joris Van de Vondel

List of Publications by Year
in descending order

82 papers	2,033 citations	279701 23 h-index	265120 42 g-index
83 all docs	83 docs citations	83 times ranked	1955 citing authors

#	Article	IF	Citations
1	Targeted modifications of monolithic multiterminal superconducting weak-links. Nanoscale, 2022, 14, 5425-5429.	2.8	1
2	Probing higher order optical modes in all-dielectric nanodisk, -square, and -triangle by aperture type scanning near-field optical microscopy. Nanophotonics, 2022, 11, 543-557.	2.9	3
3	Properties of ultrathin molybdenum films for interconnect applications. Materialia, 2022, 24, 101511.	1.3	15
4	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Nb</mml:mi></mml:math> -Based Nanoscale Superconducting Quantum Interference Devices Tuned by Electroannealing. Physical Review Applied, 2021, 15, .	1.5	10
5	Impact of Kinetic Inductance on the Critical-Current Oscillations of Nanobridge SQUIDs. Physical Review Applied, 2021, 16, .	1.5	8
6	Tuning the spintronic properties of graphene with atomically precise Au clusters. JPhys Materials, 2021, 4, 045005.	1.8	5
7	Two-dimensional perovskites with alternating cations in the interlayer space for stable light-emitting diodes. Nanophotonics, 2021, 10, 2145-2156.	2.9	17
8	Room temperature single electron transistor based on a size-selected aluminium cluster. Nanoscale, 2020, 12, 1164-1170.	2.8	11
9	Fractional Shapiro steps in resistively shunted Josephson junctions as a fingerprint of a skewed current-phase relationship. Physical Review B, 2020, 102, .	1.1	8
10	Tuning the Structural and Optoelectronic Properties of Cs₂AgBiBr₆ Doubleâ€Perovskite Single Crystals through Alkaliâ€Metal Substitution. Advanced Materials, 2020, 32, e2001878.	11.1	72
11	Giant fractional Shapiro steps in anisotropic Josephson junction arrays. Communications Physics, 2020, 3, .	2.0	9
12	Variation of local fields of pinned vortices with temperature. Applied Physics Letters, 2020, 116, 102601.	1.5	0
13	Electronic voltage control of magnetic anisotropy at room temperature in high- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î</mml:mi></mml:math> <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>SrTiO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> trilayer. Physical Review Materials, 2020, 4, .	2.9	10
14	Exploring the impact of core expansion on the vortex distribution in superconductingâ€“normal-metal hybrid nanostructures. Physical Review B, 2019, 100, .	1.1	6
15	Restoring self-limited growth of single-layer graphene on copper foil via backside coating. Nanoscale, 2019, 11, 5094-5101.	2.8	10
16	Experimental observation of electron-phonon coupling enhancement in Sn nanowires caused by phonon confinement effects. Physical Review B, 2019, 99, .	1.1	10
17	Electromigration in the dissipative state of high-temperature superconducting bridges. Applied Physics Letters, 2019, 114, .	1.5	6
18	Quantitative magneto-optical investigation of superconductor/ferromagnet hybrid structures. Review of Scientific Instruments, 2018, 89, 023705.	0.6	25

