

Lars Montelius

List of Publications by Year in descending order

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130
papers

5,018
citations

94433

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133
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docs citations

133
times ranked

4911
citing authors

#	ARTICLE	IF	CITATIONS
1	Adsorption of 3-(triethoxysilyl)propionitrile on a rutile TiO ₂ (110) surface: An x-ray photoelectron spectroscopy study. AIP Conference Proceedings, 2020, , .	0.4	0
2	Covalent immobilization of molecularly imprinted polymer nanoparticles on a gold surface using carbodiimide coupling for chemical sensing. Journal of Colloid and Interface Science, 2016, 461, 1-8.	9.4	70
3	Concept for assembling individual nanostructure-based components into complex devices. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2015, 33, .	1.2	1
4	Scalable, high performance, enzymatic cathodes based on nanoimprint lithography. Beilstein Journal of Nanotechnology, 2015, 6, 1377-1384.	2.8	7
5	Covalent immobilization of molecularly imprinted polymer nanoparticles using an epoxy silane. Journal of Colloid and Interface Science, 2015, 445, 277-284.	9.4	50
6	Transparent and flexible, nanostructured and mediatorless glucose/oxygen enzymatic fuel cells. Journal of Power Sources, 2015, 294, 501-506.	7.8	36
7	Implementation of Molecularly Imprinted Polymer Beads for Surface Enhanced Raman Detection. Analytical Chemistry, 2015, 87, 5056-5061.	6.5	67
8	Photoconjugation of Molecularly Imprinted Polymer Nanoparticles for Surface-Enhanced Raman Detection of Propranolol. ACS Applied Materials & Interfaces, 2015, 7, 27479-27485.	8.0	28
9	The influence of nanoparticles on enzymatic bioelectrocatalysis. RSC Advances, 2014, 4, 38164-38168.	3.6	35
10	Controlled short-linkage assembly of functional nano-objects. Applied Surface Science, 2014, 300, 22-28.	6.1	18
11	Nanowire-Based Electrode for Acute In Vivo Neural Recordings in the Brain. PLoS ONE, 2013, 8, e56673.	2.5	73
12	Self-Organization of Motor-Propelled Cytoskeletal Filaments at Topographically Defined Borders. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-10.	3.0	14
13	Nano-enabled technologies - with a special focus on nanowires for life science applications. , 2012, , .		0
14	Efficient methods of nanoimprint stamp cleaning based on imprint self-cleaning effect. Nanotechnology, 2011, 22, 185301.	2.6	6
15	Fabrication and characterization of bilayer metal wire-grid polarizer using nanoimprint lithography on flexible plastic substrate. Microelectronic Engineering, 2011, 88, 3108-3112.	2.4	38
16	Molecularly selective nanopatterns using nanoimprint lithography: A label-free sensor architecture. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2011, 29, 011021.	1.2	10
17	Surface-enhanced Raman scattering on dual-layer metallic grating structures. Science Bulletin, 2010, 55, 2643-2648.	1.7	9
18	Electromechanical Behavior of Interdigitated SiO ₂ Cantilever Arrays. Chinese Physics Letters, 2010, 27, 028503.	3.3	1

