Jan M Van Ruitenbeek

List of Publications by Year
in descending order

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156 papers	12,213 citations	41627 51 h-index	28425 109 g-index
160 all docs	160 docs citations	160 times ranked	6467 citing authors

#	Article	IF	Citations
1	Current-Induced One-Dimensional Diffusion of Co Adatoms on Graphene Nanoribbons. Nano Letters, 2021, 21, 8794-8799.	4.5	4
2	Direct evidence for Cooper pairing without a spectral gap in a disordered superconductor above T _c. Science, 2021, 374, 608-611.	6.0	23
3	Advances and challenges in single-molecule electron transport. Reviews of Modern Physics, 2020, 92, .	16.4	184
4	Identification of vibration modes in single-molecule junctions by strong inelastic signals in noise. Nanoscale, 2019, 11, 19462-19467.	2.8	7
5	Intuitive human interface to a scanning tunnelling microscope: observation of parity oscillations for a single atomic chain. Beilstein Journal of Nanotechnology, 2019, 10, 337-348.	1.5	2
6	Dynamic Tunneling Junctions at the Atomic Intersection of Two Twisted Graphene Edges. Nano Letters, 2018, 18, 2505-2510.	4.5	15
7	On the Formation of a Conducting Surface Channel by Ionicâ€Liquid Gating of an Insulator. Annalen Der Physik, 2018, 530, 1700449.	0.9	2
8	Anomalous Nonlinear Shot Noise at High Voltage Bias. Nano Letters, 2018, 18, 5217-5223.	4.5	12
9	ON the Nature of Ionic Liquid Gating of La2â^'xSrxCuO4. International Journal of Molecular Sciences, 2018, 19, 566.	1.8	1
10	Towards Controlled Single-Molecule Manipulation Using â€œReal-Timeâ€•Molecular Dynamics Simulation: A GPU Implementation. Micromachines, 2018, 9, 270.	1.4	4
11	In situtransmission electron microscope formation of a single-crystalline Bi film on an amorphous substrate. Applied Physics Letters, 2017, 110, 103101.	1.5	5
12	On the nature of ionic liquid gating of Nd2â^'xCexCuO4 thin films. Low Temperature Physics, 2017, 43, 290-295.	0.2	2
13	Efficient seed-mediated method for the large-scale synthesis of Au nanorods. Journal of Nanoparticle Research, 2017, 19, 115.	0.8	19
14	Fast and accurate shot noise measurements on atomic-size junctions in the MHz regime. Review of Scientific Instruments, 2017, 88, 093903.	0.6	11
15	Synthesis and surface enhanced raman scattering properties of gold nanoworms. Materials Today: Proceedings, 2017, 4, 7143-7148.	0.9	2
16	Inhomogeneous broadening of the conductance histograms for molecular junctions. Low Temperature Physics, 2017, 43, 905-909.	0.2	4
17	Robust procedure for creating and characterizing the atomic structure of scanning tunneling microscope tips. Beilstein Journal of Nanotechnology, 2017, 8, 2389-2395.	1.5	12
18	Molecular machines and devices. Beilstein Journal of Nanotechnology, 2016, 7, 310-311.	1.5	0