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19	Controlled electromigration protocol revised. Review of Scientific Instruments, 2018, 89, 043904.	0.6	12
20	Tunable artificial vortex ice in nanostructured superconductors with a frustrated kagome lattice of paired antidots. Physical Review B, 2018, 97, .	1.1	14
21	In situ tailoring of superconducting junctions via electro-annealing. Nanoscale, 2018, 10, 1987-1996.	2.8	24
22	Nano-SQUIDs with controllable weak links created via current-induced atom migration. Nanoscale, 2018, 10, 21475-21482.	2.8	13
23	Electronic Detection of Oxygen Adsorption and Sizeâ€Specific Doping of Fewâ€Atom Gold Clusters on Graphene. Advanced Materials Interfaces, 2018, 5, 1801274.	1.9	11
24	Healing Effect of Controlled Antiâ€Electromigration on Conventional and Highâ€T_c Superconducting Nanowires. Small, 2017, 13, 1700384.	5.2	15
25	Statistics of localized phase slips in tunable width planar point contacts. Scientific Reports, 2017, 7, 44569.	1.6	17
26	Electrically Driven Unidirectional Optical Nanoantennas. Nano Letters, 2017, 17, 7433-7439.	4.5	56
27	Mapping degenerate vortex states in a kagome lattice of elongated antidots via scanning Hall probe microscopy. Physical Review B, 2017, 96, .	1.1	13
28	Direct visualization of vortex ice in a nanostructured superconductor. Physical Review B, 2017, 96, .	1.1	15
29	Decorating graphene with size-selected few-atom clusters: a novel approach to investigate grapheneâ€“adparticle interactions. Nanoscale, 2017, 9, 10494-10501.	2.8	15
30	Pinning of superconducting vortices in MoGe/Au Thin nanoâ€“squares. Physica C: Superconductivity and Its Applications, 2017, 533, 109-113.	0.6	4
31	Determination of the spin-lifetime anisotropy in graphene using oblique spin precession. Nature Communications, 2016, 7, 11444.	5.8	76
32	Nanoscale assembly of superconducting vortices with scanning tunnelling microscope tip. Nature Communications, 2016, 7, 13880.	5.8	43
33	Probing the low-frequency vortex dynamics in a nanostructured superconducting strip. Physical Review B, 2016, 94, .	1.1	4
34	Magnetic dipoles at topological defects in the Meissner state of a nanostructured superconductor. Physical Review B, 2016, 93, .	1.1	8
35	Direct observation of condensate and vortex confinement in nanostructured superconductors. Physical Review B, 2016, 93, .	1.1	19
36	Thermal and quantum depletion of superconductivity in narrow junctions created by controlled electromigration. Nature Communications, 2016, 7, 10560.	5.8	41

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37	Onset, evolution, and magnetic braking of vortex lattice instabilities in nanostructured superconducting films. Physical Review B, 2015, 92, .	1.1	23
38	Stroboscopic phenomena in superconductors with dynamic pinning landscape. Scientific Reports, 2015, 5, 14604.	1.6	31
39	Vortices in a wedge made of a type-I superconductor. New Journal of Physics, 2015, 17, 063032.	1.2	10
40	Determination of the magnetic penetration depth in a superconducting Pb film. Journal of Applied Physics, 2014, 115, .	1.1	10
41	Global and Local Superconductivity in Boronâ€Doped Granular Diamond. Advanced Materials, 2014, 26, 2034-2040.	11.1	49
42	Closer look at the low-frequency dynamics of vortex matter using scanning susceptibility microscopy. Physical Review B, 2014, 90, .	1.1	10
43	Controllable morphology of flux avalanches in microstructured superconductors. Physical Review B, 2014, 89, .	1.1	41
44	Dynamic Visualization of Nanoscale Vortex Orbits. ACS Nano, 2014, 8, 2782-2787.	7.3	8
45	Observing vortex motion on NbSe2 with STM. Physica C: Superconductivity and Its Applications, 2014, 503, 154-157.	0.6	0
46	Temperature dependence of lower critical field<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>H</mml:mi><mml:mrow><mml:mi>c</mml:mi><mml:mn>1</mml:mn></mml:mrow nodeless superconductivity in FeSe. Physical Review B, 2013, 88, .	1.1	91
47	Electrical Detection of Spin Precession in Freely Suspended Graphene Spin Valves on Crossâ€Linked Poly(methyl methacrylate). Small, 2013, 9, 156-160.	5.2	39
48	Current crowding effects in superconducting corner-shaped Al microstrips. Applied Physics Letters, 2013, 102, .	1.5	50
49	Vortex ratchet induced by controlled edge roughness. New Journal of Physics, 2013, 15, 063022.	1.2	36
50	First vortex entry into a perpendicularly magnetized superconducting thin film. Physical Review B, 2013, 88, .	1.1	15
51	Local mapping of dissipative vortex motion. Physical Review B, 2012, 86, .	1.1	21
52	Localization of superconductivity in superconductorâ€“electromagnet hybrids. Superconductor Science and Technology, 2012, 25, 065015.	1.8	0
53	Vortex Dynamics in a Superconducting Film with a Kagome andÂaÂHoneycomb Pinning Landscape. Journal of Superconductivity and Novel Magnetism, 2011, 24, 7-11.	0.8	16
54	Mesoscopic cross-film cryotrons: Vortex trapping and dc-Josephson-like oscillations of the critical current. Physical Review B, 2011, 83, .	1.1	5

