# Michel Houssa

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 341<br>papers | 10,520<br>citations | 44069<br>48<br>h-index | 43889<br>91<br>g-index |
| 348<br>all docs | 348<br>docs citations | 348<br>times ranked | 8408<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | On the elastic tensors of ultra-thin films: A study of ruthenium. Applied Surface Science, 2022, 592, 153194. | 6.1 | 1 |
| 2 | Origin of supertetragonality in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review Materials, 2022, 6, . | 2.4 | 4 |
| 3 | Doping-induced ferromagnetism in InSe and SnO monolayers. Journal of Computational Electronics, 2021, 20, 88-94. | 2.5 | 8 |
| 4 | Advanced DFTâ€“NEGF Transport Techniques for Novel 2-D Material and Device Exploration Including HfS<sub>2</sub>/WSe<sub>2</sub> van der Waals Heterojunction TFET and WTe<sub>2</sub>/WS<sub>2</sub> Metal/Semiconductor Contact. IEEE Transactions on Electron Devices, 2021, 68, 5372-5379. | 3.0 | 24 |
| 5 | Measurement of direct and indirect bandgaps in synthetic ultrathin MoS2 and WS2 films from photoconductivity spectra. Journal of Applied Physics, 2021, 129, . | 2.5 | 5 |
| 6 | Quarter-filled Kane-Mele Hubbard model: Dirac half metals. Physical Review B, 2021, 103, . | 3.2 | 7 |
| 7 | Internal photoemission of electrons from 2D semiconductor/3D metal barrier structures. Journal Physics D: Applied Physics, 2021, 54, 295101. | 2.8 | 1 |
| 8 | Role of Stronger Interlayer van der Waals Coupling in Twinâ€Free Molecular Beam Epitaxy of 2D Chalcogenides. Advanced Materials Interfaces, 2021, 8, 2100438. | 3.7 | 3 |
| 9 | Efficient Direct Band-Gap Transition in Germanium by Three-Dimensional Strain. ACS Applied Materials & Interfaces, 2021, 13, 30941-30949. | 8.0 | 14 |
| 10 | Two dimensional V2O3 and its experimental feasibility as robust room-temperature magnetic Chern insulator. Npj 2D Materials and Applications, 2021, 5, . | 7.9 | 7 |
| 11 | Tuning the spintronic properties of graphene with atomically precise Au clusters. JPhys Materials, 2021, 4, 045005. | 4.2 | 5 |
| 12 | Structural and electronic rearrangement in ovonic switching GexSe1-x(0,4Âą‰ÂxÂą‰Â0,72) films. Solid-State Electronics, 2021, 186, 108084. | 1.4 | 1 |
| 13 | Graphene based Van der Waals contacts on MoS<sub>2</sub> field effect transistors. 2D Materials, 2021, 8, 015003. | 4.4 | 15 |
| 14 | Strain and ferroelectricity in wurtzite ScxAl1âˆ’xN materials. Applied Physics Letters, 2021, 119, . | 3.3 | 11 |
| 15 | Ab-intio based electron-phonon scattering for 2D materials within the NEGF framework. , 2021, , . | | 0 |
| 16 | Electron-phonon scattering in cold-metal contacted two-dimensional semiconductor devices. , 2021, , . | | 3 |
| 17 | Two-dimensional gallium and indium oxides from global structure searching: Ferromagnetism and half metallicity via hole doping. Journal of Applied Physics, 2020, 128, 034304. | 2.5 | 12 |
| 18 | Contact resistance at 2D metal/semiconductor heterostructures. Frontiers of Nanoscience, 2020, 17, 127-140. | 0.6 | 0 |

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|---|---|---|---|
| 19 | Impact of Laâ€“OH bonds on the retention of Co/LaSiO CBRAM. Applied Physics Letters, 2020, 117, . | 3.3 | 4 |
| 20 | Band alignment at interfaces of two-dimensional materials: internal photoemission analysis. Journal of Physics Condensed Matter, 2020, 32, 413002. | 1.8 | 10 |
| 21 | Carrier-mediated ferromagnetism in two-dimensional PtS<sub>2</sub>. RSC Advances, 2020, 10, 952-957. | 3.6 | 7 |