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19	Molecular Electronics: A Brief Overview of the Status of the Field. , 2016, , 1-23.		3
20	Temperature dependence of spin pumping and Gilbert damping in thin Co/Pt bilayers. Journal of Physics Condensed Matter, 2016, 28, 056004.	0.7	21
21	One-step Synthesis of Cetyltrimethylammonium Bromide Stabilized Spherical Gold Nanoparticles. Journal of Nanoscience With Advanced Technology, 2016, 1, 20-24.	0.8	8
22	Evidence for non-conservative current-induced forces in the breaking of Au and Pt atomic chains. Beilstein Journal of Nanotechnology, 2015, 6, 2338-2344.	1.5	26
23	Detecting Rashba fields at the interface between Co and Si oxide by ferromagnetic resonance. Physical Review B, 2015, 91, .	1.1	7
24	Molecule-assisted ferromagnetic atomic chain formation. Physical Review B, 2015, 91, .	1.1	9
25	Magnetic properties of Sm-Co thin films grown on MgO(100) deposited from a single alloy target. Journal of Applied Physics, 2014, 116, 053903.	1.1	2
26	Tuning the morphology of lead zirconate titanate (PZT) nanostructures. Materials Letters, 2014, 125, 71-74.	1.3	5
27	Facile synthesis of gold nanoworms with a tunable length and aspect ratio through oriented attachment of nanoparticles. Nanoscale, 2014, 6, 13222-13227.	2.8	17
28	Tuning the oriented deposition of gold nanorods on patterned substrates. Nanotechnology, 2014, 25, 035301.	1.3	20
29	Large tunable image-charge effects in single-molecule junctions. Nature Nanotechnology, 2013, 8, 282-287.	15.6	258
30	Electron tunneling into surface states through an inhomogeneous barrier: Asymptotically exact solution of the problem, and STM theory. Low Temperature Physics, 2013, 39, 299-303.	0.2	3
31	Fermi surface contours obtained from scanning tunneling microscope images around surface point defects. New Journal of Physics, 2013, 15, 123013.	1.2	5
32	Shot noise and magnetism of Pt atomic chains: Accumulation of points at the boundary. Physical Review B, 2013, 88, .	1.1	35
33	New directions in point-contact spectroscopy based on scanning tunneling microscopy techniques (Review Article). Low Temperature Physics, 2013, 39, 189-198.	0.2	9
34	Aharonov-Bohm type oscillations in the system of two tunnel point-contacts in the presence of single scatterer: determination of the depth of the buried impurity. Journal of Physics: Conference Series, 2012, 400, 042031.	0.3	0
35	High Currents, When Hot. Physics Magazine, 2012, 5, .	0.1	2
36	Dispersion forces unveiled. Nature Materials, 2012, 11, 834-835.	13.3	13

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37	Conductance of a STM contact on the surface of a thin film. Low Temperature Physics, 2012, 38, 503-510.	0.2	1
38	Observing â€œquantizedâ€•conductance steps in silver sulfide: Two parallel resistive switching mechanisms. Journal of Applied Physics, 2012, 111, .	1.1	65
39	Detection of Vibration-Mode Scattering in Electronic Shot Noise. Physical Review Letters, 2012, 108, 146602.	2.9	87
40	Inelastic scattering effects and electronic shot noise. , 2011, , .		1
41	Bulk and surface nucleation processes in Ag<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>S conductance switches. Physical Review B, 2011, 84, .	1.1	33
42	Quantum interference effects in a system of two tunnel point-contacts in the presence of a single scatterer: simulation of a double-tip STM experiment. Low Temperature Physics, 2011, 37, 53-58.	0.2	7
43	Transition Voltage Spectroscopy and the Nature of Vacuum Tunneling. Nano Letters, 2011, 11, 614-617.	4.5	60
44	Transport through molecular junctions. Beilstein Journal of Nanotechnology, 2011, 2, 691-692.	1.5	3
45	Charge transport in a zincâ€“porphyrin single-molecule junction. Beilstein Journal of Nanotechnology, 2011, 2, 714-719.	1.5	31
46	Influence of the Chemical Structure on the Stability and Conductance of Porphyrin Singleâ€Molecule Junctions. Angewandte Chemie - International Edition, 2011, 50, 11223-11226.	7.2	56
47	A versatile low-temperature setup for the electrical characterization of single-molecule junctions. Review of Scientific Instruments, 2011, 82, 053907.	0.6	44
48	Theory of oscillations in STM conductance caused by subsurface defects (Review Article). Low Temperature Physics, 2010, 36, 849-864.	0.2	11
49	Sandwich-type gated mechanical break junctions. Nanotechnology, 2010, 21, 265201.	1.3	52
50	Towards a quantitative description of solid electrolyte conductance switches. Nanoscale, 2010, 2, 2275.	2.8	29
51	Molecular signature of highly conductive metal-molecule-metal junctions. Physical Review B, 2009, 80, .	1.1	30
52	Magneto-orientation and quantum size effects in spin-polarized STM conductance in the presence of a subsurface magnetic cluster. Physical Review B, 2009, 80, .	1.1	5
53	Metallic properties of magnesium point contacts. New Journal of Physics, 2009, 11, 073043.	1.2	7
54	Conductance switching in Ag₂S devices fabricated byin situsulfurization. Nanotechnology, 2009, 20, 095710.	1.3	75

