# Christophe Detavernier

List of Publications by Year
in descending order



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|---|---|---|---|
| 428 papers | 12,719 citations | 26567 56 h-index | 46693 89 g-index |
| 434 all docs | 434 docs citations | 434 times ranked | 11905 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Towards implementation of a nickel silicide process for CMOS technologies. Microelectronic Engineering, 2003, 70, 144-157. | 1.1 | 387 |
| 2 | Super-dry reforming of methane intensifies CO <sub>2</sub> utilization via Le Chatelierâ€™s principle. Science, 2016, 354, 449-452. | 6.0 | 348 |
| 3 | Tailoring nanoporous materials by atomic layer deposition. Chemical Society Reviews, 2011, 40, 5242. | 18.7 | 338 |
| 4 | Three-Dimensional Observation of the Conductive Filament in Nanoscaled Resistive Memory Devices. Nano Letters, 2014, 14, 2401-2406. | 4.5 | 290 |
| 5 | Barrier height inhomogeneities of epitaxial CoSi2 Schottky contacts on n-Si (100) and (111). Solid-State Electronics, 2000, 44, 663-671. | 0.8 | 225 |
| 6 | High-k dielectrics for future generation memory devices (Invited Paper). Microelectronic Engineering, 2009, 86, 1789-1795. | 1.1 | 218 |
| 7 | Atomic layer deposition of TiO2 from tetrakis-dimethyl-amido titanium or Ti isopropoxide precursors and H2O. Journal of Applied Physics, 2007, 102, . | 1.1 | 214 |
| 8 | Thin film reaction of transition metals with germanium. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 474-485. | 0.9 | 208 |
| 9 | An off-normal fibre-like texture in thin films on single-crystal substrates. Nature, 2003, 426, 641-645. | 13.7 | 181 |
| 10 | Atomic layer deposition of titanium nitride from TDMAT precursor. Microelectronic Engineering, 2009, 86, 72-77. | 1.1 | 149 |
| 11 | CeO<sub>2</sub>-Modified Fe<sub>2</sub>O<sub>3</sub> for CO<sub>2</sub> Utilization via Chemical Looping. Industrial & Engineering Chemistry Research, 2013, 52, 8416-8426. | 1.8 | 149 |
| 12 | In-situ X-ray Diffraction study of Metal Induced Crystallization of amorphous silicon. Thin Solid Films, 2008, 516, 4946-4952. | 0.8 | 140 |
| 13 | Germanium surface passivation and atomic layer deposition of high-kdielectricsâ€”a tutorial review on Ge-based MOS capacitors. Semiconductor Science and Technology, 2012, 27, 074012. | 1.0 | 138 |
| 14 | Effects of additive elements on the phase formation and morphological stability of nickel monosilicide films. Microelectronic Engineering, 2006, 83, 2042-2054. | 1.1 | 121 |
| 15 | Plasma-enhanced chemical vapour deposition growth of Si nanowires with low melting point metal catalysts: an effective alternative to Au-mediated growth. Nanotechnology, 2007, 18, 505307. | 1.3 | 120 |
| 16 | Growth Kinetics and Crystallization Behavior of TiO[sub 2] Films Prepared by Plasma Enhanced Atomic Layer Deposition. Journal of the Electrochemical Society, 2008, 155, H688. | 1.3 | 111 |
| 17 | Catalyst-assisted chemical looping for CO2 conversion to CO. Applied Catalysis B: Environmental, 2015, 164, 184-191. | 10.8 | 110 |
| 18 | High-temperature degradation of NiSi films: Agglomeration versus NiSi2 nucleation. Journal of Applied Physics, 2005, 98, 033526. | 1.1 | 106 |

