Jens Anders

List of Publications by Year
in descending order

116	1,088	516561	580701
papers	citations	16 h-index	25 g-index

121	121	121	748
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On-Chip Nuclear Magnetic Resonance. , 2022, , 667-698.		1
2	A Frontend for Magnetoresistive Sensors With a 2.2-pA/âˆšHz Low-Noise Current Source. IEEE Solid-State Circuits Letters, 2022, 5, 17-20.	1.3	2
3	A portable NMR platform with arbitrary phase control and temperature compensation. Magnetic Resonance, 2022, 3, 77-90.	0.8	12
4	An Integrator-Differentiator Transimpedance Amplifier Using Tunable Linearized High-Value Multi-Element Pseudo-Resistors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 3150-3163.	3.5	1
5	A Compact C-band EPR-on-a-chip Transceiver in 130-nm SiGe BiCMOS. , 2022, , .		1
6	Progress in miniaturization and low-field nuclear magnetic resonance. Journal of Magnetic Resonance, 2021, 322, 106860.	1.2	23
7	On-Chip Nuclear Magnetic Resonance. , 2021, , 1-32.		0
8	A 12-to-15Âb, 100-to-25ÂkS/s Resolution Reconfigurable, Power Scalable Incremental ADC Using Ultrathin Chips. , 2021, 5, 1-4.		2
9	When the MOUSE leaves the house. Magnetic Resonance, 2021, 2, 149-160.	0.8	17
10	Rapid-scan electron paramagnetic resonance using an EPR-on-a-Chip sensor. Magnetic Resonance, 2021, 2, 673-687.	0.8	6
11	On the modeling of amplitude-sensitive electron spin resonance (ESR) detection using voltage-controlled oscillator (VCO)-based ESR-on-a-chip detectors. Magnetic Resonance, 2021, 2, 699-713.	0.8	8
12	A 0.1 MHz to 200 MHz high-voltage CMOS transceiver for portable NMR systems with a maximum output current of 2.0 A_{pp}. , 2021, , .		9
13	A 440-kOhm to 150-GOhm Tunable Transimpedance Amplifier based on Multi-Element Pseudo-Resistors. , 2021, , .		4
14	A readout circuit for tunnel magnetoresistive sensors employing an ultra-low-noise current source. , 2021, , .		4
15	Time-Resolved Scanning Ion Conductance Microscopy for Three-Dimensional Tracking of Nanoscale Cell Surface Dynamics. ACS Nano, 2021, 15, 17613-17622.	7.3	31
16	A 14-channel 7 GHz VCO-based EPR-on-a-chip sensor with rapid scan capabilities. , 2021, , .		7
17	Noise-aware design methodology of ultra-low-noise transimpedance amplifiers. , 2021, , .		0
18	An S-band EPR-on-a-chip Receiver in 0.13 Î¼m BiCMOS. , 2021, , .		3

