

Guillaume Parry

List of Publications by Year in descending order

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68
papers

1,285
citations

361413

20
h-index

377865

34
g-index

70
all docs

70
docs citations

70
times ranked

1286
citing authors

#	ARTICLE	IF	CITATIONS
1	Damage and fracture of dual-phase steels: Influence of martensite volume fraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 646, 322-331.	5.6	104
2	Influence of martensite volume fraction and hardness on the plastic behavior of dual-phase steels: Experiments and micromechanical modeling. <i>International Journal of Plasticity</i> , 2016, 80, 187-203.	8.8	87
3	Potential-based and non-potential-based cohesive zone formulations under mixed-mode separation and over-closure. Part I: Theoretical analysis. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 63, 336-362.	4.8	84
4	How Does Adhesion Induce the Formation of Telephone Cord Buckles?. <i>Physical Review Letters</i> , 2012, 108, 116102.	7.8	78
5	Effect of substrate compliance on the global unilateral post-buckling of coatings: AFM observations and finite element calculations. <i>Acta Materialia</i> , 2005, 53, 441-447.	7.9	75
6	Material interface effects on the topology optimization of multi-phase structures using a level set method. <i>Structural and Multidisciplinary Optimization</i> , 2014, 50, 623-644.	3.5	69
7	Stability diagram of unilateral buckling patterns of strip-delaminated films. <i>Physical Review E</i> , 2006, 74, 066601.	2.1	58
8	Buckling and post-buckling of stressed straight-sided wrinkles: experimental AFM observations of bubbles formation and finite element simulations. <i>Acta Materialia</i> , 2004, 52, 3959-3966.	7.9	45
9	New insight into crack formation during corrosion of zirconium-based metal-oxide systems. <i>Acta Materialia</i> , 2013, 61, 4374-4383.	7.9	43
10	Design of thermoelastic multi-material structures with graded interfaces using topology optimization. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 823-837.	3.5	43
11	3D Imaging of a Dislocation Loop at the Onset of Plasticity in an Indented Nanocrystal. <i>Nano Letters</i> , 2017, 17, 6696-6701.	9.1	37
12	High temperature behavior of the metal/oxide interface of ferritic stainless steels. <i>Corrosion Science</i> , 2012, 59, 148-156.	6.6	35
13	Telephone cord buckles – A relation between wavelength and adhesion. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 75, 93-103.	4.8	32
14	From telephone cords to branched buckles: A phase diagram. <i>Acta Materialia</i> , 2017, 125, 524-531.	7.9	27
15	Thermomechanical finite element modeling of Cu/SiO ₂ direct hybrid bonding with a dishing effect on Cu surfaces. <i>International Journal of Solids and Structures</i> , 2017, 117, 208-220.	2.7	26
16	Potential-based and non-potential-based cohesive zone formulations under mixed-mode separation and over-closure – Part II: Finite element applications. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 63, 363-385.	4.8	25
17	Investigation of the fracture of very thin amorphous alumina film during spherical nanoindentation. <i>Thin Solid Films</i> , 2017, 638, 34-47.	1.8	25
18	Relationship Between Microstructure, Strength, and Fracture in an Al-Zn-Mg Electron Beam Weld: Part II: Mechanical Characterization and Modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 6141-6152.	2.2	22

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19	Topology optimization in acoustics and elasto-acoustics via a level-set method. <i>Journal of Sound and Vibration</i> , 2018, 420, 73-103.	3.9	22
20	In situ x-ray diffraction analysis of 2D crack patterning in thin films. <i>Acta Materialia</i> , 2019, 165, 177-182.	7.9	21
21	Micromechanics of high-temperature damage in dual-phase stainless steel. <i>Acta Materialia</i> , 2010, 58, 626-637.	7.9	18
22	A model for patterned interfaces debonding “ Application to adhesion tests. <i>International Journal of Solids and Structures</i> , 2015, 75-76, 122-133.	2.7	18
23	How soft substrates affect the buckling delamination of thin films through crack front sink-in. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	18
24	Effect of plasticity and atmospheric pressure on the formation of donut- and croissantlike buckles. <i>Physical Review E</i> , 2015, 91, 012410.	2.1	16
25	Analysis of the multi-cracking mechanism of brittle thin films on elastic-plastic substrates. <i>International Journal of Solids and Structures</i> , 2019, 180-181, 176-188.	2.7	16
26	Buckle depression as a signature of Young’s modulus mismatch between a film and its substrate. <i>Thin Solid Films</i> , 2018, 645, 379-382.	1.8	14
27	Snapthrough occurring in the postbuckling of thin films. <i>Applied Physics Letters</i> , 2005, 86, 081905.	3.3	13
28	Strain inhomogeneity in copper islands probed by coherent X-ray diffraction. <i>Thin Solid Films</i> , 2013, 530, 120-124.	1.8	13
29	Kinetic evolution of blistering in hydrogen-implanted silicon. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	13
30	Relationship Between Microstructure, Strength, and Fracture in an Al-Zn-Mg Electron Beam Weld: Part I: Microstructure Characterization. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 6129-6140.	2.2	13
31	Deformation behavior of lean duplex stainless steels with strain induced martensitic transformation: Role of deformation mechanisms, alloy chemistry and predeformation. <i>Materialia</i> , 2019, 5, 100190.	2.7	13
32	Interacting straight-sided buckles: An enhanced attraction by substrate elasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 124, 526-535.	4.8	13
33	Chip to wafer copper direct bonding electrical characterization and thermal cycling. , 2013, , .		12
34	Modeling the thermal shock induced cracking in ceramics. <i>Journal of the European Ceramic Society</i> , 2020, 40, 1513-1521.	5.7	12
35	Modified 4-Point Bending Test for Adhesion Measurement at the Interface of Iron Coated with Aluminum Casting Alloy. <i>Journal of Adhesion Science and Technology</i> , 2012, 26, 1-17.	2.6	11
36	Mechanical resistance of patterned BCB bonded joints for MEMS packaging. <i>Microelectronic Engineering</i> , 2013, 111, 39-44.	2.4	11

