194902.	1.2	33
10	Diffusion of Aromatic Solutes in Aliphatic Polymers above Glass Transition Temperature. <i>Macromolecules</i> , 2013, 46, 874-888.	2.2	32
11	Decision trees as applied to the robust estimation of diffusion coefficients in polyolefins. <i>Journal of Applied Polymer Science</i> , 2006, 101, 2167-2186.	1.3	31
12	Prediction of Solute Partition Coefficients between Polyolefins and Alcohols Using a Generalized Flory-Huggins Approach. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 5285-5301.	1.8	30
13	Microscopic oil uptake mechanisms in fried products*. <i>European Journal of Lipid Science and Technology</i> , 2014, 116, 741-755.	1.0	30
14	Identification of Diffusion Transport Properties from Desorption/Sorption Kinetics: An Analysis Based on a New Approximation of Fick Equation during Solid-Liquid Contact. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 7941-7956.	1.8	28
15	Consumer exposure to substances in plastic packaging. I. Assessment of the contribution of styrene from yogurt pots. <i>Food Additives and Contaminants</i> , 2007, 24, 194-215.	2.0	26
16	Contamination of packaged food by substances migrating from a direct-contact plastic layer: Assessment using a generic quantitative household scale methodology. <i>Food Additives and Contaminants</i> , 2007, 24, 75-94.	2.0	26
17	Kinetics of moisture loss and fat absorption during frying for different varieties of plantain. <i>Journal of the Science of Food and Agriculture</i> , 1999, 79, 291-299.	1.7	22
18	Continuous measurement of convective heat flux during deep-frying: validation and application to inverse modeling. <i>Journal of Food Engineering</i> , 2003, 60, 111-124.	2.7	22

#	ARTICLE	IF	CITATIONS
19	Deep-fat frying of cassava: influence of raw material properties on chip quality. Journal of the Science of Food and Agriculture, 2001, 81, 227-236. A method for time and spatially resolved measurement of convective heat transfer coefficient	1.7	21

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#	ARTICLE	IF	CITATIONS
37	Characterization of a new bio-based and biodegradable blends of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) and poly(butylene-co-succinate-co-adipate). Journal of Applied Polymer Science, 2022, 139, .		10
38	Project SafeFoodPack Design: case study on indirect migration from paper and boards. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2017, 34, 1703-1720.	1.1	9
39	Design of modified plastic surfaces for antimicrobial applications: Impact of ionizing radiation on the physical and mechanical properties of polypropylene. Radiation Physics and Chemistry, 2013, 91, 170-179.	1.4	8
40	Sorption of <i>n</i> -hexane in amorphous polystyrene. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1252-1258.	2.4	8
41	Molecular thermodynamics for food science and engineering. Food Research International, 2016, 88, 91-104.	2.9	8
42	Rational Design of Packaging: Toward Safer and Ecodesigned Food Packaging Systems. Frontiers in Chemistry, 2019, 7, 349.	1.8	8
43	Coupling between oxidation kinetics and anisothermal oil flow during deep-fat frying. Physics of Fluids, 2021, 33, .	1.6	8
44	Assessment of continuous distribution of wood properties from a low number of samples: Application to the variability of modulus of elasticity between trees and within a tree. Holzforschung, 2005, 59, 524-530.	0.9	7
45	Risk Assessment of Migration From Packaging Materials Into Food. , 2019, , .		7
46	Local demixion in plasticized polylactide probed by electron spin resonance. Journal of Magnetic Resonance, 2013, 233, 37-48.	1.2	6
47	The Ubiquitous Issue of Cross-Mass Transfer: Applications to Single-Use Systems. Molecules, 2019, 24, 3467.	1.7	5
48	Pervaporative Dehydration of Bioethanol using Silica and PVA Membranes: Analysis of Permeation Performances and Effect of Volatile Organic Impurities. Procedia Engineering, 2012, 44, 1173-1176.	1.2	4
49	A Two-Scale Pursuit Method for the Tailored Identification and Quantification of Unknown Polymer Additives and Contaminants by ¹ H NMR. Industrial & Engineering Chemistry Research, 2015, 54, 2667-2681.	1.8	4
50	In Silico Prediction of Food Properties: A Multiscale Perspective. Frontiers in Chemical Engineering, 2022, 3, .	1.3	4
51	Food Process Modeling. , 2019, , 434-454.		3
52	Modeling in food across the scales: towards a universal mass transfer simulator of small molecules in food. SN Applied Sciences, 2020, 2, 1.	1.5	3
53	Mechanisms of Oil Uptake in French Fries. , 2016, , 503-526.		2
54	Mathematical modeling of Computer-aided food engineering. , 2022, , 277-290.		2

#	ARTICLE	IF	CITATIONS
55	Prediction of partition coefficients between food simulants and packaging materials using molecular simulation and a generalized Flory-Huggins approach. Computer Aided Chemical Engineering, 2008, 25, 811-816.	0.3	1
56	Controlling the Molecular Interactions to Improve the Diffusion Barrier of Biosourced Polymers to Organic Solutes. Defect and Diffusion Forum, 0, 323-325, 269-274.	0.4	1
57	Effective transport properties of food products calculated from principles of statistical physics. , 2006, , .		1
58	Bringing New Function to Packaging Materials by Agricultural By-Products. , 2020, , 227-257.		1
59	Influence of Liquid Water Transport on Heat and Mass Transfer during Deep- Fat Frying. Food Preservation Technology, 2002, , .	0.0	0
60	Molecular Modeling of Thermodynamical Properties of the Poly (Vinyl alcohol) Active Layer used in Ethanol Pervaporation Dehydration Processes. Procedia Engineering, 2012, 44, 1920-1922.	1.2	0