Corinne E Packard

List of Publications by Year
in descending order

57 papers	1,423 citations	430754 18 h-index	330025 37 g-index
57 all docs	57 docs citations	57 times ranked	1634 citing authors

#	Article	IF	Citations
1	Initiation of shear bands near a stress concentration in metallic glass. Acta Materialia, 2007, 55, 5348-5358.	3.8	230
2	Correlations between nanoindentation hardness and macroscopic mechanical properties in DP980 steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 431-439.	2.6	137
3	Nanoindentation and contact-mode imaging at high temperatures. Journal of Materials Research, 2006, 21, 725-736.	1.2	96
4	Effect of thermal maturity on elastic properties of kerogen. Geophysics, 2016, 81, M1-M6.	1.4	87
5	Hot nanoindentation in inert environments. Review of Scientific Instruments, 2010, 81, 073901.	0.6	83
6	Hardening of a metallic glass during cyclic loading in the elastic range. Applied Physics Letters, 2008, 92, .	1.5	80
7	Cyclic hardening of metallic glasses under Hertzian contacts: Experiments and STZ dynamics simulations. Philosophical Magazine, 2010, 90, 1373-1390.	0.7	71
8	Controlled exfoliation of (100) GaAs-based devices by spalling fracture. Applied Physics Letters, 2016, 108, .	1.5	60
9	Nanoscale strength distribution in amorphous versus crystalline metals. Journal of Materials Research, 2010, 25, 2251-2263.	1.2	58
10	Optimizing nano-dynamic mechanical analysis for high-resolution, elastic modulus mapping in organic-rich shales. Journal of Materials Science, 2015, 50, 1041-1049.	1.7	58
11	Evidence for Anisotropic Mechanical Behavior and Nanoscale Chemical Heterogeneity in Cycled LiCoO₂. Journal of the Electrochemical Society, 2014, 161, F3039-F3045.	1.3	40
12	Temperatureâ€dependency analysis and correction methods of <i>in situ</i> powerâ€loss estimation for crystalline silicon modules undergoing potentialâ€induced degradation stress testing. Progress in Photovoltaics: Research and Applications, 2015, 23, 1536-1549.	4.4	38
13	Controlled spalling-based mechanical substrate exfoliation for III-V solar cells: A review. Solar Energy Materials and Solar Cells, 2021, 225, 111018.	3.0	32
14	In situ measurements of surface tension-driven shape recovery in a metallic glass. Scripta Materialia, 2009, 60, 1145-1148.	2.6	29
15	Contactâ€Printed Microelectromechanical Systems. Advanced Materials, 2010, 22, 1840-1844.	11.1	29
16	An investigation of the changes in poly(methyl methacrylate) specimens after exposure to ultra-violet light, heat, and humidity. Solar Energy Materials and Solar Cells, 2013, 111, 165-180.	3.0	28
17	Development of GaInP Solar Cells Grown by Hydride Vapor Phase Epitaxy. IEEE Journal of Photovoltaics, 2017, 7, 1153-1158.	1.5	23
18	Characterization of Elastic Modulus Across the (Al_{1â€“<italic>x</italic>}Sc_{<italic>x</italic>})N System Using DFT and Substrate-Effect-Corrected Nanoindentation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 2167-2175.	1.7	22

#	Article	IF	Citations
19	Optimizing amorphous indium zinc oxide film growth for low residual stress and high electrical conductivity. Applied Surface Science, 2013, 283, 65-73.	3.1	18
20	Design of low surface roughness-low residual stress-high optoelectronic merit a-IZO thin films for flexible OLEDs. Journal of Applied Physics, 2016, 119, .	1.1	13
21	Tuning the physical properties of amorphous In-Zn-Sn-O thin films using combinatorial sputtering. MRS Communications, 2016, 6, 360-366.	0.8	13
22	Increased fracture depth range in controlled spalling of (100)-oriented germanium via electroplating. Thin Solid Films, 2018, 649, 154-159.	0.8	13
23	Tunable Bandgap GaInAsP Solar Cells With 18.7% Photoconversion Efficiency Synthesized by Low-Cost and High-Growth Rate Hydride Vapor Phase Epitaxy. IEEE Journal of Photovoltaics, 2018, 8, 1577-1583.	1.5	13
24	Determining Activation Volume for the Pressureâ€Induced Phase Transformation in Î²â€Eucryptite Through Nanoindentation. Journal of the American Ceramic Society, 2012, 95, 2051-2058.	1.9	12
25	In situ Raman spectroscopy of pressureâ€induced phase transformations in polycrystalline Tb<scp>PO</scp>₄, Dy<scp>PO</scp>₄, and Gd_xDy_(1â^'x)<scp>PO</scp>₄. Journal of the American Ceramic Society, 2018, 101, 2562-2570.	1.9	12
26	Discovering exceptionally hard and wear-resistant metallic glasses by combining machine-learning with high throughput experimentation. Applied Physics Reviews, 2022, 9, .	5.5	12
27	Highâ€Efficiency Solar Cells Grown on Spalled Germanium for Substrate Reuse without Polishing. Advanced Energy Materials, 2022, 12, .	10.2	12
28	Patterned Removal of Molecular Organic Films by Diffusion. Langmuir, 2011, 27, 9073-9076.	1.6	11
29	IIIâ€“V Solar Cells Grown on Unpolished and Reusable Spalled Ge Substrates. IEEE Journal of Photovoltaics, 2018, 8, 1384-1389.	1.5	11
30	Electrically tunable organic vertical-cavity surface-emitting laser. Applied Physics Letters, 2014, 105, 073303.	1.5	7
31	Mechanical behavior of rareâ€earth orthophosphates near the monazite/xenotime boundary characterized by nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 691, 203-210.	2.6	7
32	Engineering controlled spalling in (100)-oriented GaAs for wafer reuse. , 2015, , .		6
33	Reformed Mesoporous Ge for Substrate Reuse in III-V Solar Cells. , 2019, , .		5
34	Performance of IIIâ€“V Solar Cells Grown on Reformed Mesoporous Ge Templates. IEEE Journal of Photovoltaics, 2022, 12, 337-343.	1.5	5
35	A novel way to characterize Metal-Insulator-Metal devices via nanoindentation. , 2011, , .		4
36	Electromechanical tuning of nanoscale MIM diodes by nanoindentation. Journal of Materials Research, 2013, 28, 1912-1919.	1.2	4