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19	Electrochemical Investigation of Nickel Pattern Electrodes in H ₂ /H ₂ O and CO/CO ₂ Atmospheres. Journal of the Electrochemical Society, 2010, 157, B1588.	2.9	16
20	Nano-Schottky contacts realized by bottom-up technique. , 2010, , .		0
21	Comparative friction measurements of InAs nanowires on three substrates. Journal of Applied Physics, 2010, 108, 094307.	2.5	12
22	Bias-controlled friction of InAs nanowires on a silicon nitride layer studied by atomic force microscopy. Physical Review B, 2010, 82, .	3.2	16
23	Fifteen-Piconewton Force Detection from Neural Growth Cones Using Nanowire Arrays. Nano Letters, 2010, 10, 782-787.	9.1	109
24	Molecularly imprinted nanostructures by nanoimprint lithography. Analyst, The, 2010, 135, 1219.	3.5	17
25	Nanofluidics in hollow nanowires. Nanotechnology, 2010, 21, 155301.	2.6	20
26	Friction Measurements of InAs Nanowires on Silicon Nitride by AFM Manipulation. Small, 2009, 5, 203-207.	10.0	46
27	Gallium phosphide nanowire arrays and their possible application in cellular force investigations. Journal of Vacuum Science & Technology B, 2009, 27, 3092-3094.	1.3	34
28	Low temperature Ga surface diffusion from focused ion beam milled grooves. Nanotechnology, 2009, 20, 325304.	2.6	14
29	Attovolt-based antibody nanoarrays. Proteomics, 2009, 9, 5406-5413.	2.2	11
30	Negative UV-NIL (NUV-NIL) – A mix-and-match NIL and UV strategy for realisation of nano- and micrometre structures. Microelectronic Engineering, 2009, 86, 654-656.	2.4	13
31	Rectifying and Sorting of Regenerating Axons by Free-Standing Nanowire Patterns: A Highway for Nerve Fibers. Langmuir, 2009, 25, 4343-4346.	3.5	45
32	Nanowire Biocompatibility in the Brain - Looking for a Needle in a 3D Stack. Nano Letters, 2009, 9, 4184-4190.	9.1	45
33	A new multifunctional platform based on high aspect ratio interdigitated NEMS structures. Nanotechnology, 2009, 20, 175502.	2.6	10
34	Nanoimprint in PDMS on glass with two-level hybrid stamp. Microelectronic Engineering, 2008, 85, 210-213.	2.4	13
35	Characterisation of nano-interdigitated electrodes. Journal of Physics: Conference Series, 2008, 100, 052045.	0.4	16
36	Diffusion Dynamics of Motor-Driven Transport: Gradient Production and Self-Organization of Surfaces. Langmuir, 2008, 24, 13509-13517.	3.5	26

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37	AFM-based manipulation of InAs nanowires. Journal of Physics: Conference Series, 2008, 100, 052051.	0.4	6
38	Nanomodified surfaces and guidance of nerve cell processes. Journal of Vacuum Science & Technology B, 2008, 26, 2558-2561.	1.3	6
39	Axonal guidance on patterned free-standing nanowire surfaces. Nanotechnology, 2008, 19, 345101.	2.6	81
40	Benchmarking of 50nm features in thermal nanoimprint. Journal of Vacuum Science & Technology B, 2007, 25, 2373.	1.3	10
41	Understanding mechanical properties of nanostructures using Euler's theory. Nanotechnology, 2007, 18, 255502.	2.6	3
42	EBL/NIL fabrication and characterization of interdigitated electrodes for potential application in combinatorial studies.. Materials Research Society Symposia Proceedings, 2007, 1024, 1.	0.1	2
43	Gallium Phosphide Nanowires as a Substrate for Cultured Neurons. Nano Letters, 2007, 7, 2960-2965.	9.1	182
44	Shear Stress Measurements on InAs Nanowires by AFM Manipulation. Small, 2007, 3, 1398-1401.	10.0	58
45	Design of atto-vial based recombinant antibody arrays combined with a planar wave-guide detection system. Proteomics, 2007, 7, 540-547.	2.2	29
46	Actin Filament Guidance on a Chip: Toward High-Throughput Assays and Lab-on-a-Chip Applications. Langmuir, 2006, 22, 7286-7295.	3.5	75
47	Selective Spatial Localization of Actomyosin Motor Function by Chemical Surface Patterning. Langmuir, 2006, 22, 7302-7312.	3.5	54
48	Magnetostatic interactions in planar ring-like nanoparticle structures. Thin Solid Films, 2006, 515, 731-734.	1.8	10
49	Axonal outgrowth on nano-imprinted patterns. Biomaterials, 2006, 27, 1251-1258.	11.4	276
50	Multi-frequency response from a designed array of micromechanical cantilevers fabricated using a focused ion beam. Nanotechnology, 2006, 17, 5233-5237.	2.6	8
51	Parallel Nano-Assembly Directed by Short-Range Field Forces. , 2006, , .		0
52	Nanoimprint lithography for the fabrication of interdigitated cantilever arrays. Nanotechnology, 2006, 17, 1906-1910.	2.6	20
53	Classification of motor commands using a modified self-organising feature map. Medical Engineering and Physics, 2005, 27, 403-413.	1.7	30
54	Guiding Molecular Motors with Nano-Imprinted Structures. Japanese Journal of Applied Physics, 2005, 44, 3337-3340.	1.5	21