| 22 | Analysis of Transferred MoS<sub>2</sub> Layers Grown by MOCVD: Evidence of Mo Vacancy Related Defect Formation. ECS Journal of Solid State Science and Technology, 2020, 9, 093001. | 1.8 | 9 |
| 23 | First-Principles Study of the Contact Resistance at 2D Metal/2D Semiconductor Heterojunctions. Applied Sciences (Switzerland), 2020, 10, 2731. | 2.5 | 7 |
| 24 | On the van der Waals Epitaxy of Homo-/Heterostructures of Transition Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2020, 12, 27508-27517. | 8.0 | 22 |
| 25 | Fundamental limitation of van der Waals homoepitaxy by stacking fault formation in WSe<sub>2</sub>. 2D Materials, 2020, 7, 025027. | 4.4 | 11 |
| 26 | Ferromagnetism and half-metallicity in two-dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>M</mml:mi><mml:mi mathvariant="normal">O</mml:mi><mml:mo>Â</mml:mo><mml:mo>(</mml:mo><mml:mi>M</mml:mi><mml:mo>=</mml:mo><mml:mo><mml:mi monolayers induced by hole doping. Physical Review Materials, 2020, 4, . | 2.4 | 15 |
| 27 | Energy Band Alignment of Few-Monolayer WS<sub>2</sub> and WSe<sub>2</sub> with SiO<sub>2</sub> Using Internal Photoemission Spectroscopy. ECS Journal of Solid State Science and Technology, 2020, 9, 093009. | 1.8 | 4 |
| 28 | Key material parameters driving CBRAM device performances. Faraday Discussions, 2019, 213, 67-85. | 3.2 | 12 |
| 29 | Improving Post-Cycling Low Resistance State Retention in Resistive RAM With Combined Oxygen Vacancy and Copper Filament. IEEE Electron Device Letters, 2019, 40, 1072-1075. | 3.9 | 4 |
| 30 | Contact Resistance at MoS<sub>2</sub>-Based 2D Metal/Semiconductor Lateral Heterojunctions. ACS Applied Nano Materials, 2019, 2, 760-766. | 5.0 | 19 |
| 31 | (Invited) Stoner Ferromagnetism in Two-Dimensional Materials. ECS Transactions, 2019, 92, 35-41. | 0.5 | 2 |
| 32 | A systematic study of various 2D materials in the light of defect formation and oxidation. Physical Chemistry Chemical Physics, 2019, 21, 1089-1099. | 2.8 | 17 |
| 33 | Evaluation of the effective work-function of monolayer graphene on silicon dioxide by internal photoemission spectroscopy. Thin Solid Films, 2019, 674, 39-43. | 1.8 | 7 |
| 34 | Energy Band Alignment of a Monolayer MoS 2 with SiO 2 and Al 2 O 3 Insulators from Internal Photoemission. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800616. | 1.8 | 11 |
| 35 | Determination of energy thresholds of electron excitations at semiconductor/insulator interfaces using trap-related displacement currents. Microelectronic Engineering, 2019, 215, 110992. | 2.4 | 3 |
| 36 | Contact resistance at graphene/MoS2 lateral heterostructures. Applied Physics Letters, 2019, 114, . | 3.3 | 14 |

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| 37 | Impacts of Ta Buffer Layer and Cuâ€“Geâ€“Te Composition on the Reliability of GeSe-Based CBRAM. IEEE Transactions on Electron Devices, 2019, 66, 5133-5138. | 3.0 | 4 |
| 38 | Impact of MoS<sub>2</sub> layer transfer on electrostatics of MoS<sub>2</sub>/SiO<sub>2</sub> interface. Nanotechnology, 2019, 30, 055702. | 2.6 | 11 |
| 39 | Silicene on non-metallic substrates: Recent theoretical and experimental advances. Nano Research, 2018, 11, 1169-1182. | 10.4 | 31 |
| 40 | Internal Photoemission Metrology of Inhomogeneous Interface Barriers. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700865. | 1.8 | 14 |
| 41 | Band alignment at interfaces of synthetic few-monolayer MoS2 with SiO2 from internal photoemission. APL Materials, 2018, 6, . | 5.1 | 17 |
| 42 | Synthesis of Silicene on Alternative Substrates. Nanoscience and Technology, 2018, , 197-209. | 1.5 | 0 |
