

Sylvie Contreras

List of Publications by Year in descending order

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89
papers

1,178
citations

471477

17
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434170

31
g-index

89
all docs

89
docs citations

89
times ranked

1232
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical transport inn-type 4H silicon carbide. Journal of Applied Physics, 2001, 90, 1869-1878.	2.5	107
2	Cyclotron resonance and quantum Hall effect studies of the two-dimensional electron gas confined at the GaN/AlGaN interface. Applied Physics Letters, 1997, 70, 2123-2125.	3.3	80
3	Electrical transport properties of aluminum-implanted 4H-SiC. Journal of Applied Physics, 2005, 98, 023706.	2.5	74
4	Reversible optical doping of graphene. Scientific Reports, 2013, 3, 2355.	3.3	74
5	Activation of aluminum implanted at high doses in 4H-SiC. Journal of Applied Physics, 2000, 88, 1971-1977.	2.5	61
6	Free electron density and mobility in high-quality 4H-SiC. Applied Physics Letters, 2000, 77, 4359-4361.	3.3	61
7	Unambiguous determination of carrier concentration and mobility for InAs/GaSb superlattice photodiode optimization. Journal of Applied Physics, 2009, 106, 033709.	2.5	50
8	High sensitivity hall sensors with low thermal drift using AlGaAs/InGaAs/GaAs heterostructures. Sensors and Actuators A: Physical, 1994, 43, 135-140.	4.1	39
9	Catalytic reduction of nitrates in water on Pt promoted Cu hydrotalcite-derived catalysts: Effect of the Pt-Cu alloy formation. Applied Catalysis B: Environmental, 2011, 110, 58-70.	20.2	38
10	Low-frequency noise in GaN/GaN heterojunctions. Applied Physics Letters, 1998, 72, 3053-3055.	3.3	36
11	Electrical characterization of SiC for high-temperature thermal-sensor applications. Sensors and Actuators A: Physical, 1995, 46, 71-75.	4.1	27
12	Negative charge state of the DX center in Al _x Ga _{1-x} As:Si. Physical Review Letters, 1991, 66, 1737-1740.	7.8	26
13	Electrical resistivity and metal-nonmetal transition inn-type doped 4H-SiC. Physical Review B, 2006, 74, .	3.2	25
14	Pt-Ag/activated carbon catalysts for water denitration in a continuous reactor: Incidence of the metal loading, Pt/Ag atomic ratio and Pt metal precursor. Applied Catalysis B: Environmental, 2012, 127, 351-362.	20.2	23
15	Low-frequency noise in n-GaN. Semiconductors, 1998, 32, 257-260.	0.5	22
16	4H-SiC: a material for high temperature Hall sensor. Sensors and Actuators A: Physical, 2002, 97-98, 27-32.	4.1	22
17	Electrical transport properties of p-type 4H-SiC. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600679.	1.8	20
18	Evidence for the negative charge state of DX centres in Al _x Ga _{1-x} As:Si. Semiconductor Science and Technology, 1991, 6, 505-509.	2.0	18

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19	Buffer layers inhomogeneity and coupling with epitaxial graphene unravelled by Raman scattering and graphene peeling. Carbon, 2020, 163, 224-233.	10.3	17
20	Low-cost 2DEG magnetic sensor with metrological performances for magnetic field and current sensing. , 0, , .		16
21	High magnetic field studies of two-dimensional electron gas in a GaN/GaN heterostructure: Mechanisms of parallel conduction. Journal of Applied Physics, 2001, 89, 1251-1255.	2.5	16
22	Process-induced strain in silicon-on-insulator materials. Journal of Physics Condensed Matter, 2002, 14, 13411-13416.	1.8	16
23	Investigation of AlGaIn ^x AlN ^y GaN heterostructures for magnetic sensor application from liquid helium temperature to 300°C. Applied Physics Letters, 2008, 92, .	3.3	16
24	High-performance Hall sensors based on In ^x V heterostructures. Sensors and Actuators A: Physical, 1994, 42, 450-454.	4.1	15
25	High temperature electrical investigations of (Al,Ga)N/GaN heterostructures - Hall sensor applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 1438-1443.	0.8	14
26	Effect of impregnation protocol in the metallic sites of Pt ^x Ag/activated carbon catalysts for water denitration. Applied Surface Science, 2014, 298, 75-89.	6.1	13
27	Catalytic activity and characterization of Pt/calcined CuZnAl hydrotalcites in nitrate reduction reaction in water. Catalysis Today, 2011, 175, 370-379.	4.4	12
28	Optimization of the properties of the molybdenum back contact deposited by radiofrequency sputtering for Cu(In ^x Gax)Se ₂ solar cells. Solar Energy Materials and Solar Cells, 2018, 174, 418-422.	6.2	12
29	Temperature-Dependent Hall Effect Measurements in Low ^x Compensated p-Type 4H-SiC. Materials Science Forum, 2004, 457-460, 677-680.	0.3	11
30	SiC materials: a semiconductor family for the next century. Comptes Rendus Physique, 2000, 1, 5-21.	0.1	10
31	Control of Al-implantation doping in 4H-SiC. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 80, 362-365.	3.5	10
32	Electronic properties of InAs/GaSb superlattice detectors to evaluate high-temperature operation. Proceedings of SPIE, 2010, , .	0.8	10
33	High temperature electrical transport study of Si-doped AlN. Superlattices and Microstructures, 2016, 98, 253-258.	3.1	10
34	High temperature behaviour of AlGaIn/AlN/GaN Hall-FET sensors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 165, 1-4.	3.5	9
35	Growth of low doped monolayer graphene on SiC(0001) via sublimation at low argon pressure. Physical Chemistry Chemical Physics, 2017, 19, 15833-15841.	2.8	9
36	Local-environment dependence of the DX centre in GaAlAs: alloy and superlattice studies. Semiconductor Science and Technology, 1991, 6, B58-B61.	2.0	8