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55	Phospholipid vesicle adsorption measured in situ with resonating cantilevers in a liquid cell. Nanotechnology, 2005, 16, 1512-1516.	2.6	12
56	Resonators with integrated CMOS circuitry for mass sensing applications, fabricated by electron beam lithography. Nanotechnology, 2005, 16, 98-102.	2.6	39
57	Development and characterization of silane antisticking layers on nickel-based stamps designed for nanoimprint lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 575.	1.6	19
58	Actin-Based Molecular Motors for Cargo Transportation in Nanotechnology – Potentials and Challenges. IEEE Transactions on Advanced Packaging, 2005, 28, 547-555.	1.6	47
59	Ultrasensitive mass sensor fully integrated with complementary metal-oxide-semiconductor circuitry. Applied Physics Letters, 2005, 87, 043507.	3.3	105
60	Guiding motor-propelled molecules with nanoscale precision through silanized bi-channel structures. Nanotechnology, 2005, 16, 710-717.	2.6	63
61	Process development and characterization of antisticking layers on nickel-based stamps designed for nanoimprint lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 3283.	1.6	20
62	Size effect on Young's modulus of thin chromium cantilevers. Applied Physics Letters, 2004, 85, 3555-3557.	3.3	122
63	Lithography of high spatial density biosensor structures with sub-100 nm spacing by MeV proton beam writing with minimal proximity effect. Nanotechnology, 2004, 15, 223-226.	2.6	42
64	Nanowire Arrays Defined by Nanoimprint Lithography. Nano Letters, 2004, 4, 699-702.	9.1	383
65	Fabrication of cantilever based mass sensors integrated with CMOS using direct write laser lithography on resist. Nanotechnology, 2004, 15, S628-S633.	2.6	27
66	In vitro sliding of actin filaments labelled with single quantum dots. Biochemical and Biophysical Research Communications, 2004, 314, 529-534.	2.1	137
67	Dry release of suspended nanostructures. Microelectronic Engineering, 2004, 73-74, 487-490.	2.4	5
68	Nanoelectrochemical transducers for (bio-) chemical sensor applications fabricated by nanoimprint lithography. Microelectronic Engineering, 2004, 73-74, 837-842.	2.4	6
69	Laser lithography on resist bi-layer for nanoelectromechanical systems prototyping. Microelectronic Engineering, 2004, 73-74, 491-495.	2.4	1
70	Silanized surfaces for in vitro studies of actomyosin function and nanotechnology applications. Analytical Biochemistry, 2003, 323, 127-138.	2.4	79
71	Nanoimprint technology for fabrication of three-terminal ballistic junction devices in GaInAs/InP. Microelectronic Engineering, 2003, 67-68, 196-202.	2.4	1
72	Lift-off process for nanoimprint lithography. Microelectronic Engineering, 2003, 67-68, 203-207.	2.4	45