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19	A Signal Acquisition Setup for Ultrashort Echo Time Imaging Operating in Parallel on Unmodified Clinical MRI Scanners Achieving an Acquisition Delay of $ext{3}~{mu}ext{s}$. IEEE Transactions on Medical Imaging, 2020, 39, 218-225.	5.4	1
20	A CMOS NMR needle for probing brain physiology with high spatial and temporal resolution. Nature Methods, 2020, 17, 64-67.	9.0	28
21	An Active CMOS NMR Field Probe with Custom Transceiver and Î£Î” Modulator ASICs and an Optical Link. , 2020, , .		0
22	A High Voltage CMOS Transceiver for Low-Field NMR with a Maximum Output Current of 1.4 A_{pp}. , 2020, , .		15
23	Stability Analysis of Incremental Î£Î” Modulators using Mixed-Logic Dynamical Systems and Optimal Control Theory. , 2020, , .		0
24	Microscale Electrochemical Cell on a Custom CMOS Transimpedance Amplifier for High Temporal Resolution Single Entity Electrochemistry**. ChemElectroChem, 2020, 7, 4724-4729.	1.7	6
25	An H-shaped low-field magnet for NMR spectroscopy designed using the finite element method. International Journal of Applied Electromagnetics and Mechanics, 2019, 60, S3-S14.	0.3	4
26	Comparison of Different Precision Pseudo Resistor Realizations in the DC-Feedback of Capacitive Transimpedance Amplifiers. , 2019, , .		1
27	Guest Editorial Special Issue on Magnetic Sensing Systems for Biomedical Application. IEEE Sensors Journal, 2019, 19, 8970-8970.	2.4	0
28	Comparison of prospective head motion correction with NMR field probes and an optical tracking system. Magnetic Resonance in Medicine, 2019, 81, 719-729.	1.9	23
29	Towards Low-Cost, High-Sensitivity Point-of-Care Diagnostics Using VCO-Based ESR-on-a-Chip Detectors. IEEE Sensors Journal, 2019, 19, 8995-9003.	2.4	13
30	An 8-channel 13GHz ESR-on-a-Chip injection-locked vco-array achieving 200Î¼M-concentration sensitivity. , 2018, , .		16
31	An EM Simulation-Based Design Flow for Custom-Built MR Coils Incorporating Signal and Noise. IEEE Transactions on Medical Imaging, 2018, 37, 527-535.	5.4	7
32	A Nyquist Rate SAR ADC Employing Incremental Sigma Delta DAC Achieving Peak SFDR = 107 dB at 80 kS/s. IEEE Journal of Solid-State Circuits, 2018, 53, 1493-1507.	3.5	14
33	A 0.1% THD, 1-M<inline-formula> <tex-math notation="LaTeX">$Omega$ </tex-math> </inline-formula> to 1-G<inline-formula> <tex-math notation="LaTeX">$Omega$ </tex-math> </inline-formula> Tunable, Temperature-Compensated Transimpedance Amplifier Using a Multi-Element Pseudo-Resistor. IEEE Journal of Solid-State Circuits, 2018, 53, 1913-1923.	3.5	54
34	Nonlinear Modeling of Continuous-Wave Spin Detection Using Oscillator-Based ESR-on-a-Chip Sensors. Studies in Systems, Decision and Control, 2018, , 57-87.	0.8	1
35	An Analog High-Speed Single-Cycle Lock-in Amplifier for Next Generation AFM Experiments. , 2018, , .		0
36	Towards IC-based quantum sensing - recent achievements and future research trends. , 2018, , .		2

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37	An Integrator-Differentiator TIA Using a Multi-Element Pseudo-Resistor in its DC Servo Loop for Enhanced Noise Performance. , 2018, , .		9
38	Nonlinear Energy-Efficient Noise-Aware Design of CMOS LC Tank Oscillators. , 2018, , .		0
39	Proof of concept for an optogalvanic gas sensor for NO based on Rydberg excitations. Applied Physics Letters, 2018, 113, .	1.5	11
40	Comparison Study of Integrated Potentiostats: Resistive-TIA, Capacitive-TIA, CT Î£Î" Modulator. , 2018, , .		20
41	Single-chip electron spin resonance detectors operating at 50 GHz, 92 GHz, and 146 GHz. Journal of Magnetic Resonance, 2017, 278, 113-121.	1.2	26
42	A 107 dB SFDR, 80 kS/s Nyquist-rate SAR ADC using a hybrid capacitive and incremental Î£Î" DAC. , 2017, , .		1
43	A transimpedance amplifier using a widely tunable PVT-independent pseudo-resistor for high-performance current sensing applications. , 2017, , .		22
44	A miniaturized UWB antenna for implantable data telemetry. , 2017, 2017, 1086-1089.		7
45	Live demonstration: A VCO-based point-of-care ESR spectrometer. , 2017, , .		0
46	VCO-based ESR-on-a-chip as a tool for low-cost, high-sensitivity food quality control. , 2017, , .		8
47	A â˜'245 dB FOM 48 fs rms jitter semi-digital PLL with intrinsic temperature compensation in 130 nm CMOS. , 2017, , .		1
48	VCO-based ESR-on-a-chip as a tool for low-cost, high-sensitivity point-of-care diagnostics. , 2017, , .		2
49	Live demonstration: A VCO-based point-of-care ESR spectrometer. , 2017, , .		1
50	Integrated Circuit Technology for Next Generation Point-of-Care Spectroscopy Applications. , 2017, 55, 143-151.		9
51	Towards CMOS-based in-vivo NMR spectroscopy and microscopy. , 2017, , .		7
52	Digital interferer suppression and jitter reduction in continuous-time bandpass Î£Î" modulators. , 2017, , .		2
53	A bidirectional neural interface featuring a tunable recorder and electrode impedance estimation. , 2016, , .		9
54	Phase noise vs. jitter analysis in continuous-time LP and BP Î£Î" modulators with interferers. , 2016, , .		3

