

# Per-Ake Nilsson

## List of Publications by Year in descending order

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51  
papers

1,627  
citations

331259

21  
h-index

288905

40  
g-index

51  
all docs

51  
docs citations

51  
times ranked

963  
citing authors

#	ARTICLE	IF	CITATIONS
1	Weak links and dc SQUIDS on artificial nonsymmetric grain boundaries in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . Applied Physics Letters, 1991, 59, 3030-3032.	1.5	244
2	Electromagnetic properties at the grain boundary interface of aYBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> bicrystal Josephson junction. Physical Review Letters, 1994, 72, 1260-1263.	2.9	123
3	Reduction of 1/f noise in high- $T_c$ dc superconducting quantum interference devices cooled in an ambient magnetic field. Applied Physics Letters, 1996, 69, 4099-4101.	1.5	98
4	Ultralow-Power Cryogenic InP HEMT With Minimum Noise Temperature of 1 K at 6 GHz. IEEE Electron Device Letters, 2012, 33, 664-666.	2.2	86
5	Cryogenic Broadband Ultra-Low-Noise MMIC LNAs for Radio Astronomy Applications. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 871-877.	2.9	76
6	Fabrication and characterization of field-plated buried-gate SiC MESFETs. IEEE Electron Device Letters, 2006, 27, 573-575.	2.2	66
7	Cryogenic InAs/AlSb HEMT Wideband Low-Noise IF Amplifier for Ultra-Low-Power Applications. IEEE Microwave and Wireless Components Letters, 2012, 22, 144-146.	2.0	65
8	Microstructure of an artificial grain boundary weak link in an YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> thin film grown on a (100)(110), [001]-tilt Y-ZrO <sub>2</sub> bicrystal. Ultramicroscopy, 1993, 51, 239-246.	0.8	58
9	High field-effect mobility in n-channel Si face 4H-SiC MOSFETs with gate oxide grown on aluminum ion-implanted material. IEEE Electron Device Letters, 2005, 26, 96-98.	2.2	51
10	Thermal Study of the High-Frequency Noise in GaN HEMTs. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 19-26.	2.9	50
11	An AlGaIn/GaN HEMT-Based Microstrip MMIC Process for Advanced Transceiver Design. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 1827-1833.	2.9	49
12	Flux-flow transistors based on long YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> bicrystal grain boundary junctions. Applied Physics Letters, 1994, 64, 1153-1155.	1.5	45
13	Terahertz detection in zero-bias InAs self-switching diodes at room temperature. Applied Physics Letters, 2013, 103, .	1.5	41
14	Josephson flux-flow resonances in overdamped longYBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> grain-boundary junctions. Physical Review B, 1995, 51, 8684-8687.	1.1	38
15	Characterization and Modeling of Cryogenic Ultralow-Noise InP HEMTs. IEEE Transactions on Electron Devices, 2013, 60, 206-212.	1.6	38
16	Effects of substrate temperature on the microstructure of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> films grown on (001) Y- $\epsilon$ -ZrO <sub>2</sub> substrates. Applied Physics Letters, 1992, 61, 723-725.	1.5	35
17	An SiC MESFET-Based MMIC Process. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 4072-4078.	2.9	34
18	Low 1/fnoise in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> dc SQUIDS on (Y)ZrO <sub>2</sub> bicrystal substrates. Applied Physics Letters, 1992, 61, 861-863.	1.5	31