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73	Nanoimprint-induced effects on electrical and optical properties of quantum well structures. Microelectronic Engineering, 2003, 67-68, 214-220.	2.4	5
74	A comparison of thermally and photochemically cross-linked polymers for nanoimprinting. Microelectronic Engineering, 2003, 67-68, 266-273.	2.4	31
75	Fluorescence microscopy for quality control in nanoimprint lithography. Microelectronic Engineering, 2003, 67-68, 623-628.	2.4	12
76	Fabrication and characterization of a molecular adhesive layer for micro- and nanofabricated electrochemical electrodes. Microelectronic Engineering, 2003, 67-68, 887-892.	2.4	15
77	Towards a "nano-traffic"™ system powered by molecular motors. Microelectronic Engineering, 2003, 67-68, 899-904.	2.4	22
78	Actomyosin motility on nanostructured surfaces. Biochemical and Biophysical Research Communications, 2003, 301, 783-788.	2.1	73
79	Fabrication and mechanical characterization of ultrashort nanocantilevers. Applied Physics Letters, 2003, 83, 990-992.	3.3	39
80	Nano-aperture fabrication for single quantum dot spectroscopy. Nanotechnology, 2003, 14, 675-679.	2.6	18
81	Reactive polymers: a route to nanoimprint lithography at low temperatures. , 2003, 5037, 203.		2
82	Wafer Scale Nanoimprint Lithography. Nanostructure Science and Technology, 2003, , 77-101.	0.1	2
83	Single InP/GaInP quantum dots studied by scanning tunneling microscopy and scanning tunneling microscopy induced luminescence. Applied Physics Letters, 2002, 80, 494-496.	3.3	20
84	Ultrahigh vacuum scanning probe investigations of metal induced void formation in SiO ₂ /Si(111). Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 226.	1.6	2
85	Epitaxially overgrown, stable W ⁺ GaAs Schottky contacts with sizes down to 50 nm. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 580.	1.6	9
86	Investigation of polymethylmethacrylate resist residues using photoelectron microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1139.	1.6	6
87	Nanoimprint lithography for fabrication of three-terminal ballistic junctions in InP/GaInAs. Nanotechnology, 2002, 13, 666-668.	2.6	12
88	Nanoimprinted passive optical devices. Nanotechnology, 2002, 13, 581-586.	2.6	54
89	<title>Metal nanoelectrodes for molecular transistor and investigation of electron transport in molecular systems</title>. , 2002, 5023, 327.		0
90	Improving stamps for 10 nm level wafer scale nanoimprint lithography. Microelectronic Engineering, 2002, 61-62, 441-448.	2.4	250

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91	Fabrication of Si-based nanoimprint stamps with sub-20 nm features. Microelectronic Engineering, 2002, 61-62, 449-454.	2.4	49
92	Polymer stamps for nanoimprinting. Microelectronic Engineering, 2002, 61-62, 393-398.	2.4	38
93	Piezoresonance driver for positioning scanning probe microscopes in a wide temperature range. Ferroelectrics, 2001, 258, 47-52.	0.6	2
94	Scanning probe microscopy characterisation of masked low energy implanted nanometer structures. Nuclear Instruments & Methods in Physics Research B, 2001, 173, 447-454.	1.4	5
95	<title>Large-area nanoimprint fabrication of sub-100-nm interdigitated metal arrays</title>. , 2000, , .		11
96	Metal silicides as a novel electrode material in electrochemical sensors. Sensors and Actuators B: Chemical, 2000, 70, 83-86.	7.8	4
97	Nanoimprint- and UV-lithography: Mix&Match process for fabrication of interdigitated nanobiosensors. Microelectronic Engineering, 2000, 53, 521-524.	2.4	61
98	Nanoimprint lithography at the 6 in. wafer scale. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 3557.	1.6	117
99	Mechanical tuning of tunnel gaps for the assembly of single-electron transistors. Applied Physics Letters, 1999, 75, 1461-1463.	3.3	23
100	Single-electron devices via controlled assembly of designed nanoparticles. Microelectronic Engineering, 1999, 47, 179-183.	2.4	30
101	Perforated silicon nerve chips with doped registration electrodes: in vitro performance and in vivo operation. IEEE Transactions on Biomedical Engineering, 1999, 46, 1065-1073.	4.2	28
102	High-fluence Co implantation in Si, SiO ₂ /Si and Si ₃ N ₄ /Si. Nuclear Instruments & Methods in Physics Research B, 1999, 159, 133-141.	1.4	9
103	High-fluence Co implantation in Si, SiO ₂ /Si and Si ₃ N ₄ /Si. Nuclear Instruments & Methods in Physics Research B, 1999, 159, 158-165.	1.4	7
104	High-fluence Co implantation in Si, SiO ₂ /Si and Si ₃ N ₄ /Si. Nuclear Instruments & Methods in Physics Research B, 1999, 159, 142-157.	1.4	11
105	Large scale nanolithography using nanoimprint lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 2961.	1.6	70
106	Assembly and analysis of quantum devices using SPM based methods. Microelectronics Reliability, 1998, 38, 943-950.	1.7	3
107	Quantitation of Bacterial Adhesion to Polymer Surfaces by Bioluminescence. Zentralblatt Fur Bakteriologie: International Journal of Medical Microbiology, 1998, 287, 7-18.	0.5	13
108	Fabrication of quantum devices by Å...ngstrÅm-level manipulation of nanoparticles with an atomic force microscope. Applied Physics Letters, 1998, 72, 548-550.	3.3	93

