

Deng-Sung Lin

List of Publications by Year in descending order

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82
papers

1,350
citations

304743

22
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395702

33
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82
all docs

82
docs citations

82
times ranked

1450
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Large quantum-spin-Hall gap in single-layer 1Tâ€² WSe2. Nature Communications, 2018, 9, 2003. | 12.8 | 117 |
| 2 | Scanning-tunneling-microscopy studies of disilane adsorption and pyrolytic growth on Si(100)-(2x1). Physical Review B, 1992, 45, 3494-3498. | 3.2 | 74 |
| 3 | Charge transfer and asymmetry on Ge(111)-c(2Å—8) studied by scanning tunneling microscopy. Physical Review B, 1991, 44, 1403-1406. | 3.2 | 71 |
| 4 | Thermal reactions of phosphine with Si(100): a combined photoemission and scanning-tunneling-microscopy study. Surface Science, 1999, 424, 7-18. | 1.9 | 65 |
| 5 | Dimer charge asymmetry determined by photoemission from epitaxial Ge on Si(100)-(2Å—1). Physical Review Letters, 1991, 67, 2187-2190. | 7.8 | 56 |
| 6 | X-ray scattering study of Ag/Si(111) buried interface structures. Physical Review Letters, 1992, 68, 507-510. | 7.8 | 50 |
| 7 | Holography of Ge(111)âˆ—c(2Å—8) by Surface Core-Level Photoemission. Physical Review Letters, 1994, 73, 3117-3120. | 7.8 | 40 |
| 8 | Atomistics of Ge Deposition on Si(100) by Atomic Layer Epitaxy. Physical Review Letters, 2003, 90, 046102. | 7.8 | 39 |
| 9 | Adsorption and thermal reactions of disilane and the growth of Si films on Ge(100)-(2Å—1). Physical Review B, 1993, 47, 6543-6554. | 3.2 | 34 |
| 10 | Boundary-structure determination of Ag/Si(111) interfaces by x-ray diffraction. Physical Review B, 1995, 52, 1839-1847. | 3.2 | 34 |
| 11 | Heterojunction confinement on the atomic structure evolution of near monolayer coreâ€“shell nanocatalysts in redox reactions of a direct methanol fuel cell. Journal of Materials Chemistry A, 2015, 3, 1518-1529. | 10.3 | 34 |
| 12 | Adsorption and dissociation of Si2H6 on Ge(001)2 Å— 1. Surface Science, 1993, 280, 265-276. | 1.9 | 32 |
| 13 | Interaction of phosphine with Si(100) from core-level photoemission and real-time scanning tunneling microscopy. Physical Review B, 2000, 61, 2799-2805. | 3.2 | 31 |
| 14 | Tunable electronic structure and surface states in rare-earth monobismuthides with partially filled $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML">\langle \text{mml:mi}>f\langle /mml:mi>\langle /mml:math}$ shell. Physical Review B, 2018, 98, . | 3.2 | 31 |
| 15 | C60encapsulation of the Si(111)â€“c(7Å—7) surface. Applied Physics Letters, 1992, 61, 3127-3129. | 3.3 | 29 |
| 16 | Growth process of Ge on Si(100)-(2Å—1) in atomic-layer epitaxy from Ge2H6. Physical Review B, 1997, 56, 4878-4886. | 3.2 | 28 |
| 17 | Si indiffusion on Ge(100)-(2Å—1) studied by core-level photoemission. Physical Review B, 1992, 45, 11415-11418. | 3.2 | 27 |
| 18 | Hydrogen-desorption kinetic measurement on the Si(100)-2Å—1:H surface by directly counting desorption sites. Physical Review B, 1999, 60, R8461-R8464. | 3.2 | 26 |