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55	A Nanoelectromechanical Single-Atom Switch. Nano Letters, 2009, 9, 2940-2945.	4.5	67
56	Atomic wires of carbon. Physics Magazine, 2009, 2, .	0.1	6
57	The signature of a single subsurface defect in the conductance of a tunnel point-contact. Journal of Physics: Conference Series, 2009, 150, 022045.	0.3	2
58	Lithographic mechanical break junctions for single-molecule measurements in vacuum: possibilities and limitations. New Journal of Physics, 2008, 10, 065008.	1.2	123
59	Fullerene-Based Anchoring Groups for Molecular Electronics. Journal of the American Chemical Society, 2008, 130, 13198-13199.	6.6	282
60	The signature of subsurface Kondo impurities in the local tunnel current. Journal of Physics Condensed Matter, 2008, 20, 115208.	0.7	8
61	Formation and properties of metalâ€“oxygen atomic chains. New Journal of Physics, 2008, 10, 033005.	1.2	39
62	Mechanical properties of Pt monatomic chains. Physical Review B, 2008, 77, .	1.1	32
63	Electron-Vibration Interaction in Single-Molecule Junctions: From Contact to Tunneling Regimes. Physical Review Letters, 2008, 100, 196804.	2.9	156
64	Aluminum nanowires: Influence of work hardening on conductance histograms. Physical Review B, 2008, 77, .	1.1	17
65	Highly Conductive Molecular Junctions Based on Direct Binding of Benzene to Platinum Electrodes. Physical Review Letters, 2008, 101, 046801.	2.9	287
66	Conductance of a tunnel point contact of noble metals in the presence of a single defect. Low Temperature Physics, 2008, 34, 207-210.	0.2	10
67	Influence of a single defect on the conductance of a tunnel point contact between a normal metal and a superconductor. Low Temperature Physics, 2008, 34, 936-942.	0.2	2
68	Controlled damaging and repair of self-organized nanostructures by atom manipulation at room temperature. Nanotechnology, 2007, 18, 365305.	1.3	8
69	Electronic and atomic shell structure in aluminium nanowires. Nanotechnology, 2007, 18, 265403.	1.3	7
70	The effect of bonding of a CO molecule on the conductance of atomic metal wires. Nanotechnology, 2007, 18, 035205.	1.3	39
71	Formation of a Metallic Contact: Jump to Contact Revisited. Physical Review Letters, 2007, 98, 206801.	2.9	73
72	Magneto-quantum oscillations of the conductance of a tunnel point contact in the presence of a single defect. Physical Review B, 2007, 75, .	1.1	11