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55	A continuous-time field programmable analog array with 1 GHz GBW. , 2016, , .		1
56	Finite GBW in single OpAmp CT Î£Î” modulators. , 2016, , .		2
57	A low-power high-sensitivity single-chip receiver for NMR microscopy. Journal of Magnetic Resonance, 2016, 266, 41-50.	1.2	29
58	A hybrid comparator for high resolution SAR ADC. , 2016, , .		4
59	A bidirectional neural interface IC with high voltage compliance and spectral separation. , 2016, , .		8
60	Design and validation of a 10-bit current mode SAR ADC with 58.4 dB SFDR at 50 MS/s in 90 nm CMOS. Analog Integrated Circuits and Signal Processing, 2016, 89, 283-295.	0.9	8
61	An array of fully-integrated quadrature TX/RX NMR field probes for MRI trajectory mapping. , 2016, , .		22
62	A tunable, robust pseudo-resistor with enhanced linearity for scanning ion-conductance microscopy. , 2016, , .		23
63	28.2 A 14GHz battery-operated point-of-care ESR spectrometer based on a 0.13Âµm CMOS ASIC. , 2016, , .		18
64	Bidirectional optical transcutaneous telemetric link for brain machine interface. Electronics Letters, 2015, 51, 1969-1971.	0.5	21
65	Modeling and Design of high-speed FM-AFM driver electronics using Cadence VirtuosoÂ® and SimulinkÂ®. IFAC-PapersOnLine, 2015, 48, 671-672.	0.5	1
66	A 10-bit reference free current mode SAR ADC with 58.4 dB SFDR at 50 MS/s in 90 nm CMOS. , 2015, , .		1
67	A BW-tracking semi-digital PLL with near-optimal VCO phase noise shaping in low-cost 0.4 Âµm CMOS achieving 700 fs rms phase jitter. , 2015, , .		0
68	Estimation of Non-Idealities in Sigma-Delta Modulators for Test and Correction Using Unscented Kalman Filters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1240-1249.	3.5	5
69	Finite GBW compensation technique for CT ΔΣ modulators with differentiator based ELD compensation. , 2015, , .		3
70	Design study on a SAR ADC using an incremental ΣΔ-DAC. , 2015, , .		0
71	A 10-bit 150MS/s current mode SAR ADC in 90nm CMOS. , 2015, , .		4
72	Performance evaluation of a low power optical wireless link for biomedical data transfer. , 2014, , .		7

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73	Employing incremental sigma delta DACs for high resolution SAR ADC. , 2014, , .		4
74	Design of a high linearity Gm stage for a high speed current mode SAR ADC. , 2014, , .		3
75	A neural recorder IC with HV input multiplexer for voltage and current stimulation with 18V compliance. , 2014, , .		9
76	A 1.92-GS/s CT ΔΣ modulator with 70-db DR and 78-db SFDR in 15-MHz bandwidth. , 2014, , .		0
77	Live demonstration: In vivo verification of a 100 Mbps transcutaneous optical telemetric link. , 2014, , .		2
78	In vivo verification of a 100 Mbps transcutaneous optical telemetric link. , 2014, , .		23
79	A high resolution transimpedance amplifier for use in a 10-bit 200 MS/s current mode SAR ADC. , 2014, , .		4
80	Real-time data compression of neural spikes. , 2014, , .		7
81	A bootstrap transimpedance amplifier for high speed optical transcutaneous wireless links. , 2014, , .		0
82	A square root unscented Kalman filter for estimating DAC and loopfilter nonidealities in continuous-time sigma-delta modulators. , 2014, , .		3
83	Single-Cycle-PLL Detection for Real-Time FM-AFM Applications. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 206-215.	2.7	8
84	A GPU-Accelerated Web-Based Synthesis Tool for CT Sigma-Delta Modulators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 1429-1441.	3.5	44
85	Cryogenic single-chip electron spin resonance detector. Journal of Magnetic Resonance, 2014, 247, 96-103.	1.2	26
86	Wide-band efficiency-enhanced CMOS rectifier. , 2014, , .		4
87	System level model for transcutaneous optical telemetric link. , 2013, , .		1
88	Design optimization of the optical receiver in transcutaneous telemetric links. , 2013, , .		3
89	Novel electronics for high-speed FM-AFM in life science applications. , 2013, , .		1
90	Analysis and design of high speed/high linearity continuous time delta-sigma modulator. , 2013, , .		3