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|----|--|-----|-----------|
| 19 | Surface segregation and growth mode transitions during the initial stages of Si growth on Ge(001) $2\text{Å}-1$ by cyclic gas-source molecular beam epitaxy from Si ₂ H ₆ . Journal of Applied Physics, 1994, 75, 240-247. | 2.5 | 25 |
| 20 | Atomic burrowing and hole formation for Au growth on Ag(110). Surface Science, 1995, 323, L299-L304. | 1.9 | 25 |
| 21 | Bonding of Cs on Si and Ge surfaces studied by core-level spectroscopy. Physical Review B, 1991, 44, 10719-10723. | 3.2 | 24 |
| 22 | Calorimetric and optical microscopic studies on one ferroelectric liquid-crystal compound with the smectic-A phase. Physical Review A, 1989, 40, 4153-4156. | 2.5 | 23 |
| 23 | Influence of Sapphire Nitridation on Properties of Indium Nitride Prepared by Metalorganic Vapor Phase Epitaxy. Japanese Journal of Applied Physics, 1999, 38, 645-648. | 1.5 | 22 |
| 24 | Growth of a predicted two-dimensional topological insulator based on InBi-Si(111)- $\sqrt{2}\text{Å}\times\sqrt{2}\text{Å}$ surface. Physical Review B, 2018, 98, . | 1.9 | 22 |
| 25 | Comparison of thermal reactions of phosphine on Ge(1 0 0) and Si(1 0 0) by high-resolution core-level photoemission. Surface Science, 2001, 482-485, 654-658. | 1.9 | 18 |
| 26 | Hard repulsive barrier in hot adatom motion during dissociative adsorption of oxygen on Ag(100). Journal of Chemical Physics, 2009, 131, 174709. | 3.0 | 17 |
| 27 | Growth mode in Si(100) $\sqrt{2}\text{Å}\times\sqrt{2}\text{Å}$ epitaxy by low-temperature chemical-vapor deposition. Physical Review B, 1998, 57, 12421-12427. | 3.2 | 16 |
| 28 | Lin et al. reply. Physical Review Letters, 1992, 69, 552-553. | 7.8 | 13 |
| 29 | Real-time scanning tunneling microscopy observation of Si(100) $\sqrt{2}\text{Å}\times\sqrt{2}\text{Å}$ structural phase transitions. Surface Science, 1998, 397, L273-L279. | 1.9 | 13 |
| 30 | Few-Layer Silicon Films on the Ag(111) Surface. Journal of Physical Chemistry C, 2016, 120, 2698-2702. | 3.1 | 13 |
| 31 | Thermal reactions of disilane on Si(100) studied by synchrotron-radiation photoemission. Physical Review B, 1993, 48, 11846-11850. | 3.2 | 12 |
| 32 | Coverage-dependent thermal reactions of digermane on Si(100)- $\sqrt{2}\text{Å}\times\sqrt{2}\text{Å}$. Physical Review B, 1996, 54, 16958-16964. | 3.2 | 12 |
| 33 | Atomistic View of the Recombinative Desorption of H ₂ from H/Si(100). Physical Review Letters, 2005, 94, 196103. | 7.8 | 12 |
| 34 | Ion Segregation and Deliquescence of Alkali Halide Nanocrystals on SiO ₂ . Journal of Physical Chemistry A, 2009, 113, 9715-9720. | 2.5 | 12 |
| 35 | Growth mode and structures of silicene on the Ag(111) surface. Applied Surface Science, 2015, 354, 187-195. | 6.1 | 12 |
| 36 | Mediation of chain reactions by propagating radicals during halogenation of H-masked Si(100): Implications for atomic-scale lithography and processing. Journal of Chemical Physics, 2009, 130, 164706. | 3.0 | 11 |