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| 19 | In situ x-ray diffraction study of metal induced crystallization of amorphous germanium. Journal of Applied Physics, 2009, 105, . | 1.1 | 103 |
| 20 | The coordinatively saturated vanadium MIL-47 as a low leaching heterogeneous catalyst in the oxidation of cyclohexene. Journal of Catalysis, 2012, 285, 196-207. | 3.1 | 100 |
| 21 | Delivering a Modifying Element to Metal Nanoparticles via Support: Ptâ€“Ga Alloying during the Reduction of Pt/Mg(Al,Ga)O<sub>x</sub> Catalysts and Its Effects on Propane Dehydrogenation. ACS Catalysis, 2014, 4, 1812-1824. | 5.5 | 100 |
| 22 | Independent tuning of size and coverage of supported Pt nanoparticles using atomic layer deposition. Nature Communications, 2017, 8, 1074. | 5.8 | 95 |
| 23 | Influence of Pt addition on the texture of NiSi on Si(001). Applied Physics Letters, 2004, 84, 3549-3551. | 1.5 | 93 |
| 24 | Modeling the Conformality of Atomic Layer Deposition: The Effect of Sticking Probability. Journal of the Electrochemical Society, 2009, 156, P63. | 1.3 | 92 |
| 25 | Conformality of Al[sub 2]O[sub 3] and AlN Deposited by Plasma-Enhanced Atomic Layer Deposition. Journal of the Electrochemical Society, 2010, 157, G111. | 1.3 | 91 |
| 26 | Low-Temperature Atomic Layer Deposition of Platinum Using (Methylcyclopentadienyl)trimethylplatinum and Ozone. Journal of Physical Chemistry C, 2013, 117, 20557-20561. | 1.5 | 90 |
| 27 | Influence of the Cu-Te composition and microstructure on the resistive switching of Cu-Te/Al2O3/Si cells. Applied Physics Letters, 2011, 99, . | 1.5 | 89 |
| 28 | Controlling the stability of a Feâ€“Ni reforming catalyst: Structural organization of the active components. Applied Catalysis B: Environmental, 2017, 209, 405-416. | 10.8 | 89 |
| 29 | Reactor concepts for atomic layer deposition on agitated particles: A review. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, . | 0.9 | 85 |
| 30 | Ballistic electron emission microscopy study of barrier height inhomogeneities introduced in Au/n-Si Schottky contacts by a HF pretreatment. Journal of Applied Physics, 1998, 84, 3226-3231. | 1.1 | 82 |
| 31 | Influence of mixing entropy on the nucleation ofCoSi2. Physical Review B, 2000, 62, 12045-12051. | 1.1 | 78 |
| 32 | Semiconductor-metal transition in thin VO2 films grown by ozone based atomic layer deposition. Applied Physics Letters, 2011, 98, . | 1.5 | 78 |
| 33 | Optimizations of Pulsed Plated p and nâ€type Bi<sub>2</sub>Te<sub>3</sub>â€Based Ternary Compounds by Annealing in Different Ambient Atmospheres. Advanced Energy Materials, 2013, 3, 95-104. | 10.2 | 77 |
| 34 | Plasma enhanced atomic layer deposition of Ga<sub>2</sub>O<sub>3</sub>thin films. Journal of Materials Chemistry A, 2014, 2, 19232-19238. | 5.2 | 77 |
| 35 | A USB-controlled potentiostat/galvanostat for thin-film battery characterization. HardwareX, 2017, 2, 34-49. | 1.1 | 76 |
| 36 | Red Mn<sup>4+</sup>-Doped Fluoride Phosphors: Why Purity Matters. ACS Applied Materials & Interfaces, 2018, 10, 18845-18856. | 4.0 | 74 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Phase formation and thermal stability of ultrathin nickel-silicides on Si(100). Applied Physics Letters, 2010, 96, . | 1.5 | 73 |
| 38 | Amorphous and Crystalline Vanadium Oxides as High-Energy and High-Power Cathodes for Three-Dimensional Thin-Film Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 13121-13131. | 4.0 | 73 |
| 39 | Metalâ€Insulator Transition in ALD VO<sub>2</sub> Ultrathin Films and Nanoparticles: Morphological Control. Advanced Functional Materials, 2015, 25, 679-686. | 7.8 | 70 |
| 40 | Selective and reversible ammonia gas detection with nanoporous film functionalized silicon photonic micro-ring resonator. Optics Express, 2012, 20, 11855. | 1.7 | 69 |
| 41 | Thermodynamics and kinetics of room-temperature microstructural evolution in copper films. Journal of Applied Physics, 2003, 94, 2874-2881. | 1.1 | 67 |
| 42 | Comparison of Thermal and Plasma-Enhanced ALD/CVD of Vanadium Pentoxide. Journal of the Electrochemical Society, 2009, 156, P122. | 1.3 | 67 |
| 43 | A BEEM study of the temperature dependence of the barrier height distribution in PtSi/n-Si Schottky diodes. Solid State Communications, 1999, 112, 611-615. | 0.9 | 66 |
| 44 | In Situ X-ray Fluorescence Measurements During Atomic Layer Deposition: Nucleation and Growth of TiO<sub>2</sub> on Planar Substrates and in Nanoporous Films. Journal of Physical Chemistry C, 2011, 115, 6605-6610. | 1.5 | 66 |
| 45 | Fe-Containing Magnesium Aluminate Support for Stability and Carbon Control during Methane Reforming. ACS Catalysis, 2018, 8, 5983-5995. | 5.5 | 66 |
| 46 | Electrical characteristics of CoSi2/n-Si(100) Schottky barrier contacts formed by solid state reaction. Solid-State Electronics, 2000, 44, 1807-1818. | 0.8 | 63 |
| 47 | Microencapsulation of Moisture-Sensitive CaS:Eu[sup 2+] Particles with Aluminum Oxide. Journal of the Electrochemical Society, 2009, 156, J333. | 1.3 | 63 |
| 48 | Optimization of Electrodeposited pâ€Doped Sb<sub>2</sub>Te<sub>3</sub> Thermoelectric Films by Millisecond Potentiostatic Pulses. Advanced Energy Materials, 2012, 2, 345-352. | 10.2 | 63 |
| 49 | Partially fluorinated MIL-47 and Al-MIL-53 frameworks: influence of functionalization on sorption and breathing properties. Physical Chemistry Chemical Physics, 2013, 15, 3552. | 1.3 | 63 |
| 50 | Reaction of thin Ni films with Ge: Phase formation and texture. Journal of Applied Physics, 2006, 100, 034306. | 1.1 | 62 |
| 51 | Thermal expansion of the isostructural PtSi and NiSi: Negative expansion coefficient in NiSi and stress effects in thin films. Journal of Applied Physics, 2003, 93, 2510-2515. | 1.1 | 61 |
| 52 | Understanding the Dual Nature of the Filament Dissolution in Conductive Bridging Devices. Journal of Physical Chemistry Letters, 2015, 6, 1919-1924. | 2.1 | 61 |
| 53 | Plasmonic gold-embedded TiO2 thin films as photocatalytic self-cleaning coatings. Applied Catalysis B: Environmental, 2020, 267, 118654. | 10.8 | 61 |
| 54 | Tuning the Pore Size of Ink-Bottle Mesopores by Atomic Layer Deposition. Chemistry of Materials, 2012, 24, 1992-1994. | 3.2 | 59 |

