

Aneesh Nainani

List of Publications by Year in descending order

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28
papers

888
citations

516710

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docs citations

28
times ranked

1144
citing authors

#	ARTICLE	IF	CITATIONS
1	Increase in current density for metal contacts to n-germanium by inserting TiO ₂ interfacial layer to reduce Schottky barrier height. Applied Physics Letters, 2011, 98, .	3.3	110
2	Fermi-level unpinning and low resistivity in contacts to n-type Ge with a thin ZnO interfacial layer. Applied Physics Letters, 2012, 101, .	3.3	90
3	Optimization of the $\text{Al}_2\text{O}_3/\text{GaSb}$ Interface and a High-Mobility GaSb pMOSFET. IEEE Transactions on Electron Devices, 2011, 58, 3407-3415.	3.0	89
4	Contact resistivity reduction through interfacial layer doping in metal-interfacial layer-semiconductor contacts. Journal of Applied Physics, 2013, 113, .	2.5	87
5	High-Mobility Ge N-MOSFETs and Mobility Degradation Mechanisms. IEEE Transactions on Electron Devices, 2011, 58, 59-66.	3.0	86
6	Impact of fixed charge on metal-insulator-semiconductor barrier height reduction. Applied Physics Letters, 2011, 99, .	3.3	54
7	Device quality Sb-based compound semiconductor surface: A comparative study of chemical cleaning. Journal of Applied Physics, 2011, 109, .	2.5	45
8	Fluorine passivation of vacancy defects in bulk germanium for Ge metal-oxide-semiconductor field-effect transistor application. Applied Physics Letters, 2012, 101, 072104.	3.3	41
9	Germanium oxynitride gate interlayer dielectric formed on Ge(100) using decoupled plasma nitridation. Applied Physics Letters, 2013, 103, 172107.	3.3	41
10	In _x Ga _{1-x} Sb channel p-metal-oxide-semiconductor field effect transistors: Effect of strain and heterostructure design. Journal of Applied Physics, 2011, 110, 014503.	2.5	37
11	Enhancing hole mobility in III-V semiconductors. Journal of Applied Physics, 2012, 111, .	2.5	37
12	Schottky barrier height reduction for metal/n-GaSb contact by inserting TiO ₂ interfacial layer with low tunneling resistance. Applied Physics Letters, 2011, 98, .	3.3	34
13	Antimonide-Based Heterostructure p-Channel MOSFETs With Ni-Alloy Source/Drain. IEEE Electron Device Letters, 2013, 34, 1367-1369.	3.9	29
14	High Performance 400 Å C p ⁺ /n Ge Junctions Using Cryogenic Boron Implantation. IEEE Electron Device Letters, 2014, 35, 717-719.	3.9	27
15	Study of piezoresistance under uniaxial stress for technologically relevant III-V semiconductors using wafer bending experiments. Applied Physics Letters, 2010, 96, 242110.	3.3	17
16	Performance Improvement of One-Transistor DRAM by Band Engineering. IEEE Electron Device Letters, 2012, 33, 29-31.	3.9	16
17	Hole Mobility and Its Enhancement with Strain for Technologically Relevant III-V Semiconductors. , 2009, , .		12
18	Amelioration of interface state response using band engineering in III-V quantum well metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2012, 100, .	3.3	9

#	ARTICLE	IF	CITATIONS
19	on-State Performance Enhancement and Channel-Direction-Dependent Performance of a Biaxial Compressive Strained $\text{Si}_{0.5}\text{Ge}_{0.5}$ Quantum-Well pMOSFET Along $\langle 110 \rangle$ and $\langle 100 \rangle$ Channel Directions. IEEE Transactions on Electron Devices, 2011, 58, 985-995.	3.0	5
20	Heterostructure design and demonstration of InGaSb channel III-V CMOS transistors. , 2011, , .		4
21	Optimal design of III-V heterostructure MOSFETs. , 2010, , .		3
22	Study of Shubnikov-de Haas oscillations and measurement of hole effective mass in compressively strained InGa X Sb quantum wells. Solid-State Electronics, 2011, 62, 138-141.	1.4	3
23	Addressing key challenges in 1T-DRAM: Retention time, scaling and variability ; Using a novel design with GaP source-drain. , 2013, , .		3
24	Electrical Characterization of GaP-Silicon Interface for Memory and Transistor Applications. IEEE Transactions on Electron Devices, 2013, 60, 2238-2245.	3.0	3
25	Enhancement of Phosphorus Dopant Activation and Diffusion Suppression by Fluorine Co-Implant in Epitaxially Grown Germanium. , 2012, , .		2
26	Effects of oxidant dosing on GaSb (100) prior to atomic layer deposition and high-performance antimonide-based P-channel MOSFETs with Ni-alloy S/D. , 2013, , .		2
27	Hole band anisotropy effect on ON-state performance of biaxial compressive strained SiGe-based short channel QW pMOSFETs: Experimental observations. , 2010, , .		1
28	Tight-binding study of Γ -L bandstructure engineering for ballistic III-V nMOSFETs. , 2011, , .		1