| 43 | Hole-Doped 2D InSe for Spintronic Applications. ACS Applied Nano Materials, 2018, 1, 6656-6665. | 5.0 | 41 |
| 44 | Ferromagnetism in two-dimensional hole-doped SnO. AIP Advances, 2018, 8, . | 1.3 | 22 |
| 45 | Study of the Intrinsic Limitations of the Contact Resistance of Metal/Semiconductor Interfaces through Atomistic Simulations. ECS Journal of Solid State Science and Technology, 2018, 7, N73-N80. | 1.8 | 12 |
| 46 | On the Key Impact of Composition of Ge-Te and Ge-Se Electrolytes on CBRAM Properties. , 2018, , . | | 1 |
| 47 | Predicting 2D silicon allotropes on SnS2. Nano Research, 2017, 10, 1697-1709. | 10.4 | 10 |
| 48 | On the electrostatic control achieved in transistors based on multilayered MoS2: A first-principles study. Journal of Applied Physics, 2017, 121, . | 2.5 | 18 |
| 49 | Buckled two-dimensional Xene sheets. Nature Materials, 2017, 16, 163-169. | 27.5 | 641 |
| 50 | Toward an Understanding of the Electric Field-Induced Electrostatic Doping in van der Waals Heterostructures: A First-Principles Study. ACS Applied Materials & Interfaces, 2017, 9, 7725-7734. | 8.0 | 20 |
| 51 | Point defects in MoS 2 : Comparison between first-principles simulations and electron spin resonance experiments. Applied Surface Science, 2017, 416, 853-857. | 6.1 | 15 |
| 52 | Intrinsic point defects in buckled and puckered arsenene: a first-principles study. Physical Chemistry Chemical Physics, 2017, 19, 9862-9871. | 2.8 | 38 |
| 53 | (Invited) Internal Photoemission of Electrons from 2-Dimensional Semiconductors. ECS Transactions, 2017, 80, 191-201. | 0.5 | 12 |
| 54 | Hole-Doping Induced Ferromagnetism in Monolayer SnO: A First-Principles Study. ECS Transactions, 2017, 80, 339-345. | 0.5 | 7 |

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| 55 | Impact of Layer Alignment on the Behavior of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Tunnel Field-Effect Transistors: An AbÂInitio Study. Physical Review Applied, 2017, 8, . | 3.8 | 16 |
| 56 | Structural characterization of SnS crystals formed by chemical vapour deposition. Journal of Microscopy, 2017, 268, 276-287. | 1.8 | 12 |
| 57 | (Invited) Probing the Intrinsic Limitations of the Contact Resistance of Metal/Semiconductor Interfaces through Atomistic Simulations. ECS Transactions, 2017, 80, 303-311. | 0.5 | 2 |
| 58 | The lead acceptor in p-type natural 2H-polytype MoS<sub>2</sub> crystals evidenced by electron paramagnetic resonance. Journal of Physics Condensed Matter, 2017, 29, 08LT01. | 1.8 | 10 |
| 59 | (Invited) Probing Dopants in 2H MoS2Crystals and 2D Layers by Electron Paramagnetic Resonance: Identification and Quantification. ECS Transactions, 2017, 80, 177-189. | 0.5 | 0 |
| 60 | Excellent R<sub>off</sub>/R<sub>on</sub> ratio and short programming time in Cu/Al<sub>2</sub>O<sub>3</sub>â€based conductiveâ€bridging RAM under lowâ€current (10â€‰Î¼A) operation. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 302-305. | 1.8 | 13 |
| 61 | Electron energy distribution in Si/TiN and Si/Ru hybrid floating gates with hafnium oxide based insulators for charge trapping memory devices. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 265-269. | 1.8 | 1 |
| 62 | Origin of the performances degradation of two-dimensional-based metal-oxide-semiconductor field effect transistors in the sub-10â€‰nm regime: A first-principles study. Applied Physics Letters, 2016, 108, . | 3.3 | 5 |
| 63 | Intrinsic electron traps in atomic-layer deposited HfO2 insulators. Applied Physics Letters, 2016, 108, . | 3.3 | 44 |