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91	PLL-based high-speed demodulation of FM signals for real-time AFM applications. , 2013, , .		2
92	An advanced unscented Kalman filter algorithm for parameter estimation in continuous-time sigma-delta modulators. , 2013, , .		1
93	A bidirectional neural interface with a HV stimulator and a LV neural amplifier. , 2013, , .		15
94	Room temperature strong coupling between a microwave oscillator and an ensemble of electron spins. Journal of Magnetic Resonance, 2013, 231, 133-140.	1.2	22
95	Frequency noise of CMOS LC tank oscillators operating in weak inversion. , 2013, , .		4
96	Design of a current steering DAC for a high speed current mode SAR ADC. , 2013, , .		6
97	A fully-integrated detector for NMR microscopy in 0.13μm CMOS. , 2013, , .		13
98	An active TX/RX NMR probe for real-time monitoring of MRI field imperfections. , 2013, , .		9
99	Discrete-time simulation of continuous-time ΣΔ modulators with arbitrary input signals. , 2013, , .		0
100	An Active Transmit/Receive NMR Magnetometer for Field Monitoring in Ultra High Field MRI Scanners. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.9	2
101	K-band single-chip electron spin resonance detector. Journal of Magnetic Resonance, 2012, 217, 19-26.	1.2	44
102	Integrated active tracking detector for MRIâ€guided interventions. Magnetic Resonance in Medicine, 2012, 67, 290-296.	1.9	23
103	3D solenoidal microcoil arrays with CMOS integrated amplifiers for parallel MR imaging and spectroscopy. , 2011, , .		12
104	A fully integrated IQ-receiver for NMR microscopy. Journal of Magnetic Resonance, 2011, 209, 1-7.	1.2	34
105	A quadrature receiver for μNMR applications in 0.13μm CMOS. , 2010, , .		6
106	Mixed-logic dynamical system modeling of ΣΔ-modulators and its application to stability analysis. , 2009, , .		1
107	A single-chip array of NMR receivers. Journal of Magnetic Resonance, 2009, 201, 239-249.	1.2	56
108	An integrated CMOS receiver chip for NMR-applications. , 2009, , .		12

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109	A 2.5 mW 80 dB DR 36 dB SNDR 22 MS/s Logarithmic Pipeline ADC. IEEE Journal of Solid-State Circuits, 2009, 44, 2755-2765.	3.5	37
110	A Low-Noise CMOS Receiver Frontend for NMR-based Surgical Guidance. IFMBE Proceedings, 2009, , 89-93.	0.2	1
111	A low-noise CMOS receiver frontend for MRI. , 2008, , .		14
112	A new optimization approach for the automatic design of Î£Î”-modulators. , 2008, , .		0
113	ISS-PreistrÃger 2008. Frequenz, 2008, 62, .	0.6	0
114	A 2.5mW 80dB DR 36dB SNDR 22MS/s Logarithmic Pipeline ADC. , 2007, , .		5
115	Re-Configuration of Sub-blocks for Effective Application of Time Domain Tests. , 2007, , .		0
116	On the modeling and the stability of continuous-time Î£Î”-Modulators. , 2007, , .		1