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73	Evidence for a Single Hydrogen Molecule Connected by an Atomic Chain. Physical Review Letters, 2007, 98, 146802.	2.9	78
74	Formation of atomic-sized contacts controlled by electrochemical methods. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1677-1685.	0.8	9
75	Contacting Individual Molecules Using Mechanically Controllable Break Junctions. , 2006, , 253-274.		15
76	Oxygen-Enhanced Atomic Chain Formation. Physical Review Letters, 2006, 96, 026806.	2.9	135
77	Shot Noise Measurements on a Single Molecule. Nano Letters, 2006, 6, 789-793.	4.5	172
78	Live-action alloy nanowires. Nature Nanotechnology, 2006, 1, 164-165.	15.6	1
79	Vibrationally Induced Two-Level Systems in Single-Molecule Junctions. Physical Review Letters, 2006, 97, 226806.	2.9	85
80	Signature of Fermi-surface anisotropy in point contact conductance in the presence of defects. Physical Review B, 2006, 74, .	1.1	20
81	éŠ€ãŠãŠãëŸãƒŠãƒŽã‚¤ã‚ãƒƒãƒ. Nature Digest, 2005, 2, 24-25.	0.0	0
82	Observation of shell effects in nanowires for the noble metals Cu, Ag, and Au. Physical Review B, 2005, 72, .	1.1	59
83	Silver nanoswitch. Nature, 2005, 433, 21-22.	13.7	25
84	Atomic-Size Oscillations in Conductance Histograms for Gold Nanowires and the Influence of Work Hardening. Physical Review Letters, 2005, 95, 256806.	2.9	54
85	Method to determine defect positions below a metal surface by STM. Physical Review B, 2005, 71, .	1.1	28
86	A force sensor for atomic point contacts. Review of Scientific Instruments, 2005, 76, 103903.	0.6	27
87	Stretching dependence of the vibration modes of a single-moleculePtâˆ'H2âˆ'Ptbridge. Physical Review B, 2005, 71, .	1.1	142
88	Absence of magnetically induced fractional quantization in atomic contacts. Physical Review B, 2004, 69, .	1.1	124
89	Observation of electronic and atomic shell effects in gold nanowires. Physical Review B, 2004, 70, .	1.1	30
90	The high-bias stability of monatomic chains. Nanotechnology, 2004, 15, S472-S478.	1.3	98

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91	Quantum properties of atomic-sized conductors. Physics Reports, 2003, 377, 81-279.	10.3	1,404
92	Conductance of single-atom platinum contacts: Voltage dependence of the conductance histogram. Physical Review B, 2003, 67, .	1.1	49
93	Observation of a Parity Oscillation in the Conductance of Atomic Wires. Physical Review Letters, 2003, 91, 076805.	2.9	209
94	Current-induced transition in atomic-sized contacts of metallic alloys. Physical Review B, 2003, 67, .	1.1	33
95	Effect of disorder on the conductance of a Cu atomic point contact. Physical Review B, 2002, 65, .	1.1	44
96	Point-contact studies of the Kondo size effect in the alloys CuMn, CuCr, and AuFe in a magnetic field. Low Temperature Physics, 2002, 28, 123-127.	0.2	1
97	Current-Voltage Curves of Atomic-Sized Transition Metal Contacts: An Explanation of Why Au is Ohmic and Pt is Not. Physical Review Letters, 2002, 89, 066804.	2.9	95
98	Measurement of the conductance of a hydrogen molecule. Nature, 2002, 419, 906-909.	13.7	861
99	Shell effects in alkali metal nanowires. Low Temperature Physics, 2001, 27, 807-820.	0.2	25
100	Atomic-size metallic conductors. Die Naturwissenschaften, 2001, 88, 59-66.	0.6	14
101	Noisy times ahead. Nature, 2001, 410, 424-425.	13.7	3
102	Common Origin for Surface Reconstruction and the Formation of Chains of Metal Atoms. Physical Review Letters, 2001, 87, 266102.	2.9	264
103	Crossover from Electronic to Atomic Shell Structure in Alkali Metal Nanowires. Physical Review Letters, 2001, 87, 216805.	2.9	59
104	Point-contact-spectroscopy investigation of the Kondo size effect in CuCr and AuFe alloys. Low Temperature Physics, 2000, 26, 497-501.	0.2	1
105	Conductance fluctuations as a tool for investigating the quantum modes in atomic-size metallic contacts. Physical Review B, 2000, 61, 2273-2285.	1.1	113
106	Multiple Andreev reflection in single-atom niobium junctions. Physical Review B, 2000, 61, 8561-8569.	1.1	64
107	Supershell Structure in Alkali Metal Nanowires. Physical Review Letters, 2000, 84, 5832-5835.	2.9	73
108	Conductance Quantisation in Metallic Point Contacts. Springer Series in Cluster Physics, 2000, , 175-210.	0.3	6

