Yonatan Calahorra

List of Publications by Year
in descending order

34 papers	636 citations	567281 15 h-index	610901 24 g-index
34 all docs	34 docs citations	34 times ranked	1050 citing authors

#	Article	IF	Citations
1	Youngâ€™s Modulus, Residual Stress, and Crystal Orientation of Doubly Clamped Silicon Nanowire Beams. Nano Letters, 2015, 15, 2945-2950.	9.1	97
2	Direct observation of shear piezoelectricity in poly-<scp>l</scp>-lactic acid nanowires. APL Materials, 2017, 5, .	5.1	44
3	Self-assembly of collagen bundles and enhanced piezoelectricity induced by chemical crosslinking. Nanoscale, 2019, 11, 15120-15130.	5.6	33
4	InP Nanoflag Growth from a Nanowire Template by in Situ Catalyst Manipulation. Nano Letters, 2016, 16, 2837-2844.	9.1	32
5	Observation of Confinementâ€Induced Selfâ€Poling Effects in Ferroelectric Polymer Nanowires Grown by Template Wetting. Macromolecular Materials and Engineering, 2016, 301, 1016-1025.	3.6	32
6	Shadowing and mask opening effects during selective-area vaporâ€“liquidâ€“solid growth of InP nanowires by metalorganic molecular beam epitaxy. Nanotechnology, 2013, 24, 475302.	2.6	30
7	Control of morphology and crystal purity of InP nanowires by variation of phosphine flux during selective area MOMBE. Nanotechnology, 2015, 26, 085303.	2.6	29
8	Formation mechanism of gold-based and gold-free ohmic contacts to AlGaN/GaN heterostructure field effect transistors. Journal of Applied Physics, 2017, 121, .	2.5	28
9	Poly-<scp>l</scp>-Lactic Acid Nanotubes as Soft Piezoelectric Interfaces for Biology: Controlling Cell Attachment via Polymer Crystallinity. ACS Applied Bio Materials, 2020, 3, 2140-2149.	4.6	27
10	Mapping piezoelectric response in nanomaterials using a dedicated non-destructive scanning probe technique. Nanoscale, 2017, 9, 19290-19297.	5.6	23
11	Nanoscale electromechanical properties of template-assisted hierarchical self-assembled cellulose nanofibers. Nanoscale, 2018, 10, 16812-16821.	5.6	21
12	The effect of crystal structure on the electromechanical properties of piezoelectric Nylon-11 nanowires. Chemical Communications, 2018, 54, 6863-6866.	4.1	20
13	Leadâ€Free Polycrystalline Ferroelectric Nanowires with Enhanced Curie Temperature. Advanced Functional Materials, 2017, 27, 1701169.	14.9	19
14	Exploring piezoelectric properties of IIIâ€“V nanowires using piezo-response force microscopy. Semiconductor Science and Technology, 2017, 32, 074006.	2.0	18
15	Localized electromechanical interactions in ferroelectric P(VDF-TrFE) nanowires investigated by scanning probe microscopy. APL Materials, 2016, 4, .	5.1	17
16	On the diameter dependence of metal-nanowire Schottky barrier height. Journal of Applied Physics, 2015, 117, 034308.	2.5	16
17	Highly sensitive piezotronic pressure sensors based on undoped GaAs nanowire ensembles. Journal Physics D: Applied Physics, 2019, 52, 294002.	2.8	15
18	Tapering and crystal structure of indium phosphide nanowires grown by selective area vapor liquid solid epitaxy. Journal of Crystal Growth, 2014, 389, 103-107.	1.5	14

#	Article	IF	Citations
19	Surface depletion effects in semiconducting nanowires having a non-uniform radial doping profile. Journal of Applied Physics, 2013, 114, 124310.	2.5	13
20	Three-point bending analysis of doubly clamped silicon nanowire beams; Young's modulus, initial stress, and crystal orientation. Journal of Applied Physics, 2015, 117, 164311.	2.5	13
21	Time-resolved open-circuit conductive atomic force microscopy for direct electromechanical characterisation. Nanotechnology, 2020, 31, 404003.	2.6	11
22	Native-oxide-based selective area growth of InP nanowires via metalâ€“organic molecular beam epitaxy mediated by surface diffusion. Nanotechnology, 2012, 23, 245603.	2.6	10
23	Catalyst shape engineering for anisotropic cross-sectioned nanowire growth. Scientific Reports, 2017, 7, 40891.	3.3	10
24	Piezoelectricity in non-nitride IIIâ€“V nanowires: Challenges and opportunities. Journal of Materials Research, 2018, 33, 611-624.	2.6	10
25	Coaxial Nickelâ€“Poly(vinylidene fluoride trifluoroethylene) Nanowires for Magnetoelectric Applications. ACS Applied Nano Materials, 2019, 2, 170-179.	5.0	10
26	Enhanced piezoelectricity and electromechanical efficiency in semiconducting GaN due to nanoscale porosity. Applied Materials Today, 2020, 21, 100858.	4.3	10
27	Role of Transport During Transient Phenomena in AlGaN/GaN Heterostructure FETs. IEEE Electron Device Letters, 2015, 36, 1124-1127.	3.9	8
28	Strain-Mediated Bending of InP Nanowires through the Growth of an Asymmetric InAs Shell. Nanomaterials, 2019, 9, 1327.	4.1	8
29	Rigorous analysis of image force barrier lowering in bounded geometries: application to semiconducting nanowires. Nanotechnology, 2014, 25, 145203.	2.6	6
30	Piezoelectric Semiconducting Nanowires. Semiconductors and Semimetals, 2018, , 445-478.	0.7	6
31	Reduction of nanowire diameter beyond lithography limits by controlled catalyst dewetting. Journal Physics D: Applied Physics, 2016, 49, 165309.	2.8	3
32	Catalyst design for native oxide based selective area InP nanowire growth. , 2012, , .		1
33	Piezoelectric III-V and II-VI Semiconductors. , 2022, , 35-49.		1
34	Preface for the special issue on Microscopy of Semiconducting Materials 2019. Semiconductor Science and Technology, 2020, 35, 120201.	2.0	1