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|----|---|-----|-----------|
| 37 | Chlorine-induced Si surface segregation on the Ge-terminated Si/Ge(100) surface from core-level photoemission. <i>Physical Review B</i> , 2001, 64, . | 3.2 | 10 |
| 38 | Adsorption and abstraction reactions of HCl on a single Si(100) dangling bond. <i>Physical Review B</i> , 2011, 83, . | 3.2 | 10 |
| 39 | Gold atomic clusters extracting the valence electrons to shield the carbon monoxide passivation on near-monolayer core-shell nanocatalysts in methanol oxidation reactions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 15131-15139. | 2.8 | 10 |
| 40 | Growth and atomic structure of epitaxial Si films on Ge(111). <i>Surface Science</i> , 1994, 312, 213-220. | 1.9 | 9 |
| 41 | Scanning tunneling microscopy observation of surface reconstruction of Si(100) during chemical vapor deposition from Si ₂ H ₆ . <i>Surface Science</i> , 1998, 402-404, 831-835. | 1.9 | 9 |
| 42 | Determination of dissociative fragment-adsorbate interaction energy during chemisorption of the diatomic molecule HCl on Si(100). <i>Physical Review B</i> , 2010, 81, . | 3.2 | 9 |
| 43 | Gallium K-edge x-ray absorption study on Mg-doped GaN. <i>Applied Physics Letters</i> , 2001, 78, 31-33. | 3.3 | 8 |
| 44 | Possibility of direct exchange diffusion of hydrogen on the SiCl surface. <i>Physical Review B</i> , 2009, 80, . | 3.2 | 8 |
| 45 | Atomic and electronic structures of thin NaCl films grown on a Ge(001) surface. <i>Surface Science</i> , 2009, 603, 2102-2107. | 1.9 | 8 |
| 46 | Energetics and Interactions of Mixed Halogen Adsorbates on the Si(100) Surface. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13268-13274. | 3.1 | 8 |
| 47 | Sodium chloride on Si(100) grown by molecular beam epitaxy. <i>Physical Review B</i> , 2011, 83, . | 3.2 | 8 |
| 48 | Iodine Adsorption on Arrays, Clusters, and Pairs of Reactive Sites on the Si(100) Surface. <i>Journal of Physical Chemistry C</i> , 2012, 116, 3091-3096. | 3.1 | 8 |
| 49 | Apparent Topographic Height Variations Measured by Noncontact Atomic Force Microscopy. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 4395-4402. | 1.5 | 7 |
| 50 | Growth mode and novel structure of ultra-thin KCl layers on the Si(100)- $\sqrt{3}\times\sqrt{3}$ surface. <i>Surface Science</i> , 2009, 603, 419-424. | 1.9 | 7 |
| 51 | Atomic and Electronic Processes during the Formation of an Ionic NaCl Monolayer on a Covalent Si(100) Surface. <i>Journal of Physical Chemistry C</i> , 2012, 116, 11526-11538. | 3.1 | 7 |
| 52 | Separation of the attractive and repulsive contributions to the adsorbate-adsorbate interactions of polar adsorbates on Si(100). <i>Surface Science</i> , 2015, 641, 282-288. | 1.9 | 7 |
| 53 | Orbital-enhanced warping effect in px,py-derived Rashba spin splitting of monatomic bismuth surface alloy. <i>Npj Quantum Materials</i> , 2020, 5, . | 5.2 | 7 |
| 54 | Formation, Binding, and Stability of O-Ag-CO ₂ -Ag-O Compounds on Ag(100) Investigated by Low Temperature Scanning Tunneling Microscopy and Manipulation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 14173-14179. | 3.1 | 6 |

