Frank Welle

List of Publications by Year
in descending order

55 papers	1,862 citations	218677 26 h-index	265206 42 g-index
57 all docs	57 docs citations	57 times ranked	1473 citing authors

#	Article	IF	Citations
1	Twenty years of PET bottle to bottle recyclingâ€"An overview. Resources, Conservation and Recycling, 2011, 55, 865-875.	10.8	430
2	Migration of antimony from PET bottles into beverages: determination of the activation energy of diffusion and migration modelling compared with literature data. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2011, 28, 115-126.	2.3	92
3	Microplastic in bottled natural mineral water â€“ literature review and considerations on exposure and risk assessment. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2018, 35, 2482-2492.	2.3	78
4	European survey on post-consumer poly(ethylene terephthalate) (PET) materials to determine contamination levels and maximum consumer exposure from food packages made from recycled PET. Food Additives and Contaminants, 2004, 21, 265-286.	2.0	75
5	The effects of Î³-irradiation on compositional changes in plastic packaging films. Packaging Technology and Science, 1999, 12, 119-130.	2.8	73
6	Migration measurement and modelling from poly(ethylene terephthalate) (PET) into soft drinks and fruit juices in comparison with food simulants. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2008, 25, 1033-1046.	2.3	60
7	Diffusion coefficients and activation energies of diffusion of low molecular weight migrants in Poly(ethylene terephthalate) bottles. Polymer Testing, 2012, 31, 93-101.	4.8	51
8	Recycled poly(ethylene terephthalate) for direct food contact applications: challenge test of an inline recycling process. Food Additives and Contaminants, 2002, 19, 502-511.	2.0	50
9	A new method for the prediction of diffusion coefficients in poly(ethylene terephthalate). Journal of Applied Polymer Science, 2013, 129, 1845-1851.	2.6	50
10	Investigation into the sorption of nitroglycerin and diazepam into PVC tubes and alternative tube materials during application. International Journal of Pharmaceutics, 2009, 369, 30-37.	5.2	47
11	Migration and sensory changes of packaging materials caused by ionising radiation. Radiation Physics and Chemistry, 2002, 63, 841-844.	2.8	46
12	Post-consumer contamination in high-density polyethylene (HDPE) milk bottles and the design of a bottle-to-bottle recycling process. Food Additives and Contaminants, 2005, 22, 999-1011.	2.0	46
13	Circularity Study on PET Bottle-To-Bottle Recycling. Sustainability, 2021, 13, 7370.	3.2	42
14	Litsea cubeba fruit essential oil and its major constituent citral as volatile agents in an antimicrobial packaging material.. Food Microbiology, 2021, 96, 103725.	4.2	40
15	Contamination Levels in Recollected PET Bottles from Non-Food Applications and their Impact on the Safety of Recycled PET for Food Contact. Molecules, 2020, 25, 4998.	3.8	39
16	Intra-oral detection of potent odorants using a modi?ed stir-bar sorptive extraction system in combination with HRGC-O, known as the buccal odour screening system (BOSS). Flavour and Fragrance Journal, 2004, 19, 505-514.	2.6	38
17	Recycling of Post-Consumer Packaging Materials into New Food Packaging Applicationsâ€"Critical Review of the European Approach and Future Perspectives. Sustainability, 2022, 14, 824.	3.2	38
18	Is PET bottle-to-bottle recycling safe? Evaluation of post-consumer recycling processes according to the EFSA guidelines. Resources, Conservation and Recycling, 2013, 73, 41-45.	10.8	35