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19	High field effect mobility in Si face 4H-SiC MOSFET transistors. Electronics Letters, 2004, 40, 508.	0.5	30
20	0.3-14 and 16-28 GHz Wide-Bandwidth Cryogenic MMIC Low-Noise Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2018, , 1-10.	2.9	27
21	A Single-Ended Resistive $X$ -Band AlGaIn/GaN HEMT MMIC Mixer. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 2201-2206.	2.9	25
22	Bicrystal junctions and superconducting quantum interference devices in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films. Journal of Applied Physics, 1994, 75, 7972-7977.	1.1	21
23	Two-Finger InP HEMT Design for Stable Cryogenic Operation of Ultra-Low-Noise Ka- and Q-Band LNAs. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 5171-5180.	2.9	21
24	Anisotropic transport properties in InAs/AlSb heterostructures. Applied Physics Letters, 2010, 97, .	1.5	20
25	Laser-deposited PrGaO <sub>3</sub> films on SrTiO <sub>3</sub> substrates and in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> /PrGaO <sub>3</sub> /YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> trilayers. Applied Physics Letters, 1992, 61, 486-488.	1.5	17
26	A highly linear double balanced Schottky diode S-band mixer. IEEE Microwave and Wireless Components Letters, 2006, 16, 336-338.	2.0	17
27	Electro-thermal simulations of a microwave 4H-SiC MESFET on high purity semi-insulating substrate. Solid-State Electronics, 2007, 51, 1144-1152.	0.8	17
28	Transient Simulation of Microwave SiC MESFETs With Improved Trap Models. IEEE Transactions on Electron Devices, 2010, 57, 729-732.	1.6	17
29	SiC Varactors for Dynamic Load Modulation of High Power Amplifiers. IEEE Electron Device Letters, 2008, 29, 728-730.	2.2	15
30	InAs/AlSb HEMTs for cryogenic LNAs at ultra-low power dissipation. Solid-State Electronics, 2011, 64, 47-53.	0.8	15
31	Properties of artificial grain boundary weak links grown on Y-ZrO <sub>2</sub> bicrystals. Superconductor Science and Technology, 1991, 4, 439-441.	1.8	13
32	Planar InAs/AlSb HEMTs With Ion-Implanted Isolation. IEEE Electron Device Letters, 2012, 33, 510-512.	2.2	13
33	Influence of Field Plates and Surface Traps on Microwave Silicon Carbide MESFETs. IEEE Transactions on Electron Devices, 2008, 55, 1875-1879.	1.6	11
34	Cryogenic Kink Effect in InP pHEMTs: A Pulsed Measurements Study. IEEE Transactions on Electron Devices, 2015, 62, 532-537.	1.6	11
35	Dependence of noise temperature on physical temperature for cryogenic low-noise amplifiers. Journal of Astronomical Telescopes, Instruments, and Systems, 2017, 3, 014003.	1.0	11
36	Growth and properties of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> /(SrTiO <sub>3</sub> /PrGaO <sub>3</sub> )/YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> trilayers: Optimization of the insulation. Journal of Applied Physics, 1994, 75, 827-834.	1.1	10

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37	Design and Fabrication of 4H-SiC RF MOSFETs. IEEE Transactions on Electron Devices, 2007, 54, 3138-3145.	1.6	10
38	Elimination of pinholes in epitaxial thin film YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> /SrTiO <sub>3</sub> /PrGaO <sub>3</sub> multilayers. Applied Physics Letters, 1993, 63, 1567-1569.	1.5	9
39	100 GHz oscillations on monolithic high T <sub>c</sub> chip. Applied Physics Letters, 1993, 62, 896-898.	1.5	9
40	Influence of inductance induced noise in an YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> dc SQUID at high operation temperatures. Applied Physics Letters, 1994, 64, 2445-2447.	1.5	9
41	Cryogenic Performance of Low-Noise InP HEMTs: A Monte Carlo Study. IEEE Transactions on Electron Devices, 2013, 60, 1625-1631.	1.6	9
42	DC, RF and noise performance of InAs/AlSb HEMTs with in situ CVD SiN <sub>x</sub> -film for early-protection against oxidation. Solid-State Electronics, 2013, 87, 85-89.	0.8	8
43	Suppression of Parasitic Substrate Modes in Multilayer Integrated Circuits. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 591-594.	1.4	7
44	High resolution patterning of high T <sub>c</sub> superconducting thin films. Superconductor Science and Technology, 1991, 4, S112-S114.	1.8	5
45	Low excess flux noise in YBa <sub>2</sub> /Cu <sub>3</sub> O <sub>7-x</sub> dc SQUIDs cooled in static magnetic fields. IEEE Transactions on Applied Superconductivity, 1997, 7, 2772-2775.	1.1	5
46	High quality YBCO thin films - laser deposition, co-evaporation, and device fabrication. Physica Scripta, 1991, 44, 95-101.	1.2	4
47	Planarized patterning of Y-Ba-Cu-O thin films for multilayer technology. IEEE Transactions on Applied Superconductivity, 1995, 5, 1653-1656.	1.1	4
48	Fabrication and DC characterization of InAs/AlSb self-switching diodes. , 2012, , .		4
49	True planar InAs/AlSb HEMTs with ion-implantation technique for low-power cryogenic applications. Solid-State Electronics, 2013, 79, 268-273.	0.8	2
50	Two-finger InP HEMT design for stable cryogenic operation of ultra-low-noise Ka-band LNAs. , 2017, , .		2
51	Nanochannel diodes based on InAs/Al <sub>0.8</sub> Ga <sub>0.2</sub> Sb heterostructures: Fabrication and zero-bias detector properties. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2015, 33, 021207.	0.6	1