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109	Local probe techniques for luminescence studies of low-dimensional semiconductor structures. Journal of Applied Physics, 1998, 84, 1715-1775.	2.5	154
110	Coulomb effects on charged, buried metal disks at room temperature. Applied Physics Letters, 1998, 72, 2610-2612.	3.3	4
111	Protein depositions on one hydrocephalus shunt and on fifteen temporary ventricular catheters. Acta Neurochirurgica, 1997, 139, 734-742.	1.7	11
112	Rat sciatic nerve regeneration through a micromachined silicon chip. Biomaterials, 1997, 18, 75-80.	11.4	67
113	STM-based luminescence spectroscopy on single quantum dots. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 42, 82-87.	3.5	6
114	Stark effect in individual luminescent centers observed by tunneling luminescence. Applied Physics Letters, 1996, 68, 60-62.	3.3	33
115	Fabrication and characterization of a nanosensor for admittance spectroscopy of biomolecules. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 1755-1760.	2.1	35
116	Nano-Optical Studies of Individual Nanostructures. Japanese Journal of Applied Physics, 1995, 34, 4392-4397.	1.5	22
117	Image widening not only a question of tip sample convolution. Applied Physics Letters, 1995, 66, 1068-1070.	3.3	20
118	Adhesion of coagulase-negative staphylococci and adsorption of plasma proteins to heparinized polymer surfaces. Biomaterials, 1994, 15, 805-814.	11.4	41
119	Luminescence Spectroscopy on Individual Nanostructures and Impurity Atoms Using Stm and Sem. Materials Research Society Symposia Proceedings, 1994, 375, 157.	0.1	0
120	Direct observation of the tip shape in scanning probe microscopy. Applied Physics Letters, 1993, 62, 2628-2630.	3.3	80
121	Low-temperature luminescence due to minority carrier injection from the scanning tunneling microscope tip. Ultramicroscopy, 1992, 42-44, 210-214.	1.9	14
122	Novel CH ₄ /H ₂ metalorganic reactive ion etching of Hg _{1-x} Cd _x Te. Applied Physics Letters, 1991, 59, 1752-1754.	3.3	23
123	Hole ionization of Mn-doped GaAs: Photoluminescence versus space-charge techniques. Physical Review B, 1989, 40, 5598-5601.	3.2	17
124	Characterization of the Mn acceptor level in GaAs. Journal of Applied Physics, 1988, 64, 1564-1567.	2.5	20
125	Chalcogens in germanium. Physical Review B, 1988, 37, 6916-6928.	3.2	51
126	Evidence for a substitutional Mg acceptor level in silicon. Physical Review B, 1988, 38, 10483-10489.	3.2	16

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127	The electron capture cross section of Se+in silicon. Semiconductor Science and Technology, 1988, 3, 847-852.	2.0	6
128	The influence of the RC product on capture cross section measurements in semiconductors. Semiconductor Science and Technology, 1988, 3, 839-846.	2.0	1
129	Hydrogen-like excited states of a deep donor in germanium. Solid State Communications, 1985, 54, 863-865.	1.9	11
130	Electrical properties of dislocations and point defects in plastically deformed silicon. Physical Review B, 1985, 32, 6571-6581.	3.2	287