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55	Current-induced vortex trapping in asymmetric toothed channels. Physical Review B, 2011, 84, .	1.1	3
56	Vortex Core Deformation and Stepper-Motor Ratchet Behavior in a Superconducting Aluminum Film Containing an Array of Holes. Physical Review Letters, 2011, 106, 137003.	2.9	37
57	Microscopic picture of the critical state in a superconductor with a periodic array of antidots. Physical Review B, 2011, 83, .	1.1	21
58	Enhanced spin signal in nonlocal devices based on a ferromagnetic CoFeAl alloy. Applied Physics Letters, 2011, 99, 102107.	1.5	33
59	Local probing of the vortexâ€“antivortex dynamics in superconductor/ferromagnet hybrid structures. Superconductor Science and Technology, 2011, 24, 024007.	1.8	22
60	Field polarity dependent nucleation of superconductivity in quasi-one-dimensional magnetic templates. Physica C: Superconductivity and Its Applications, 2010, 470, 860-862.	0.6	0
61	Field polarity dependent superconducting properties in a superconductor/ferromagnet hybrid with in-plane magnetic moment. Physica C: Superconductivity and Its Applications, 2010, 470, 880-882.	0.6	0
62	Direct visualization of the vortex distributions in a superconducting film with a Penrose array of magnetic pinning centers: Symmetry induced giant vortex state. Physica C: Superconductivity and Its Applications, 2010, 470, 758-761.	0.6	1
63	Freezing vortex rivers. Physica C: Superconductivity and Its Applications, 2010, 470, 726-729.	0.6	3
64	Probing the discrete motion of vortices with rf excitations. Physica C: Superconductivity and Its Applications, 2010, 470, 857-859.	0.6	1
65	Formation of Stripelike Flux Patterns Obtained by Freezing Kinematic Vortices in a Superconducting Pb Film. Physical Review Letters, 2010, 104, 017001.	2.9	66
66	Magnetic field-driven superconductorâ€“insulator transition in boron-doped nanocrystalline chemical vapor deposition diamond. Journal of Applied Physics, 2010, 108, .	1.1	9
67	Guided Vortex Motion and Vortex Ratchets in Nanostructured Superconductors. Nanoscience and Technology, 2010, , 1-24.	1.5	9
68	Symmetry-Induced Giant Vortex State in a Superconducting Pb Film with a Fivefold Penrose Array of Magnetic Pinning Centers. Physical Review Letters, 2009, 103, 067007.	2.9	60
69	Self-organized mode-locking effect in superconductor/ferromagnet hybrids. Physical Review B, 2009, 79, .	1.1	19
70	Transition from turbulent to nearly laminar vortex flow in superconductors with periodic pinning. Physical Review B, 2009, 80, .	1.1	52
71	Pinning centers produced by magnetic microstructures. Superconductor Science and Technology, 2009, 22, 034002.	1.8	14
72	Magnetically controlled superconducting weak links. Applied Physics Letters, 2009, 95, 032501.	1.5	8

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73	Different regimes of nucleation of superconductivity in mesoscopic superconductor/ferromagnet hybrids. Physical Review B, 2008, 77, .	1.1	5
74	Tunable anisotropic nonlinearity in superconductors with asymmetric antidot array. Applied Physics Letters, 2008, 93, 082501.	1.5	5
75	Comment on â€œTransverse rectification in superconducting thin films with arrays of asymmetric defectsâ€•[Appl. Phys. Lett. 91, 062505 (2007)]. Applied Physics Letters, 2008, 92, 176101.	1.5	20
76	Asymmetry reversal of thermomagnetic avalanches in Pb films with a ratchet pinning potential. Physical Review B, 2007, 76, .	1.1	10
77	Dipole-Induced Vortex Ratchets in Superconducting Films with Arrays of Micromagnets. Physical Review Letters, 2007, 98, 117005.	2.9	62
78	Diode effects in the surface superconductivity regime. Europhysics Letters, 2007, 80, 17006.	0.7	10
79	Controlled multiple reversals of a ratchet effect. Nature, 2006, 440, 651-654.	13.7	263
80	Vortex ratchet effects in films with a periodic array of antidots. Physical Review B, 2006, 73, .	1.1	54
81	Effect of reversed magnetic domains on superconductivity in Pbâ^•BaFe12O19 hybrids. Applied Physics Letters, 2006, 88, 232505.	1.5	8
82	Vortex-Rectification Effects in Films with Periodic Asymmetric Pinning. Physical Review Letters, 2005, 94, 057003.	2.9	157