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109	Observation of Shell Structure in Sodium Nanowires. Lecture Notes in Physics, 2000, , 305-305.	0.3	1
110	Quantum Suppression of Shot Noise in Atom-Size Metallic Contacts. Physical Review Letters, 1999, 82, 1526-1529.	2.9	151
111	Evidence for Saturation of Channel Transmission from Conductance Fluctuations in Atomic-Size Point Contacts. Physical Review Letters, 1999, 82, 1530-1533.	2.9	124
112	Observation of shell structure in sodium nanowires. Nature, 1999, 400, 144-146.	13.7	159
113	Thermopower of atomic-size metallic contacts. Physical Review B, 1999, 59, 12290-12293.	1.1	106
114	Formation and manipulation of a metallic wire of single gold atoms. Nature, 1998, 395, 783-785.	13.7	942
115	The signature of chemical valence in the electrical conduction through a single-atom contact. Nature, 1998, 394, 154-157.	13.7	597
116	Characterization of individual conductance steps in metallic quantum point contacts. Physica B: Condensed Matter, 1998, 252, 69-75.	1.3	51
117	Size-effect of Kondo scattering in point contacts (revisited). Low Temperature Physics, 1998, 24, 495-500.	0.2	0
118	Do Histograms Constitute a Proof for Conductance Quantization?. Physical Review Letters, 1997, 79, 2157-2157.	2.9	74
119	Conductance quantization in metals: The influence of subband formation on the relative stability of specific contact diameters. Physical Review B, 1997, 56, 12566-12572.	1.1	59
120	High stability STM made of a break junction. European Physical Journal D, 1996, 46, 2853-2854.	0.4	3
121	Atomic structure and quantized conductance in metal point contacts. Physica B: Condensed Matter, 1996, 218, 228-233.	1.3	47
122	Adjustable nanofabricated atomic size contacts. Review of Scientific Instruments, 1996, 67, 108-111.	0.6	295
123	Size-dependence study of the spin glassCuMn (1%). Physical Review B, 1996, 53, 15106-15112.	1.1	10
124	Size dependence of Kondo scattering in point contacts: Fe impurities in Cu. Physical Review B, 1996, 53, R476-R479.	1.1	12
125	The signature of conductance quantization in metallic point contacts. Nature, 1995, 375, 767-769.	13.7	555
126	Comment on "Quantized Conductance in an Atom-Sized Point Contact". Physical Review Letters, 1995, 74, 2146-2146.	2.9	55