| 64 | Auger electron spectroscopy study of semiconductor surfaces: Effect of cleaning in inert atmosphere. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, 041227. | 1.2 | 7 |
| 65 | Band offsets and trap-related electron transitions at interfaces of (100)InAs with atomic-layer deposited Al2O3. Journal of Applied Physics, 2016, 120, 235701. | 2.5 | 5 |
| 66 | Impact of Point Defects and Oxidation on the Electronic Properties of HfS<sub>2</sub>Monolayers. ECS Journal of Solid State Science and Technology, 2016, 5, Q3054-Q3059. | 1.8 | 10 |
| 67 | Silicene nanoribbons on transition metal dichalcogenide substrates: Effects on electronic structure and ballistic transport. Nano Research, 2016, 9, 3394-3406. | 10.4 | 8 |
| 68 | Impact of temperature and programming method on the data retention of Cu/Al 2 O 3 -based conductive-bridge RAM operated at low-current (10 Î¼A). Solid-State Electronics, 2016, 125, 189-197. | 1.4 | 8 |
| 69 | Oxygen and hydroxyl adsorption on MS<sub>2</sub> (M = Mo, W, Hf) monolayers: a firstâ€principles molecular dynamics study. Physica Status Solidi - Rapid Research Letters, 2016, 10, 787-791. | 2.4 | 7 |
| 70 | Hydrogen induced dipole at the Pt/oxide interface in MOS devices. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 260-264. | 1.8 | 5 |
| 71 | Impact of point defects on the electronic and transport properties of silicene nanoribbons. Journal of Physics Condensed Matter, 2016, 28, 035302. | 1.8 | 25 |
| 72 | Topological to trivial insulating phase transition in stanene. Nano Research, 2016, 9, 774-778. | 10.4 | 32 |

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|---|---|---|---|
| 73 | Interaction Between Silicene and Non-metallic Surfaces. Springer Series in Materials Science, 2016, , 129-140. | 0.6 | 1 |
| 74 | Functional silicene and stanene nanoribbons compared to graphene: electronic structure and transport. 2D Materials, 2016, 3, 015001. | 4.4 | 18 |
| 75 | First-principles investigation of defects at GaAs/oxide interfaces. Materials Science in Semiconductor Processing, 2016, 42, 239-241. | 4.0 | 1 |
| 76 | Collapse of the low temperature insulating state in Cr-doped V2O3 thin films. Applied Physics Letters, 2015, 107, . | 3.3 | 14 |
| 77 | Interaction of silicene and germanene with non-metallic substrates. Journal of Physics: Conference Series, 2015, 574, 012015. | 0.4 | 5 |
| 78 | Silicene: a review of recent experimental and theoretical investigations. Journal of Physics Condensed Matter, 2015, 27, 253002. | 1.8 | 180 |
| 79 | Analysis of the Excellent Memory Disturb Characteristics of a Hourglass-Shaped Filament in Al<sub>2</sub>O<sub>3</sub>/Cu-Based CBRAM Devices. IEEE Transactions on Electron Devices, 2015, 62, 2007-2013. | 3.0 | 26 |
| 80 | Optimization of the write algorithm at low-current (10μA) in Cu/Al<inf>2</inf>O<inf>3</inf>-based conductive-bridge RAM. , 2015, , . | | 4 |
| 81 | Operating-Current Dependence of the Cu-Mobility Requirements in Oxide-Based Conductive-Bridge RAM. IEEE Electron Device Letters, 2015, 36, 775-777. | 3.9 | 30 |
| 82 | Fast and Stable Sub-10uA Pulse Operation in W/SiO2/Ta/Cu 90nm 1T1R CBRAM Devices. , 2015, , . | | 4 |
| 83 | Band alignment at interfaces of few-monolayer MoS2 with SiO2 and HfO2. Microelectronic Engineering, 2015, 147, 294-297. | 2.4 | 31 |
| 84 | (Invited) Spectroscopy of Deep Gap States in High-ƙ Insulators. ECS Transactions, 2014, 64, 17-22. | 0.5 | 16 |
| 85 | Band alignment at interfaces of amorphous Al2O3 with Ge1â^'xSnx- and strained Ge-based channels. Applied Physics Letters, 2014, 104, 202107. | 3.3 | 4 |