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37	Non-trivial Berry phase in the Cd ₃ As ₂ 3D Dirac semimetal. Journal of Physics: Conference Series, 2015, 647, 012064.	0.4	8
38	Characterization of a new device for pressure sensing: the AlGaAs/GaAs TEGFET. Sensors and Actuators A: Physical, 1992, 33, 53-56.	4.1	7
39	A novel selectively $\hat{\Gamma}$ -doped AlGaAs/(In,Ga,As)/GaAs pseudomorphic heterostructure. Optical Materials, 2001, 17, 299-303.	3.6	7
40	High pressure study of the electrical transport phenomena in AlGaN/GaN heterostructures. Physica Status Solidi (B): Basic Research, 2003, 235, 232-237.	1.5	7
41	Results of SIMS, LTPL and Temperature-Dependent Hall Effect Measurements Performed on Al-Doped $\hat{\Gamma}$ -SiC Substrates Grown by the M-PVT Method. Materials Science Forum, 2006, 527-529, 633-636.	0.3	7
42	4H-SiC Material for Hall Effect and High-Temperature Sensors Working in Harsh Environments. Materials Science Forum, 2002, 389-393, 1435-1438.	0.3	6
43	Effect of pressure on electrical properties of short period InAs/GaSb superlattice. Physica Status Solidi (B): Basic Research, 2009, 246, 643-647.	1.5	6
44	Pt/CuZnAl mixed oxides for the catalytic reduction of nitrates in water: Study of the incidence of the Cu/Zn atomic ratio. Physics Procedia, 2010, 8, 44-48.	1.2	6
45	Raman Investigation of Aluminum-Doped 4H-SiC. Materials Science Forum, 2013, 740-742, 357-360.	0.3	6
46	Electrical transport properties of highly doped N-type GaN materials. Semiconductor Science and Technology, 2022, 37, 055012.	2.0	6
47	Evaluation of MESFET structures from temperature-dependent Hall effect measurements. Physica Status Solidi A, 2003, 195, 243-247.	1.7	5
48	Influence of AlN thickness on AlGaN epilayer grown by MOCVD. Superlattices and Microstructures, 2016, 98, 515-521.	3.1	5
49	Electrical Transport Properties of Highly Aluminum Doped p-Type 4H-SiC. Materials Science Forum, 0, 858, 249-252.	0.3	5
50	High temperature electrical transport properties of MBE-grown Mg-doped GaN and AlGaN materials. Journal of Applied Physics, 2020, 128, .	2.5	5
51	p-type conductivity in GaN:Zn monocrystals grown by ammonothermal method. Journal of Applied Physics, 2021, 129, .	2.5	5
52	DX centre in Si-doped Al _x Ga _{1-x} As: charge state and capture mechanism. Semiconductor Science and Technology, 1992, 7, 97-102.	2.0	4
53	Observation of quantum Hall effect in 2D-electron gas confined in GaN/GaN heterostructure. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 46, 92-95.	3.5	4
54	Shallow and deep donors in transport properties of N-implanted 6H-SiC. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 61-62, 301-304.	3.5	4