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37	Understanding Crack Formation at the Metal/Oxide Interface During Corrosion of Zircaloy-4 Using a Simple Mechanical Model. Journal of ASTM International, 2011, 8, 1-18.	0.2	11
38	An analytical solution for the stress state at stent-coating interfaces. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 10, 183-196.	3.1	10
39	About the internal pressure in cavities derived from implantation-induced blistering in semi-conductors. Journal of Applied Physics, 2011, 110, .	2.5	9
40	Resistive-nanoindentation: contact area monitoring by real-time electrical contact resistance measurement. MRS Communications, 2019, 9, 1008-1014.	1.8	7
41	Determination of the Young's Modulus of a TiN Thin Film by Nanoindentation: Analytical Models and FEM Simulation. E-Journal of Surface Science and Nanotechnology, 2012, 10, 624-629.	0.4	6
42	Cu/SiO ₂ hybrid bonding: Finite element modeling and experimental characterization. , 2016, , .		6
43	Influence of interface steps on the buckle delamination of thin films. Journal of the Mechanics and Physics of Solids, 2019, 132, 103698.	4.8	6
44	An analytical model for DCB/wedge tests based on Timoshenko beam kinematics for accurate determination of cohesive zone lengths. International Journal of Fracture, 2020, 222, 137-153.	2.2	6
45	Resistive-nanoindentation on gold: Experiments and modeling of the electrical contact resistance. Review of Scientific Instruments, 2021, 92, 035102.	1.3	6
46	Pressure-induced transition from wavy circular to ring-shaped buckles. International Journal of Solids and Structures, 2021, 225, 111053.	2.7	6
47	Design of Architected Sandwich Core Materials using Topological Optimization Methods. Materials Research Society Symposia Proceedings, 2009, 1188, 9.	0.1	5
48	A Possible Mechanism for Protrusions Formation at the Metal/Oxide Interface During Short Time Oxidation of Ferritic Stainless Steel. Oxidation of Metals, 2013, 79, 65-72.	2.1	5
49	Initiation of geometric roughening in polycrystalline metal films. Comptes Rendus - Mecanique, 2008, 336, 224-231.	2.1	4
50	A mechanistic analysis of delamination of elastic coatings from the surface of plastically deformed stents. International Journal of Solids and Structures, 2021, 224, 111051.	2.7	4
51	Investigating the secondary buckling of thin films with a model based on elastic rods with hinges. Journal of Mechanics of Materials and Structures, 2009, 4, 121-138.	0.6	3
52	Mechanics of cracking failure in a silver layer deposited by inkjet printing on a flexible substrate. , 2016, , .		2
53	Development and Application of a Multifunctional Nanoindenter: Coupling to Electrical Measurements and Integration In-Situ in a Scanning Electron Microscope. , 2019, , .		2
54	Development of a multifunctional nanoindenter integrated in-situ Scanning Electron Microscope - application to the monitoring of piezoresponse and electro-mechanical failures. Thin Solid Films, 2021, 735, 138891.	1.8	2

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55	Relations Between Oxidation Induced Microstructure and Mechanical Durability of Oxide Scales. Oxidation of Metals, 2017, 88, 29-40.	2.1	1
56	Topological Optimization with Interfaces. Springer Series in Materials Science, 2019, , 173-193.	0.6	1
57	Failure of a brittle layer on a ductile substrate: Nanoindentation experiments and FEM simulations. Journal of the Mechanics and Physics of Solids, 2022, 163, 104859.	4.8	1
58	Post-flambage unilatéral des films minces sur substrat. European Journal of Computational Mechanics, 2007, 16, 941-955.	0.6	0
59	Mixed Mode Delamination of Stent Coatings During Deployment. , 2010, , .		0
60	Crystal Plasticity of Single Crystal and Film on Substrate Probed by Nano-indentation: Simulations and Experiments. Materials Research Society Symposia Proceedings, 2011, 1363, 1.	0.1	0
61	Numerical and experimental investigations on the hybrid bonding of Cu/SiO ₂ patterned surfaces using a cohesive model. , 2016, , .		0
62	The advantages of coupling experimental methods and analytical modelling to fix deformation problems in devices conception and manufacturing. , 2018, , .		0
63	Thermomechanical Characterization of Polymer Thin Films. Application for the Conception and the Manufacturing of a 3D Interposer. , 2019, , .		0
64	Effect of substrate elasticity on thin film buckle morphologies: A phase diagram. Surface and Coatings Technology, 2021, 408, 126817.	4.8	0
65	Shape optimization by the level-set method applied to architected flexural panels. , 2010, , .		0
66	Effet de confinement géométrique sur la déformation plastique cristalline : cas du film mince sur substrat. Materiaux Et Techniques, 2011, 99, 261-270.	0.9	0
67	DESIGN OF ISOTROPIC MICROSTRUCTURES VIA A TWO-SCALE APPROACH. , 2016, , .		0
68	Influence of the DCB/Wedge beam kinematics on the identification of the cohesive parameters of interfaces. International Journal of Solids and Structures, 2022, 252, 111810.	2.7	0