

Maria Charalambides

List of Publications by Year in descending order

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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	Determination of the Constitutive Constants of Non-Linear Viscoelastic Materials. <i>Mechanics of Time-Dependent Materials</i> , 2004, 8, 255-268.	4.4	116
2	On the mechanics of wire cutting of cheese. <i>Engineering Fracture Mechanics</i> , 2005, 72, 931-946.	4.3	74
3	Modelling and experimental characterisation of the rate dependent fracture properties of gelatine gels. <i>Food Hydrocolloids</i> , 2015, 46, 180-190.	10.7	71
4	Mechanical characterization and micromechanical modeling of bread dough. <i>Journal of Rheology</i> , 2013, 57, 249-272.	2.6	66
5	A study of the influence of ageing on the mechanical properties of Cheddar cheese. <i>Journal of Materials Science</i> , 1995, 30, 3959-3967.	3.7	58
6	Modelling the damage and deformation process in a plastic bonded explosive microstructure under tension using the finite element method. <i>Computational Materials Science</i> , 2015, 110, 91-101.	3.0	55
7	Deformation and damage mechanisms of laminated glass windows subjected to high velocity soft impact. <i>International Journal of Solids and Structures</i> , 2017, 109, 46-62.	2.7	53
8	Large deformation extensional rheology of bread dough. <i>Rheologica Acta</i> , 2006, 46, 239-248.	2.4	50
9	Experimental and numerical investigation of high velocity soft impact loading on aircraft materials. <i>Aerospace Science and Technology</i> , 2019, 90, 44-58.	4.8	47
10	Biaxial deformation of dough using the bubble inflation technique. I. Experimental. <i>Rheologica Acta</i> , 2002, 41, 532-540.	2.4	45
11	Effect of friction on uniaxial compression of bread dough. <i>Journal of Materials Science</i> , 2005, 40, 3375-3381.	3.7	43
12	Determination of large deformation and fracture behaviour of starch gels from conventional and wire cutting experiments. <i>Journal of Materials Science</i> , 2009, 44, 4976-4986.	3.7	43
13	A natural mutation in <i>Pisum sativum</i> L. (pea) alters starch assembly and improves glucose homeostasis in humans. <i>Nature Food</i> , 2020, 1, 693-704.	14.0	37
14	The analysis of the frictional effect on stress - strain data from uniaxial compression of cheese. <i>Journal of Materials Science</i> , 2001, 36, 2313-2321.	3.7	36
15	Effect of the polymer interlayer on the high-velocity soft impact response of laminated glass plates. <i>International Journal of Impact Engineering</i> , 2018, 120, 150-170.	5.0	33
16	Biaxial deformation of dough using the bubble inflation technique. II. Numerical modelling. <i>Rheologica Acta</i> , 2002, 41, 541-548.	2.4	28
17	Large strain time dependent behavior of cheese. <i>Journal of Rheology</i> , 2003, 47, 701-716.	2.6	28
18	Advancing mechanical recycling of multilayer plastics through finite element modelling and environmental policy. <i>Resources, Conservation and Recycling</i> , 2021, 166, 105371.	10.8	27

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19	On modeling the large strain fracture behaviour of soft viscous foods. <i>Physics of Fluids</i> , 2017, 29, .	4.0	26
20	Sheeting of wheat flour dough. <i>International Journal of Food Science and Technology</i> , 2007, 42, 699-707.	2.7	25
21	Micromechanical models for stiffness prediction of alumina trihydrate (ATH) reinforced poly (methyl Tj ETQq1 1 0.784314 rgBT /Over Technology, 2009, 69, 2015-2023.	7.8	25
22	Image-based modelling of binary composites. <i>Computational Materials Science</i> , 2012, 64, 183-186.	3.0	25
23	Modelling the microstructural evolution and fracture of a brittle confectionery wafer in compression. <i>Innovative Food Science and Emerging Technologies</i> , 2014, 24, 48-60.	5.6	24
24	Fracture toughness characterization of phenolic resin and its composite. <i>Polymer Composites</i> , 1995, 16, 17-28.	4.6	23
25	Tensile properties of latex paint films with TiO2 pigment. <i>Mechanics of Time-Dependent Materials</i> , 2009, 13, 149-161.	4.4	23
26	Cross-European initial survey on the use of mathematical models in food industry. <i>Journal of Food Engineering</i> , 2019, 261, 109-116.	5.2	23
27	Measurement of molten chocolate friction under simulated tongue-palate kinematics: Effect of cocoa solids content and aeration. <i>Current Research in Food Science</i> , 2020, 3, 304-313.	5.8	21
28	On modelling the constitutive and damage behaviour of highly non-linear bio-composites – Mesh sensitivity of the viscoplastic-damage law computations. <i>International Journal of Plasticity</i> , 2019, 114, 40-62.	8.8	20
29	Influence of the inorganic phase concentration and geometry on the viscoelastic properties of latex coatings through the glass-transition. <i>Polymer</i> , 2011, 52, 1662-1673.	3.8	19
30	Fracture investigation in starch-based foods. <i>Interface Focus</i> , 2016, 6, 20160005.	3.0	19
31	Effect of micro-aeration on the mechanical behaviour of chocolates and implications for oral processing. <i>Food and Function</i> , 2021, 12, 4864-4886.	4.6	18
32	A novel essential work of fracture experimental methodology for highly dissipative materials. <i>Polymer</i> , 2017, 117, 167-182.	3.8	17
33	Food modelling strategies and approaches for knowledge transfer. <i>Trends in Food Science and Technology</i> , 2022, 120, 363-373.	15.1	16
34	Computer simulations of food oral processing to engineer teeth cleaning. <i>Nature Communications</i> , 2019, 10, 3571.	12.8	15
35	Prediction of delamination in multilayer artist paints under low amplitude fatigue loading. <i>Engineering Fracture Mechanics</i> , 2013, 112-113, 41-57.	4.3	13
36	Effect of structure on the mechanical and physical properties of chocolate considering time scale phenomena occurring during oral processing. <i>Food Structure</i> , 2022, 31, 100244.	4.5	13