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55	Electrical Characterisation of Heavily Al Doped 4H-SiC Layer Grown by Vapour-Liquid-Solid Epitaxy in Al-Si Melt. Materials Science Forum, 2005, 483-485, 421-424.	0.3	4
56	Finite element modeling for temperature stabilization of gated Hall sensors. Journal of Applied Physics, 2008, 104, 053705.	2.5	4
57	Ballistic effects up to room temperature in microscopic Hall sensors. Journal of Applied Physics, 2009, 105, 074504.	2.5	4
58	Raman Investigation of Heavily Al Doped 4H-SiC Layers Grown by CVD. Materials Science Forum, 2014, 806, 51-55.	0.3	4
59	Electrical Properties of p-Type In-Situ Doped vs. Al-Implanted 4H-SiC. Materials Science Forum, 2005, 483-485, 401-404.	0.3	3
60	Transport measurements on InAs/GaSb superlattice structures for mid-infrared photodiode. Journal of Physics: Conference Series, 2009, 193, 012030.	0.4	3
61	Structural and Electrical Properties of Graphene Films Grown by Propane/Hydrogen CVD on 6H-SiC(0001). Materials Science Forum, 0, 717-720, 625-628.	0.3	3
62	Applications of Vapor-Liquid-Solid Selective Epitaxy of Highly p-Type Doped 4H-SiC: PiN Diodes with Peripheral Protection and Improvement of Specific Contact Resistance of Ohmic Contacts. Materials Science Forum, 0, 778-780, 639-644.	0.3	3
63	Midwave infrared InAs/GaSb superlattice photodiode with a dopant-free p-n junction. Infrared Physics and Technology, 2015, 70, 76-80.	2.9	3
64	Influence of Interface-Induced Disorder on Classical and Quantum Conductivity of CdTe:IN Epitaxial Layers. Acta Physica Polonica A, 1997, 92, 911-914.	0.5	3
65	Analysis of transport properties of \hat{I}^2 -SiC films: determination of donor density and compensation ratio. Diamond and Related Materials, 1997, 6, 1329-1332.	3.9	2
66	Impact of Annealing Temperature Ramps on the Electrical Activation of N ⁺ and P ⁺ Co-Implanted SiC Layers. Materials Science Forum, 2006, 527-529, 795-798.	0.3	2
67	High Temperature Annealing of MBE-grown Mg-doped GaN. Journal of Physics: Conference Series, 2017, 864, 012018.	0.4	2
68	Low Frequency Noise In n-Type Gallium Nitride. Materials Research Society Symposia Proceedings, 1998, 512, 21.	0.1	1
69	Pressure and Hall sensors: what does MBE allow to do?. Journal of Crystal Growth, 1999, 201-202, 727-733.	1.5	1
70	Technical aspects of \hat{C} 4H-SiC MOSFET processing. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 680-685.	1.8	1
71	Full wafer size investigation of N ⁺ and P ⁺ co-implanted layers in 4H-SiC. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 698-704.	1.8	1
72	Evaluation of p-Type Doping for (1,1,-2,0) Epitaxial Layers Grown on \hat{I} -Cut (1,1,-2,0) 4H-SiC Substrates. Materials Science Forum, 2005, 483-485, 117-120.	0.3	1

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73	Electrical transport phenomena in magnesium-doped p-type GaN. Physica Status Solidi (B): Basic Research, 2009, 246, 658-663.	1.5	1
74	Low Temperature Photoluminescence Investigation of 3-Inch SiC Wafers for Power Device Applications. Materials Science Forum, 0, 711, 164-168.	0.3	1
75	Pressure studies of multicarrier conduction in undoped InN grown on GaN buffer. Physica Status Solidi (B): Basic Research, 2013, 250, 746-749.	1.5	1
76	Emission energies of Si-DX centers in various AlGaAs microstructures. Journal of Physics and Chemistry of Solids, 1995, 56, 599-602.	4.0	0
77	High magnetic field studies of quantum transport and cyclotron resonance on 2D gas in GaN/GaN heterojunction. Physica B: Condensed Matter, 1998, 246-247, 274-277.	2.7	0
78	Transport Investigation of Low-Nitrogen-Doped 6H-SiC Ion-Implantation vs. In Situ Doping. Materials Science Forum, 2003, 433-436, 399-402.	0.3	0
79	Electrical Transport Properties of n-Type 4H and 6H Silicon Carbide. Materials Science Forum, 2004, 457-460, 555-560.	0.3	0
80	Electron transport properties of AlGaAs/GaAs heterostructure containing a d-doping in the quantum well. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 602-608.	1.8	0
81	Homogeneity of Nitrogen and Phosphorus Co-Implants in 4H-SiC: Full Wafer Scale Investigation. Materials Science Forum, 2005, 483-485, 645-648.	0.3	0
82	Performances analysis of symmetrical and asymmetrical InAs/GaSb superlattice pin photodiode. Proceedings of SPIE, 2011, , .	0.8	0
83	Magnetotransport studies of AlGaIn/GaN heterostructures with two-dimensional electron gas in parallel with a three-dimensional Al-graded layer: Incorrect hole type determination. Journal of Applied Physics, 2013, 114, 023704.	2.5	0
84	High Pressure Semiconductor Physics. Physica Status Solidi (B): Basic Research, 2013, 250, 668-668.	1.5	0
85	Improvement of the Specific Contact Resistance on P-Type 4H-SiC by Using a Highly P-Typed Doped 4H-SiC Layer Selectively Grown by VLS Transport. Materials Science Forum, 2014, 806, 57-60.	0.3	0
86	Study of Geometrical Effects in Charge Pumping Current for Lateral SiC nMOSFETs Electrical Characterization. Materials Science Forum, 0, 821-823, 717-720.	0.3	0
87	Optical investigations and strain effect in AlGaIn/GaN epitaxial layers. Journal of Physics: Conference Series, 2017, 864, 012021.	0.4	0
88	Investigation of 4H-SiC as a New Material for Hall or Temperature Sensors Working up to 500 Â°C. , 2001, , 986-989.		0
89	Toward the Reproducible Growth of Graphene on Wide SiC Steps: A Study of the Geometric Properties of 4H-SiC (0001) Substrates. Materials Science Forum, 0, 1062, 59-63.	0.3	0