| 86 | Engineering the electronic properties of silicene by tuning the composition of MoX <sub>2</sub> and GaX (X = S,Se,Te) chalchogenide templates. 2D Materials, 2014, 1, 011010. | 4.4 | 53 |
| 87 | Origin of the deep reset and low variability of pulse-programmed WAl<inf>2</inf>O<inf>3</inf>TiWCu CBRAM device. , 2014, , . | | 6 |
| 88 | Current-voltage characteristics of armchair Sn nanoribbons. Physica Status Solidi - Rapid Research Letters, 2014, 8, 931-934. | 2.4 | 12 |
| 89 | First-principles study of strained 2D MoS2. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 56, 416-421. | 2.7 | 119 |
| 90 | Twoâ€Đimensional Si Nanosheets with Local Hexagonal Structure on a MoS<sub>2</sub> Surface. Advanced Materials, 2014, 26, 2096-2101. | 21.0 | 311 |

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|---|---|---|---|
| 91 | Modulation of electron barriers between Ti<scp>N</scp><sub>x</sub> and oxide insulators (<scp>S</scp>i<scp>O</scp><sub>2</sub>, Al<sub>2</sub><scp>O</scp><sub>3</sub>) using Ti interlayer. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 382-388. | 1.8 | 4 |
| 92 | (Invited) Interaction of Silicene and Germanene with Non-Metallic Substrates. ECS Transactions, 2014, 64, 111-119. | 0.5 | 1 |
| 93 | Influence of metal electrode stoichiometry on the electron barrier height at CuxTe1â^'x/Al2O3 interfaces for CBRAM applications. Microelectronic Engineering, 2014, 120, 9-12. | 2.4 | 3 |
| 94 | Two-dimensional hexagonal tin: ab initio geometry, stability, electronic structure and functionalization. 2D Materials, 2014, 1, 021004. | 4.4 | 107 |
| 95 | Origin of the current discretization in deep reset states of an Al2O3/Cu-based conductive-bridging memory, and impact on state level and variability. Applied Physics Letters, 2014, 104, . | 3.3 | 33 |
| 96 | Vibrational properties of epitaxial silicene layers on (111) Ag. Applied Surface Science, 2014, 291, 113-117. | 6.1 | 49 |
| 97 | Theoretical aspects of graphene-like group IV semiconductors. Applied Surface Science, 2014, 291, 98-103. | 6.1 | 23 |
| 98 | First-principles electronic functionalization of silicene and germanene by adatom chemisorption. Applied Surface Science, 2014, 291, 104-108. | 6.1 | 69 |
| 99 | Charge Properties of Paramagnetic Defects in Semiconductor/Oxide Structures. , 2014, , 229-252. | | 1 |
| 100 | Nature of the filament formed in HfO2-based resistive random access memory. Thin Solid Films, 2013, 533, 15-18. | 1.8 | 28 |
| 101 | Getting through the Nature of Silicene: An sp<sup>2</sup>â€“sp<sup>3</sup> Two-Dimensional Silicon Nanosheet. Journal of Physical Chemistry C, 2013, 117, 16719-16724. | 3.1 | 163 |
| 102 | (Invited) Theoretical Study of Silicene and Germanene. ECS Transactions, 2013, 53, 51-62. | 0.5 | 9 |
| 103 | A Thermally Stable and High-Performance 90-nm ${m Al}_{2}{m O}_{3}ackslash{m Cu}$-Based 1T1R CBRAM Cell. IEEE Transactions on Electron Devices, 2013, 60, 3690-3695. | 3.0 | 80 |
| 104 | 90nm WAl<inf>2</inf>O<inf>3</inf>TiWCu 1T1R CBRAM cell showing low-power, fast and disturb-free operation. , 2013, , . | | 18 |
| 105 | Electron spin resonance analysis of sputtering-induced defects in advanced low-Î¤ insulators (Î¤=2.0â€“2.5). Microelectronic Engineering, 2013, 109, 240-243. | 2.4 | 0 |
| 106 | Electron barrier height at CuxTe1â^'x/Al2O3 interfaces of conducting bridge memory stacks. Thin Solid Films, 2013, 533, 34-37. | 1.8 | 9 |
| 107 | Control of metal/oxide electron barriers in CBRAM cells by low work-function liners. Microelectronic Engineering, 2013, 109, 156-159. | 2.4 | 15 |