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37	Eulerian-Lagrangian finite element modelling of food flow-fracture in the stomach to engineer digestion. <i>Innovative Food Science and Emerging Technologies</i> , 2020, 66, 102510.	5.6	12
38	Characterisation of non-linear viscoelastic foods by the indentation technique. <i>Rheologica Acta</i> , 2004, 44, 47-54.	2.4	11
39	Toughening and stiffening of starch food extrudates through the addition of cellulose fibres and minerals. <i>Food Hydrocolloids</i> , 2018, 84, 515-528.	10.7	11
40	Experimental and numerical evaluation of the effect of micro-aeration on the thermal properties of chocolate. <i>Food and Function</i> , 2022, 13, 4993-5010.	4.6	11
41	Development of an image-based numerical model for predicting the microstructure-property relationship in alumina trihydrate (ATH) filled poly(methyl methacrylate) (PMMA). <i>International Journal of Fracture</i> , 2018, 211, 125-148.	2.2	10
42	Modelling the deformation of a confectionery wafer as a non-uniform sandwich structure. <i>Journal of Materials Science</i> , 2013, 48, 2462-2478.	3.7	9
43	Mechanical and microstructural changes of cheese cracker dough during baking. <i>LWT - Food Science and Technology</i> , 2017, 86, 148-158.	5.2	9
44	Quantifying the differences in structure and mechanical response of confectionery products resulting from the baking and extrusion processes. <i>Journal of Food Engineering</i> , 2018, 238, 112-121.	5.2	9
45	Mechanical Characterisation and modelling of the rolling process of potato-based dough. <i>Journal of Food Engineering</i> , 2020, 278, 109943.	5.2	9
46	Development of computational design tools for characterising and modelling cutting in ultra soft solids. <i>Extreme Mechanics Letters</i> , 2020, 40, 100964.	4.1	8
47	Mechanical characterization of the nitrocellulose-based visco-hyperelastic binder in polymer bonded explosives. <i>Physics of Fluids</i> , 2020, 32, 023103.	4.0	7
48	A numerical investigation of interfacial and channelling crack growth rates under low-cycle fatigue in bi-layer materials relevant to cultural heritage. <i>Journal of Cultural Heritage</i> , 2021, 49, 70-78.	3.3	7
49	Hierarchical multi-scale models for mechanical response prediction of highly filled elastic-plastic and viscoplastic particulate composites. <i>Computational Materials Science</i> , 2020, 181, 109734.	3.0	6
50	The effects of strain rate and temperature on commercial acrylic artist paints aged one year to decades. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 121, 823-835.	2.3	5
51	Modelling Processes and Products in the Cereal Chain. <i>Foods</i> , 2021, 10, 82.	4.3	4
52	The mechanical properties of model-compacted tablets. <i>Journal of Materials Science</i> , 2008, 43, 7171-7178.	3.7	3
53	Micromechanical modelling of alumina trihydrate filled poly (methyl methacrylate) composites. <i>International Journal of Materials and Structural Integrity</i> , 2013, 7, 31.	0.1	3
54	The Fracture Toughness of a Highly Filled Polymer Composite. , 2011, , 447-459.		3

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55	A microstructure image-based numerical model for predicting the fracture toughness of alumina trihydrate (ATH) filled poly(methyl methacrylate) (PMMA) composites. Composites Part B: Engineering, 2022, 232, 109632.	12.0	3
56	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
57	Characterisation of Fracture Behaviour of Starch Gels Using Conventional Fracture Mechanics and Wire Cutting Tests. AIP Conference Proceedings, 2008, , .	0.4	1
58	Experimental and numerical investigation of ram extrusion of bread dough. AIP Conference Proceedings, 2016, , .	0.4	1
59	A comparison of the mechanical and sensory properties of baked and extruded confectionery products. AIP Conference Proceedings, 2017, , .	0.4	1
60	Chewing as a forming application: A viscoplastic damage law in modelling food oral breakdown. AIP Conference Proceedings, 2017, , .	0.4	1
61	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
62	Characterisation of Large Deformation Behaviour of Starch Gels Using Compression and Indentation Techniques. AIP Conference Proceedings, 2008, , .	0.4	0
63	A micromechanics model for bread dough. , 2015, , .		0