Maria Charalambides

List of Publications by Year
in descending order

63 papers	1,422 citations	279798 23 h-index	361022 35 g-index
63 all docs	63 docs citations	63 times ranked	995 citing authors

#	Article	IF	Citations
1	Effect of structure on the mechanical and physical properties of chocolate considering time scale phenomena occurring during oral processing. Food Structure, 2022, 31, 100244.	4.5	13
2	Food modelling strategies and approaches for knowledge transfer. Trends in Food Science and Technology, 2022, 120, 363-373.	15.1	16
3	A microstructure image-based numerical model for predicting the fracture toughness of alumina trihydrate (ATH) ï¬lled poly(methyl methacrylate) (PMMA) composites. Composites Part B: Engineering, 2022, 232, 109632.	12.0	3
4	Experimental and numerical evaluation of the effect of micro-aeration on the thermal properties of chocolate. Food and Function, 2022, 13, 4993-5010.	4.6	11
5	A methodology for the use of alkyd paint in thermally aged easel painting reconstructions for mechanical testing. Journal of Cultural Heritage, 2022, 55, 237-244.	3.3	1
6	Towards optimisation of rolling process of potato dough: Effect of processing on the microstructure and the mechanical properties. Journal of Food Engineering, 2021, 291, 110314.	5.2	2
7	Modelling Processes and Products in the Cereal Chain. Foods, 2021, 10, 82.	4.3	4
8	Advancing mechanical recycling of multilayer plastics through finite element modelling and environmental policy. Resources, Conservation and Recycling, 2021, 166, 105371.	10.8	27
9	A numerical investigation of interfacial and channelling crack growth rates under low-cycle fatigue in bi-layer materials relevant to cultural heritage. Journal of Cultural Heritage, 2021, 49, 70-78.	3.3	7
10	Effect of micro-aeration on the mechanical behaviour of chocolates and implications for oral processing. Food and Function, 2021, 12, 4864-4886.	4.6	18
11	Eulerian-Lagrangian finite element modelling of food flow-fracture in the stomach to engineer digestion. Innovative Food Science and Emerging Technologies, 2020, 66, 102510.	5.6	12
12	Development of computational design tools for characterising and modelling cutting in ultra soft solids. Extreme Mechanics Letters, 2020, 40, 100964.	4.1	8
13	A natural mutation in Pisum sativum L. (pea) alters starch assembly and improves glucose homeostasis in humans. Nature Food, 2020, 1, 693-704.	14.0	37
14	Hierarchical multi-scale models for mechanical response prediction of highly filled elasticâ€"plastic and viscoplastic particulate composites. Computational Materials Science, 2020, 181, 109734.	3.0	6
15	Mechanical characterization of the nitrocellulose-based visco-hyperelastic binder in polymer bonded explosives. Physics of Fluids, 2020, 32, 023103.	4.0	7
16	Mechanical Characterisation and modelling of the rolling process of potato-based dough. Journal of Food Engineering, 2020, 278, 109943.	5.2	9
17	Measurement of molten chocolate friction under simulated tongue-palate kinematics: Effect of cocoa solids content and aeration. Current Research in Food Science, 2020, 3, 304-313.	5.8	21
18	Computer simulations of food oral processing to engineer teeth cleaning. Nature Communications, 2019, 10, 3571.	12.8	15

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19	Cross-European initial survey on the use of mathematical models in food industry. Journal of Food Engineering, 2019, 261, 109-116.	5.2	23
20	Experimental and numerical investigation of high velocity soft impact loading on aircraft materials. Aerospace Science and Technology, 2019, 90, 44-58.	4.8	47
21	On modelling the constitutive and damage behaviour of highly non-linear bio-composites â€“ Mesh sensitivity of the viscoplastic-damage law computations. International Journal of Plasticity, 2019, 114, 40-62.	8.8	20
22	Development of an image-based numerical model for predicting the microstructureâ€“property relationship in alumina trihydrate (ATH) filled poly(methyl methacrylate) (PMMA). International Journal of Fracture, 2018, 211, 125-148.	2.2	10
23	Quantifying the differences in structure and mechanical response of confectionery products resulting from the baking and extrusion processes. Journal of Food Engineering, 2018, 238, 112-121.	5.2	9
24	Effect of the polymer interlayer on the high-velocity soft impact response of laminated glass plates. International Journal of Impact Engineering, 2018, 120, 150-170.	5.0	33
25	Toughening and stiffening of starch food extrudates through the addition of cellulose fibres and minerals. Food Hydrocolloids, 2018, 84, 515-528.	10.7	11
26	Deformation and damage mechanisms of laminated glass windows subjected to high velocity soft impact. International Journal of Solids and Structures, 2017, 109, 46-62.	2.7	53
27	A novel essential work of fracture experimental methodology for highly dissipative materials. Polymer, 2017, 117, 167-182.	3.8	17
28	Mechanical and microstructural changes of cheese cracker dough during baking. LWT - Food Science and Technology, 2017, 86, 148-158.	5.2	9
29	On modeling the large strain fracture behaviour of soft viscous foods. Physics of Fluids, 2017, 29, .	4.0	26
30	A comparison of the mechanical and sensory properties of baked and extruded confectionery products. AIP Conference Proceedings, 2017, , .	0.4	1
31	Chewing as a forming application: A viscoplastic damage law in modelling food oral breakdown. AIP Conference Proceedings, 2017, , .	0.4	1
32	Fracture investigation in starch-based foods. Interface Focus, 2016, 6, 20160005.	3.0	19
33	Experimental and numerical investigation of ram extrusion of bread dough. AIP Conference Proceedings, 2016, , .	0.4	1
34	A micromechanics model for bread dough. , 2015, , .		0
35	Modelling the damage and deformation process in a plastic bonded explosive microstructure under tension using the finite element method. Computational Materials Science, 2015, 110, 91-101.	3.0	55
36	Modelling and experimental characterisation of the rate dependent fracture properties of gelatine gels. Food Hydrocolloids, 2015, 46, 180-190.	10.7	71