| 108 | Vibrational properties of silicene and germanene. Nano Research, 2013, 6, 19-28. | 10.4 | 144 |

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|---|---|---|---|
| 109 | High-resolution electron spin resonance analysis of ion bombardment induced defects in advanced low-Î¤ insulators (Î¤â€‰=â€‰2.0-2.5). Applied Physics Letters, 2013, 102, . | 3.3 | 15 |
| 110 | An electric field tunable energy band gap at silicene/(0001) ZnS interfaces. Physical Chemistry Chemical Physics, 2013, 15, 3702. | 2.8 | 86 |
| 111 | Liquid-Phase Adsorption of Sulfur on Germanium: Reaction Mechanism and Atomic Geometry. Journal of Physical Chemistry C, 2013, 117, 7451-7458. | 3.1 | 6 |
| 112 | (Invited) Optimization of WAl2O3Cu(-Te) Material Stack for High-Performance Conductive-Bridging Memory Cells. ECS Transactions, 2013, 58, 175-180. | 0.5 | 1 |
| 113 | (Invited) Electron Band Alignment at Ge/Oxide and AIII-BV/Oxide Interfaces from Internal Photoemission Experiments. ECS Transactions, 2013, 58, 311-316. | 0.5 | 2 |
| 114 | Oxidation and Sulfidation of Germanium Surfaces: A Comparative Atomic Level Study of Different Passivation Schemes. ECS Transactions, 2013, 50, 569-579. | 0.5 | 2 |
| 115 | Interaction of Germanene with (0001)ZnSe Surfaces: A Theoretical Study. ECS Transactions, 2013, 58, 209-215. | 0.5 | 1 |
| 116 | (Invited) Structural and Chemical Stabilization of the Epitaxial Silicene. ECS Transactions, 2013, 58, 217-227. | 0.5 | 5 |
| 117 | High Mobility Channels. Springer Series in Advanced Microelectronics, 2013, , 425-457. | 0.3 | 1 |
| 118 | Electron band alignment at the interface of (100)InSb with atomic-layer deposited Al<sub>2</sub>O<sub>3</sub>. Applied Physics Letters, 2012, 101, 082114. | 3.3 | 11 |
| 119 | Noninvasive embedding of single Co atoms in Ge(111)2â€‰<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mo>Ã—</mml:mo></mml:math>â€‰1 surfaces. Physical Review B, 2012, 85, . | 3.2 | 13 |
| 120 | Charge instability of atomic-layer deposited TaSiOxinsulators on Si, InP, and In0.53Ga0.47As. Applied Physics Letters, 2012, 100, 202104. | 3.3 | 6 |
| 121 | Oxidation of the GaAs(001) surface: Insights from first-principles calculations. Physical Review B, 2012, 85, . | 3.2 | 18 |
| 122 | Challenges for introducing Ge and III/V devices into CMOS technologies. , 2012, , . | | 4 |
| 123 | Internal Photoemission at Interaces of ALD TaiOxInsulating Layers Deposited on Si, InP and In0.53Ga0.47As. IOP Conference Series: Materials Science and Engineering, 2012, 41, 012019. | 0.6 | 1 |
| 124 | Interface barriers at the interfaces of polar GaAs(111) faces with Al2O3. Applied Physics Letters, 2012, 100, . | 3.3 | 9 |
| 125 | Semiconducting-like filament formation in TiN/HfO2/TiN resistive switching random access memories. Applied Physics Letters, 2012, 100, . | 3.3 | 43 |
| 126 | Strain-induced semiconductor to metal transition in the two-dimensional honeycomb structure of MoS2. Nano Research, 2012, 5, 43-48. | 10.4 | 620 |

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| 127 | Transitivity of band offsets between semiconductor heterojunctions and oxide insulators. Applied Physics Letters, 2011, 99, . | 3.3 | 20 |
| 128 | Advancing CMOS beyond the Si roadmap with Ge and III/V devices. , 2011, , . | | 43 |
| 129 | Inelastic electron tunneling spectroscopy of HfO2 gate stacks: A study based on first-principles modeling. Applied Physics Letters, 2011, 99, 132101. | 3.3 | 0 |
| 130 | Electronic properties of hydrogenated silicene and germanene. Applied Physics Letters, 2011, 98, . | 3.3 | 399 |