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19	Effect of recycled content and rPET quality on the properties of PET bottles, part II: Migration. Packaging Technology and Science, 2020, 33, 359-371.	2.8	33
20	Substituenteneffekte auf die Cï£¿Câ€Bindungsstärke, 14. Kinetische und thermodynamische Stabilität von 2,3â€Bis(dialkylamino)â€1,4â€diketonen â€" Stabilisierungsenergie captoâ€dativ substituierter aâ€Dialkylaminoâ€aâ€Carbonylalkylâ€Radikale. Chemische Berichte, 1994, 127, 697-710.	0.2	31
21	Permeation of Mineral Oil Components from Cardboard Packaging Materials through Polymer Films. Packaging Technology and Science, 2013, 26, 423-434.	2.8	31
22	Diffusion Coefficients and Activation Energies of Diffusion of Organic Molecules in Polystyrene below and above Glass Transition Temperature. Polymers, 2021, 13, 1317.	4.5	31
23	Determination of the activation energies of diffusion of organic molecules in poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	2.6	29
24	Migration and sensory evaluation of irradiated polymers. Radiation Physics and Chemistry, 2004, 71, 205-208.	2.8	28
25	Chemical Migration from Beverage Packaging Materialsâ€"A Review. Beverages, 2020, 6, 37.	2.8	28
26	Decontamination efficiency of a new post-consumer poly(ethylene terephthalate) (PET) recycling concept. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2008, 25, 123-131.	2.3	27
27	Investigation into cross-contamination during cleaning efficiency testing in PET recycling. Resources, Conservation and Recycling, 2016, 112, 65-72.	10.8	26
28	Migration Testing of Polyethylene Terephthalate: Comparison of Regulated Test Conditions with Migration into Real Food at the End of Shelf Life. Packaging Technology and Science, 2018, 31, 771-780.	2.8	20
29	Determination and Prediction of the Lag Times of Hydrocarbons through a Polyethylene Terephthalate Film. Packaging Technology and Science, 2014, 27, 963-974.	2.8	19
30	How to determine functional barrier performance towards mineral oil contaminants from recycled cardboard. Food Packaging and Shelf Life, 2015, 5, 41-49.	7.5	18
31	Food Law Compliance of Poly(ethylene Terephthalate) (PET) Food Packaging Materials. ACS Symposium Series, 2014, , 167-195.	0.5	16
32	Migration of Bisphenol A from Can Coatings into Beverages at the End of Shelf Life Compared to Regulated Test Conditions. Beverages, 2019, 5, 3.	2.8	16
33	SiO_xlayer as functional barrier in polyethylene terephthalate (PET) bottles against potential contaminants from post-consumer recycled PET. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2008, 25, 788-794.	2.3	15
34	Diffusion Coefficients of n-Alkanes and 1-Alcohols in Polyethylene Naphthalate (PEN). International Journal of Polymer Science, 2019, 2019, 1-9.	2.7	14
35	Migration from acrylonitrile butadiene styrene (ABS) polymer: swelling effect of food simulants compared to real foods. Journal Fur Verbraucherschutz Und Lebensmittelsicherheit, 2021, 16, 19-33.	1.4	14
36	Activation energies of diffusion of organic migrants in cyclo olefin polymer. International Journal of Pharmaceutics, 2014, 473, 510-517.	5.2	13

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37	Migration of Styrene in Yogurt and Dairy Products Packaged in Polystyrene: Results from Market Samples. Foods, 2022, 11, 2120.	4.3	13
38	Comment on "exposure to microplastics (<10 Î¼m) associated to plastic bottles mineral water consumption: The first quantitative study by Zuccarello etÂal. [Water Research 157 (2019) 365â€“371]". Water Research, 2019, 162, 516-517.	11.3	12
39	Functional Barrier Performance of a Polyamide-6 Membrane Towards n -Alkanes and 1-Alcohols. Packaging Technology and Science, 2016, 29, 277-287.	2.8	11
40	Simulation of the Decontamination Efficiency of PET Recycling Processes based on Solidâ€state Polycondensation. Packaging Technology and Science, 2014, 27, 141-148.	2.8	10
41	A blob model to parameterize polymer hole free volumes and solute diffusion. Soft Matter, 2019, 15, 8912-8932.	2.7	10
42	Quantification of the Sorption Behavior of Polyethylene Terephthalate Polymer versus PET/PA Polymer Blends towards Organic Compounds. Packaging Technology and Science, 2012, 25, 341-349.	2.8	9
43	Diffusion behaviour of the acetaldehyde scavenger 2-aminobenzamide in polyethylene terephthalate for beverage bottles. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2016, 33, 1-9.	2.3	9
44	Migration Testing of GPPS and HIPS Polymers: Swelling Effect Caused by Food Simulants Compared to Real Foods. Molecules, 2022, 27, 823.	3.8	8
45	Effect of Ionizing Radiation on the Migration Behavior and Sensory Properties of Plastic Packaging Materials. ACS Symposium Series, 2004, , 236-261.	0.5	7
46	Recyclable Multilayer Packaging by Means of Thermoreversibly Crosslinking Adhesive in the Context of Food Law. Polymers, 2020, 12, 2988.	4.5	7
47	A new method for the prediction of diffusion coefficients in poly(ethylene terephthalate)â€"Validation data. Packaging Technology and Science, 2022, 35, 405-413.	2.8	6
48	Impact of Partitioning in Short-Term Food Contact Applications Focused on Polymers in Support of Migration Modelling and Exposure Risk Assessment. Molecules, 2022, 27, 121.	3.8	5
49	Recycled plastics and chemical migration into food. , 2007, , 205-227.		2
50	Migration of Acetaldehyde From PET Bottles Into Natural Mineral Water. , 2018, , .		2
51	Safety Evaluation of Polyethylene Terephthalate Chemical Recycling Processes. Sustainability, 2021, 13, 12854.	3.2	2
52	Moisture management for a successful analysis of polymers with chemical sensor systems. Sensors and Actuators B: Chemical, 2000, 69, 372-378.	7.8	1
53	Migration of Acetaldehyde Scavengers From PET Bottles. , 2017, , .		1
54	Diffusion in barriers: Insights from flux tests. Polymer Testing, 2019, 78, 105982.	4.8	1

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55	Food Package Testing Authorities and Regulations. , 2017, , 303-332.		0