

Frederic Houze

List of Publications by Year in descending order

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60
papers

1,057
citations

430874

18
h-index

454955

30
g-index

60
all docs

60
docs citations

60
times ranked

1203
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging the local electrical properties of metal surfaces by atomic force microscopy with conducting probes. Applied Physics Letters, 1996, 69, 1975-1977.	3.3	176
2	The influence of surface roughness on the capacitance between a sphere and a plane. Journal Physics D: Applied Physics, 1994, 27, 1504-1508.	2.8	52
3	Piezo-generator integrating a vertical array of GaN nanowires. Nanotechnology, 2016, 27, 325403.	2.6	50
4	Electronic and topographic properties of amorphous and microcrystalline silicon thin films. Thin Solid Films, 2001, 383, 57-60.	1.8	47
5	From single III-nitride nanowires to piezoelectric generators: New route for powering nomad electronics. Semiconductor Science and Technology, 2016, 31, 103002.	2.0	45
6	Mesostructure of polymer/carbon black composites observed by conductive probe atomic force microscopy. Carbon, 2001, 39, 314-318.	10.3	40
7	Conducting probe atomic force microscopy applied to organic conducting blends. Applied Physics Letters, 2001, 79, 2993-2995.	3.3	40
8	Field emission and material transfer in microswitches electrical contacts. Applied Physics Letters, 2010, 97, .	3.3	37
9	Conductive-probe AFM characterization of graphene sheets bonded to gold surfaces. Applied Surface Science, 2012, 258, 2920-2926.	6.1	35
10	Self-assembled monolayers of alkanethiols on nickel surfaces for low level electrical contact applications. IEEE Transactions on Components and Packaging Technologies, 1999, 22, 79-84.	1.3	33
11	Study of the local electrical properties of metal surfaces using an AFM with a conducting probe. IEEE Transactions on Components and Packaging Technologies, 1998, 21, 76-81.	0.7	30
12	Energy harvesting efficiency in GaN nanowire-based nanogenerators: the critical influence of the Schottky nanocontact. Nanoscale, 2017, 9, 4610-4619.	5.6	29
13	Title is missing!. Journal of Materials Science, 2001, 36, 3355-3363.	3.7	28
14	Surface modifications of nickel substrates with self-assembled monolayers of alkanethiols for electrical contact applications. Surface and Coatings Technology, 1998, 100-101, 463-468.	4.8	27
15	Metal-rich Au-silicide nanoparticles for use in nanotechnology. Applied Physics Letters, 2009, 94, .	3.3	27
16	Electrical and mechanical contact between rough gold surfaces in air. Journal of Physics Condensed Matter, 1991, 3, 5195-5201.	1.8	26
17	GaN nanowires for piezoelectric generators. Physica Status Solidi - Rapid Research Letters, 2014, 8, 414-419.	2.4	23
18	Impact of the GaN nanowire polarity on energy harvesting. Applied Physics Letters, 2014, 104, .	3.3	20

#	ARTICLE	IF	CITATIONS
19	Electrical properties of very thin heat-treated polyacrylonitrile layers electropolymerized on nickel for contact application. <i>Synthetic Metals</i> , 1994, 62, 207-216.	3.9	18
20	Conducting Probe-Mediated Electrochemical Nanopatterning of Molecular Materials. <i>Journal of the American Chemical Society</i> , 2001, 123, 11486-11487.	13.7	17
21	Capacitance measurements on small parallel plate capacitors using nanoscale impedance microscopy. <i>Applied Physics Letters</i> , 2007, 90, 043116.	3.3	15
22	High Piezoelectric Conversion Properties of Axial InGaN/GaN Nanowires. <i>Nanomaterials</i> , 2018, 8, 367.	4.1	14
23	Electrical characterization of Schottky diodes based on boron doped homoepitaxial diamond films by conducting probe atomic force microscopy. <i>Superlattices and Microstructures</i> , 2006, 40, 343-349.	3.1	13
24	Determination of the effective contact radius between a conducting sphere and a thin metallic film. <i>Journal Physics D: Applied Physics</i> , 1988, 21, 495-502.	2.8	12
25	Constriction resistance of a multispot contact: an improved analytical expression. <i>IEEE Transactions on Components, Hybrids and Manufacturing Technology</i> , 1991, 14, 134-136.	0.4	12
26	Atomic force microscopy study of the topographic evolution of polyacrylonitrile thin films submitted to a rapid thermal treatment. <i>Thin Solid Films</i> , 1997, 303, 200-206.	1.8	12
27	Specific methodology for capacitance imaging by atomic force microscopy: A breakthrough towards an elimination of parasitic effects. <i>Applied Physics Letters</i> , 2014, 104, 083108.	3.3	11
28	MgO substrate surface optimization for YBaCuO thin film growth. <i>IEEE Transactions on Applied Superconductivity</i> , 2003, 13, 2721-2724.	1.7	10
29	Fabrication of high-Tc superconducting hot electron bolometers for terahertz mixer applications. , 2005, , .		10
30	Simultaneous resistance and capacitance cartography by conducting probe atomic force microscopy in contact mode. <i>Applied Physics Letters</i> , 2005, 86, 123103.	3.3	10
31	Local photoconductivity on diamond metal-semiconductor-metal photodetectors measured by conducting probe atomic force microscopy. <i>Diamond and Related Materials</i> , 2007, 16, 1074-1077.	3.9	10
32	Electrical and physical modeling of contact defects due to fretting. <i>IEEE Transactions on Components and Packaging Technologies</i> , 1994, 17, 134-140.	0.7	9
33	Evaluation of the nanotube intrinsic resistance across the tip-carbon nanotube-metal substrate junction by Atomic Force Microscopy. <i>Nanoscale Research Letters</i> , 2011, 6, 335.	5.7	9
34	Tribological and electrical study of fluorinated diazonium films as dry lubricants for electrical contacts. <i>Surface and Interface Analysis</i> , 2008, 40, 802-805.	1.8	8
35	Tribological behaviour of heat-treated thin films of electropolymerized polyacrylonitrile. <i>Surface and Interface Analysis</i> , 1994, 22, 393-397.	1.8	7
36	Adhesion properties and surface analyses of monolayers ofn-dodecanethiol self-assembled on galvanic gold. <i>Surface and Interface Analysis</i> , 1998, 26, 889-895.	1.8	7