#	Article	IF	Citations
37	GaAs Solar Cells Grown on Unpolished, Spalled Ge Substrates. , 2018, , .		4
38	Compositionally graded Ga1â^'xInxP buffers grown by static and dynamic hydride vapor phase epitaxy at rates up to 1 Î¼m/min. Applied Physics Letters, 2021, 118, .	1.5	4
39	Inverted metamorphic GaInAs solar cell grown by dynamic hydride vapor phase epitaxy. Applied Physics Letters, 2021, 119, .	1.5	4
40	Controlled spalling of (100)-oriented GaAs with a nanoimprint lithography interlayer for thin-film layer transfer without facet formation. Thin Solid Films, 2022, 742, 139049.	0.8	4
41	Micro-contact printed MEMS. , 2011, , .		3
42	Nanoethics and Policy Education: a Case Study of Social Science Coursework and Student Engagement with Emerging Technologies. NanoEthics, 2014, 8, 217-225.	0.5	3
43	Effect of hydride vapor phase epitaxy growth conditions on the degree of atomic ordering in GaInP. Journal of Applied Physics, 2020, 128, .	1.1	3
44	In situ synchrotron diffraction of pressure-induced phase transition in DyPO4 under variable hydrostaticity. Physical Review B, 2021, 103, .	1.1	3
45	Control of Surface Morphology during the Growth of (110)-Oriented GaAs by Hydride Vapor Phase Epitaxy. Crystal Growth and Design, 2021, 21, 3916-3921.	1.4	3
46	Subtractive contact-patterning of molecular organic films. Organic Electronics, 2012, 13, 1779-1784.	1.4	2
47	In situ Diamond Anvil Cellâ€“Raman Spectroscopy and Nanoindentation Study of the Pressureâ€Induced Phase Transformation in Pure and Zincâ€Doped Î²â€Eucryptite. Journal of the American Ceramic Society, 2013, 96, 1909-1915.	1.9	2
48	(110)-Oriented GaAs Devices and Spalling as a Platform for Low-Cost III-V Photovoltaics. , 2021, , .		2
49	Nanotechnology Ethics and Policy Education: Learning and Sharing Across Boundaries. Journal of Nano Education (Print), 2013, 5, 180-187.	0.3	2
50	(110)-Oriented GaAs Devices and Spalling as a Platform for Low-Cost III-V Photovoltaics. IEEE Journal of Photovoltaics, 2022, 12, 962-967.	1.5	2
51	Effect of material choice on spalling fracture parameters to exfoliate thin PV devices. , 2014, , .		1
52	Indentation recovery in GdPO4 and observation of deformation twinning. AIP Advances, 2016, 6, .	0.6	1
53	Impacts of Mode Mixity on Controlled Spalling of (100)-Oriented Germanium. Jom, 2021, 73, 1607-1616.	0.9	1
54	Microscopy of Chemical and Mechanical Heterogeneities in Lithium Cobalt Oxide. Microscopy and Microanalysis, 2015, 21, 523-524.	0.2	0

#	Article	IF	Citations
55	Fabrication of Thin III-V Solar Cells on Ni Films using Electroless Ni Deposition. , 2019, , .		0
56	Facet Suppression in (100) GaAs spalling via use of a Nanoimprint Lithography Release Layer. , 2021, , .		0
57	Effect of Doping Density on the Performance of Metamorphic GaInAs Solar Cells Grown by Dynamic Hydride Vapor Phase Epitaxy. , 2021, , .		0