| 131 | Universal stress-defect correlation at (100)semiconductor/oxide interfaces. Applied Physics Letters, 2011, 98, 141901. | 3.3 | 10 |
| 132 | Electronic Properties of Silicene: Insights from First-Principles Modeling. Journal of the Electrochemical Society, 2011, 158, H107. | 2.9 | 42 |
| 133 | Band Alignment at Interfaces of Oxide Insulators with Semiconductors. Integrated Ferroelectrics, 2011, 125, 53-60. | 0.7 | 5 |
| 134 | Experimental and theoretical investigation of defects at (100) Si1â^'xGex/oxide interfaces. Microelectronic Engineering, 2011, 88, 383-387. | 2.4 | 3 |
| 135 | First-principles study of Ge dangling bonds in GeO2 and correlation with electron spin resonance at Ge/GeO2 interfaces. Applied Physics Letters, 2011, 99, . | 3.3 | 11 |
| 136 | Influence of Al<sub>2</sub>O<sub>3</sub> crystallization on band offsets at interfaces with Si and TiN<sub>x</sub>. Applied Physics Letters, 2011, 99, 072103. | 3.3 | 50 |
| 137 | Structural and vibrational properties of amorphous GeO2 from first-principles. Applied Physics Letters, 2011, 98, . | 3.3 | 6 |
| 138 | Electronic structure of NiO layers grown on Al2O3 and SiO2 using metallo-organic chemical vapour deposition. Journal of Applied Physics, 2011, 110, . | 2.5 | 4 |
| 139 | Self-Affine Surface Roughness of Chemically and Thermally Cleaned Ge(100) Surfaces. Journal of the Electrochemical Society, 2011, 158, H1090. | 2.9 | 5 |
| 140 | Theoretical Study of Ge Dangling Bonds in GeO<sub>2</sub> and Correlation with ESR Results at Ge/GeO<sub>2</sub> Interfaces. ECS Transactions, 2011, 41, 39-45. | 0.5 | 1 |
| 141 | Electron States at Interfaces of Semiconductors and Metals with Insulating Films. ECS Transactions, 2011, 34, 467-472. | 0.5 | 1 |
| 142 | Shaping the future of nanoelectronics beyond the Si roadmap with new materials and devices. Proceedings of SPIE, 2010, , . | 0.8 | 2 |
| 143 | Electron energy band alignment at the NiO/SiO2 interface. Applied Physics Letters, 2010, 96, . | 3.3 | 7 |
| 144 | High FET Performance for a Future CMOS $hbox{GeO}_{2}$ -Based Technology. IEEE Electron Device Letters, 2010, 31, 402-404. | 3.9 | 50 |

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|---|---|---|---|
| 145 | Electronic Properties of Silicene: Insights from First-Principles Modelling. ECS Transactions, 2010, 33, 185-193. | 0.5 | 7 |
| 146 | Can silicon behave like graphene? A first-principles study. Applied Physics Letters, 2010, 97, . | 3.3 | 208 |
| 147 | Electronic properties of two-dimensional hexagonal germanium. Applied Physics Letters, 2010, 96, . | 3.3 | 114 |
| 148 | Energy band-alignment of a multimetal-layer gated metal-oxide-semiconductor structure. Applied Physics Letters, 2009, 95, . | 3.3 | 6 |
| 149 | A theoretical study of the initial oxidation of the GaAs(001)-Î²2(2Ã—4) surface. Applied Physics Letters, 2009, 95, . | 3.3 | 31 |
| 150 | Ge and III/V devices for advanced CMOS. , 2009, , . | | 3 |
| 151 | Positive and negative bias temperature instability in La<inf>2</inf>O<inf>3</inf> and Al<inf>2</inf>O<inf>3</inf> capped high-k MOSFETs. , 2009, , . | | 4 |
| 152 | Extrinsic interface formation of HfO2 and Al2O3âˆ•GeOx gate stacks on Ge (100) substrates. Journal of Applied Physics, 2009, 106, . | 2.5 | 18 |
| 153 | Progress Towards Passivation of High-Mobility Channels. ECS Transactions, 2009, 25, 249-263. | 0.5 | 0 |
| 154 | Molecular Beam Epitaxy study of a common a-GeO2 interfacial passivation layer for Ge- and GaAs-based MOS heterostructures. Materials Research Society Symposia Proceedings, 2009, 1155, 1. | 0.1 | 2 |
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