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37	The effects of strain rate and temperature on commercial acrylic artist paints aged one year to decades. Applied Physics A: Materials Science and Processing, 2015, 121, 823-835.	2.3	5
38	Modelling the microstructural evolution and fracture of a brittle confectionery wafer in compression. Innovative Food Science and Emerging Technologies, 2014, 24, 48-60.	5.6	24
39	Prediction of delamination in multilayer artist paints under low amplitude fatigue loading. Engineering Fracture Mechanics, 2013, 112-113, 41-57.	4.3	13
40	Mechanical characterization and micromechanical modeling of bread dough. Journal of Rheology, 2013, 57, 249-272.	2.6	66
41	Modelling the deformation of a confectionery wafer as a non-uniform sandwich structure. Journal of Materials Science, 2013, 48, 2462-2478.	3.7	9
42	Micromechanical modelling of alumina trihydrate filled poly (methyl methacrylate) composites. International Journal of Materials and Structural Integrity, 2013, 7, 31.	0.1	3
43	Image-based modelling of binary composites. Computational Materials Science, 2012, 64, 183-186.	3.0	25
44	Influence of the inorganic phase concentration and geometry on the viscoelastic properties of latex coatings through the glass-transition. Polymer, 2011, 52, 1662-1673.	3.8	19
45	The Fracture Toughness of a Highly Filled Polymer Composite. , 2011, , 447-459.		3
46	Micromechanical models for stiffness prediction of alumina trihydrate (ATH) reinforced poly (methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Technology, 2009, 69, 2015-2023.	7.8	25
47	Determination of large deformation and fracture behaviour of starch gels from conventional and wire cutting experiments. Journal of Materials Science, 2009, 44, 4976-4986.	3.7	43
48	Tensile properties of latex paint films with TiO2Âpigment. Mechanics of Time-Dependent Materials, 2009, 13, 149-161.	4.4	23
49	The mechanical properties of model-compacted tablets. Journal of Materials Science, 2008, 43, 7171-7178.	3.7	3
50	Characterisation of Large Deformation Behaviour of Starch Gels Using Compression and Indentation Techniques. AIP Conference Proceedings, 2008, , .	0.4	0
51	Characterisation of Fracture Behaviour of Starch Gels Using Conventional Fracture Mechanics and Wire Cutting Tests. AIP Conference Proceedings, 2008, , .	0.4	1
52	Sheeting of wheat flour dough. International Journal of Food Science and Technology, 2007, 42, 699-707.	2.7	25
53	Large deformation extensional rheology of bread dough. Rheologica Acta, 2006, 46, 239-248.	2.4	50
54	On the mechanics of wire cutting of cheese. Engineering Fracture Mechanics, 2005, 72, 931-946.	4.3	74

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55	Effect of friction on uniaxial compression of bread dough. Journal of Materials Science, 2005, 40, 3375-3381.	3.7	43
56	Determination of the Constitutive Constants of Non-Linear Viscoelastic Materials. Mechanics of Time-Dependent Materials, 2004, 8, 255-268.	4.4	116
57	Characterisation of non-linear viscoelastic foods by the indentation technique. Rheologica Acta, 2004, 44, 47-54.	2.4	11
58	Large strain time dependent behavior of cheese. Journal of Rheology, 2003, 47, 701-716.	2.6	28
59	Biaxial deformation of dough using the bubble inflation technique. I. Experimental. Rheologica Acta, 2002, 41, 532-540.	2.4	45
60	Biaxial deformation of dough using the bubble inflation technique. II. Numerical modelling. Rheologica Acta, 2002, 41, 541-548.	2.4	28
61	The analysis of the frictional effect on stress - strain data from uniaxial compression of cheese. Journal of Materials Science, 2001, 36, 2313-2321.	3.7	36
62	A study of the influence of ageing on the mechanical properties of Cheddar cheese. Journal of Materials Science, 1995, 30, 3959-3967.	3.7	58
63	Fracture toughness characterization of phenolic resin and its composite. Polymer Composites, 1995, 16, 17-28.	4.6	23