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127	Size Dependence of Kondo Scattering in Point Contacts. Physical Review Letters, 1995, 74, 302-305.	2.9	69
128	Subgap Structure as Function of the Barrier in Atom-Size Superconducting Tunnel Junctions. Physical Review Letters, 1994, 73, 2611-2613.	2.9	96
129	Subquantum conductance steps in atom-sized contacts of the semimetal Sb. Physical Review B, 1994, 50, 17659-17661.	1.1	42
130	Quenching of Magnetic Moments by Ligand-Metal Interactions in Nanosized Magnetic Metal Clusters. Physical Review Letters, 1994, 73, 1432-1435.	2.9	181
131	Magnetic Properties of Metal Cluster Compounds. Physics and Chemistry of Materials With Low-dimensional Structures, 1994, , 277-306.	1.0	7
132	SIZE EFFECTS IN ORBITAL MAGNETISM. Modern Physics Letters B, 1993, 07, 1053-1069.	1.0	11
133	One-atom point contacts. Physical Review B, 1993, 48, 14721-14724.	1.1	330
134	Classical limit of microwave detection in atomic-sized superconducting contacts. Physical Review B, 1993, 48, 10622-10625.	1.1	0
135	Conductance and supercurrent discontinuities in atomic-scale metallic constrictions of variable width. Physical Review Letters, 1992, 69, 140-143.	2.9	420
136	Experimental observation of the transition from weak link to tunnel junction. Physica C: Superconductivity and Its Applications, 1992, 191, 485-504.	0.6	334
137	Size-dependent magnetisation of Pd clusters and colloids. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 170, 325-333.	0.9	50
138	Orbital magnetism in finite size systems. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1991, 19, 247-250.	1.0	13
139	Metallic susceptibility in giant molecule: Pd561Phen36O200. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1991, 19, 267-270.	1.0	6
140	Model calculation of size effects in orbital magnetism. Physical Review Letters, 1991, 67, 640-643.	2.9	47
141	Oxygen 1sx-ray absorption ofBaPb1â^'xBixO3. Physical Review B, 1991, 44, 5280-5285.	1.1	15
142	Measurement of the London moment in two high-temperature superconductors. Nature, 1990, 345, 418-419.	13.7	38
143	The effect of the oxygen content in Pb2SrLaCu2O6+Î´ and Pb2Ba2YCu3O8+Î´ on the structural and superconducting properties. Physica C: Superconductivity and Its Applications, 1990, 166, 502-512.	0.6	21
144	Properties of a new copper ternary compound La2Sr6Cu8O18â^'Î´. Solid State Communications, 1990, 73, 291-295.	0.9	17

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145	Shubnikovâ€“de Haas oscillations in intercalation compounds of 2H-TaS2. Physical Review B, 1989, 40, 115-118.	1.1	6
146	Superconductivity in (Pb, Bi)2Sr2â^'xLaxCu2O6+Î´. Physica C: Superconductivity and Its Applications, 1989, 159, 81-86.	0.6	95
147	Structural and transport properties of the triple-layer compounds Ba4(Pb1â^'xBix)3O10 (0â‰¤ x<0.3). Solid State Communications, 1989, 70, 1117-1121.	0.9	46
148	Magnetic field dependence of the cyclotron effective mass in the Kondo lattice CeB6. Journal of Applied Physics, 1988, 63, 3893-3895.	1.1	3
149	MAGNETIC FIELD DEPENDENCE OF THE CYCLOTRON MASS IN THE KONDO LATTICE CeB6. Journal De Physique Colloque, 1988, 49, C8-747-C8-751.	0.2	0
150	de Haasâ€“van Alphen effect inMoSi2. Physical Review B, 1987, 35, 7936-7938.	1.1	18
151	Observation of the magnetic field dependence of the cyclotron mass in the Kondo latticeCeB6. Physical Review Letters, 1987, 59, 1609-1612.	2.9	93
152	Suppression of the Mass Enhancement in CeB6in High Magnetic Fields. Japanese Journal of Applied Physics, 1987, 26, 507.	0.8	3
153	Study of 2D Electron Gas Properties in Acceptor Graphite Intercalated Compounds. Japanese Journal of Applied Physics, 1987, 26, 633.	0.8	4
154	Magnetoresistivity of the spin-fluctuation materialsTiBe2andUAl2. Physical Review B, 1986, 34, 8507-8511.	1.1	10
155	Geometry and field dependence of the Fermi surface in TiBe2studied with the DHVA effect in fields up to 35 T. Journal of Physics F: Metal Physics, 1984, 14, 2555-2569.	1.6	6
156	A de Haas-van Alphen study of the field dependence of the Fermi surface in ZrZn2. Journal of Physics F: Metal Physics, 1982, 12, 2919-2928.	1.6	39