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|----|--|-----|-----------|
| 55 | Adsorption of Diatomic Interhalogens on the Si(100) and Ge(100) Surfaces. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13262-13267. | 3.1 | 6 |
| 56 | Bonding and interface formation for Si on Ag(111) by core-level photoemission spectroscopy. <i>Applied Surface Science</i> , 2015, 354, 212-215. | 6.1 | 6 |
| 57 | Ordered 2D Structure Formed upon the Molecular Beam Epitaxy Growth of Ge on the Silicene/Ag(111) Surface. <i>ACS Omega</i> , 2016, 1, 357-362. | 3.5 | 6 |
| 58 | Controlling the Polarity of the Molecular Beam Epitaxy Grown In-Bi Atomic Film on the Si(111) Surface. <i>Scientific Reports</i> , 2019, 9, 756. | 3.3 | 6 |
| 59 | Extended $\sqrt{2} \times \sqrt{2}$ -phase Bi atomic layer on Si(111) fabricated by thermal desorption. <i>Applied Surface Science</i> , 2020, 504, 144103. | 6.1 | 6 |
| 60 | Atomic-level investigation of the growth of Si/Ge by ultrahigh vacuum chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997, 15, 919-926. | 2.1 | 5 |
| 61 | Thermal reactions on the Cl-terminated SiGe(100) surface. <i>Surface Science</i> , 2002, 507-510, 295-299. | 1.9 | 5 |
| 62 | X-ray truncation rod study of Ge(001) surface roughening by molecular beam homoepitaxial growth. <i>Journal of Applied Physics</i> , 1996, 79, 6858-6864. | 2.5 | 4 |
| 63 | How dissociated fragments of multiatomic molecules saturate all active surface sites? H_2O adsorption on the Si(100) surface. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 404004. | 1.8 | 4 |
| 64 | X-ray study of the interface. <i>Surface Science</i> , 1995, 339, L891-L896. | 1.9 | 3 |
| 65 | Distribution of dangling bond pairs on partially hydrogen-terminated Si(100) surface observed by scanning tunneling microscopy. <i>Surface Science</i> , 2000, 454-456, 196-200. | 1.9 | 3 |
| 66 | Stability and mechanism of selective etching of ultrathin Ge films on the Si(100) surface upon chlorine adsorption. <i>Physical Review B</i> , 2004, 69, . | 3.2 | 3 |
| 67 | Electronic reconstruction at a buried ionic-covalent interface driven by surface reactions. <i>Physical Review B</i> , 2009, 80, . | 3.2 | 3 |
| 68 | Depth Dependence of the Photoelectron Emission Profile for Cathode Lens Microscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 156-157. | 0.4 | 3 |
| 69 | Proximity-Effect-Induced Anisotropic Superconductivity in a Monolayer Ni-Pb Binary Alloy. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 23990-23997. | 8.0 | 3 |
| 70 | Adsorption, thermal reaction, and desorption of disilane on Ge(111)-c(2 $\sqrt{3}$ × $\sqrt{3}$). <i>Physical Review B</i> , 1994, 49, 1836-1843. | 3.2 | 2 |
| 71 | Structure study of GaN:Mg films by X-ray absorption near-edge structure spectroscopy. <i>Solid State Communications</i> , 2001, 117, 577-582. | 1.9 | 2 |
| 72 | Growth behaviour of Ge nano-islands on the nanosized Si{111} facets bordering on two {100} planes. <i>Nanotechnology</i> , 2006, 17, 5207-5211. | 2.6 | 2 |

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|----|--|------|-----------|
| 73 | Systematic variations in apparent topographic height as measured by noncontact atomic force microscopy. Physical Review B, 2006, 74, . | 3.2 | 2 |
| 74 | Correlation of reaction sites during the chlorine extraction by hydrogen atom from $\text{Cl}^{\bullet}\text{Si}(100)\sqrt{2}\times\sqrt{2}$. Journal of Chemical Physics, 2007, 127, 034708. | 3.0 | 2 |
| 75 | Atomic-Scale Chemical Conversion of Single-Layer Transition Metal Dichalcogenides. ACS Nano, 2019, 13, 5611-5615. | 14.6 | 2 |
| 76 | Imaging buried objects with the hard/soft x-ray photoemission electron microscope. Journal of Applied Physics, 2021, 130, 175307. | 2.5 | 2 |
| 77 | Lin and Chiang Reply:. Physical Review Letters, 2006, 96, . | 7.8 | 1 |
| 78 | Growth of Ge and Si on Monolayer Silicene on Metal Surfaces. , 2018, , 155-161. | | 1 |
| 79 | Quantum well electronic states in spatially decoupled 2D Pb nanoislands on Nb-doped $\text{SrTiO}_3(001)$. Applied Surface Science, 2021, 537, 147967. | 6.1 | 1 |
| 80 | Superconducting proximity effect in $\sqrt{3}\times\sqrt{3}$ Ni nanoislands on Pb(111). Physical Review Materials, 2022, 6, . | | 0 |
| 81 | Gallium K-edge EXAFS study of GaN:Mg films. , 2000, 4078, 535. | | 0 |
| 82 | Evolution of Two-Dimensional Structure Phase Transitions $(3\times 3)\sqrt{3}$ and $(1\times 1)\sqrt{2}$ on Hydrogen-Terminated Si(100) Surface. Japanese Journal of Applied Physics, 2006, 45, 2197-2199. | 1.5 | 0 |