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37	Elaboration of heat-treated thin films of polyacrylonitrile for connector application. IEEE Transactions on Components and Packaging Technologies, 1995, 18, 364-368.	0.7	6
38	Experimental and theoretical study of creep effects in electrical contacts. , 0, , .		6
39	Atomic force microscopy with a conducting tip: correlation studies between microstructure and electrical properties of YBaCuO thin films. Physica C: Superconductivity and Its Applications, 2000, 341-348, 1965-1968.	1.2	6
40	Nanocomposite thin films for surface protection in electrical contact applications. , 2007, , .		6
41	Influence of morphology on the conductance of single-crystal diamond surfaces measured by atomic force microscopy. Journal of Applied Physics, 2009, 106, 054301.	2.5	6
42	Self-assembled monolayers of alkanethiols on nickel surfaces for low level electrical contact applications. , 0, , .		5
43	Influence of temperature and pressure on the static contact resistance of vacuum heat-treated polyacrylonitrile films. Synthetic Metals, 2001, 118, 121-132.	3.9	5
44	Influence of microstructure on electrical and microwave properties of YBaCuO thin films. Physica C: Superconductivity and Its Applications, 2002, 372-376, 578-581.	1.2	5
45	Local electrical characterization of Schottky diodes on H-terminated diamond surfaces by conducting probe atomic force microscopy. Diamond and Related Materials, 2006, 15, 618-621.	3.9	5
46	Multi-scale investigation of electronic transport and electromechanical behavior in carbon nanotube materials. Composites Part B: Engineering, 2011, 42, 2098-2104.	12.0	5
47	Bulk and surface structural properties of Si _{1-x} Ge _x layers processed on Si(001) by pulsed laser induced epitaxy. Applied Surface Science, 1996, 102, 28-32.	6.1	4
48	Copper sample analyzed with an n-doped silicon tip using conducting probe atomic force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1929.	1.6	4
49	Nanocomposite Thin Films for Surface Protection in Electrical Contact Applications. IEEE Transactions on Components and Packaging Technologies, 2009, 32, 358-364.	1.3	4
50	Three-level multi-scale modeling of electrical contacts sensitivity study and experimental validation. , 2015, , .		4
51	A quantitative approach to the effects of surface topography on tunnelling current between two large rough metal bodies. Journal of Physics Condensed Matter, 1991, 3, 4655-4675.	1.8	3
52	An Original Apparatus for Endurance Testing of MEMS Electrical Contact Materials. , 2009, , .		3
53	Electromechanical conversion efficiency of GaN NWs: critical influence of the NW stiffness, the Schottky nano-contact and the surface charge effects. Nanoscale, 2022, 14, 4965-4976.	5.6	3
54	First observations of YBaCuO thin films by atomic force microscopy with conducting tips. , 1998, 3481, 265.		2

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55	Apparent tunnel barrier heights of Pt/Au interfaces in relation to the Au surface composition. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 2006.	1.6	2
56	Wide range local resistance imaging on fragile materials by conducting probe atomic force microscopy in intermittent contact mode. Applied Physics Letters, 2016, 108, 243101.	3.3	2
57	Correlation between structural and transport properties of silicon thin films deposited at various substrate temperatures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1048.	1.6	1
58	Nitride Nanowires: From Rigid to Flexible Piezo-generators. Journal of Physics: Conference Series, 2016, 773, 012010.	0.4	1
59	Conducting Probe Atomic Force Microscope as a Relevant Tool for Studying Some Phenomena in MEMS Switches. Sensing and Imaging, 2015, 16, 1.	1.5	0
60	Caractérisation chimique, topographique, tribologique et électrique de films de polyacrylonitrile post-traités en vue d'applications en connectique. Journal De Physique III, 1995, 5, 661-675.	0.3	0