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| 55 | Voltage-Controlled ONâ€“OFF Ferromagnetism at Room Temperature in a Single Metal Oxide Film. ACS Nano, 2018, 12, 10291-10300. | 7.3 | 57 |
| 56 | Formation and morphological stability of NiSi in the presence of W, Ti, and Ta alloying elements. Journal of Applied Physics, 2007, 101, 044508. | 1.1 | 56 |
| 57 | Composition influence on the physical and electrical properties of SrxTi1â^'xOy-based metal-insulator-metal capacitors prepared by atomic layer deposition using TiN bottom electrodes. Journal of Applied Physics, 2009, 106, 094101. | 1.1 | 56 |
| 58 | Deactivation Study of Fe<sub>2</sub>O<sub>3</sub>â€“CeO<sub>2</sub> during Redox Cycles for CO Production from CO<sub>2</sub>. Industrial & Engineering Chemistry Research, 2016, 55, 5911-5922. | 1.8 | 56 |
| 59 | Air-stable short-wave infrared PbS colloidal quantum dot photoconductors passivated with Al2O3 atomic layer deposition. Applied Physics Letters, 2014, 105, . | 1.5 | 55 |
| 60 | In situ X-ray diffraction study of the controlled oxidation and reduction in the Vâ€“O system for the synthesis of VO<sub>2</sub> and V<sub>2</sub>O<sub>3</sub> thin films. Journal of Materials Chemistry C, 2015, 3, 11357-11365. | 2.7 | 55 |
| 61 | Atomic layer deposition-enabled single layer of tungsten trioxide across a large area. Applied Materials Today, 2017, 6, 44-53. | 2.3 | 52 |
| 62 | In Situ Monitoring of Atomic Layer Deposition in Nanoporous Thin Films Using Ellipsometric Porosimetry. Langmuir, 2012, 28, 3852-3859. | 1.6 | 51 |
| 63 | ALD-grown seed layers for electrochemical copper deposition integrated with different diffusion barrier systems. Microelectronic Engineering, 2011, 88, 684-689. | 1.1 | 50 |
| 64 | The Influence of Ultrathin Amorphous ALD Alumina and Titania on the Rate Capability of Anatase TiO<sub>2</sub> and LiMn<sub>2</sub>O<sub>4</sub> Lithium Ion Battery Electrodes. Advanced Materials Interfaces, 2017, 4, 1601237. | 1.9 | 50 |
| 65 | Ru thin film grown on TaN by plasma enhanced atomic layer deposition. Thin Solid Films, 2009, 517, 4689-4693. | 0.8 | 49 |
| 66 | Chemically Triggered Formation of Two-Dimensional Epitaxial Quantum Dot Superlattices. ACS Nano, 2016, 10, 6861-6870. | 7.3 | 49 |
| 67 | Atomic layer deposition-based synthesis of photoactive TiO2 nanoparticle chains by using carbon nanotubes as sacrificial templates. RSC Advances, 2014, 4, 11648. | 1.7 | 48 |
| 68 | Silver-polymer core-shell nanoparticles for ultrastable plasmon-enhanced photocatalysis. Applied Catalysis B: Environmental, 2017, 200, 31-38. | 10.8 | 48 |
| 69 | Catalyst-assisted chemical looping auto-thermal dry reforming: Spatial structuring effects on process efficiency. Applied Catalysis B: Environmental, 2018, 231, 123-136. | 10.8 | 48 |
| 70 | Atomic layer deposition of ZnOâ€“SnO2 composite thin film: The influence of structure, composition and crystallinity on lithium-ion battery performance. Electrochimica Acta, 2019, 320, 134604. | 2.6 | 48 |
| 71 | Room-temperature grain growth in sputter-deposited Cu films. Applied Physics Letters, 2003, 82, 1863-1865. | 1.5 | 47 |
| 72 | Pt redistribution during Ni(Pt) silicide formation. Applied Physics Letters, 2008, 93, . | 1.5 | 47 |

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| 73 | Atomic layer deposition of vanadium oxides: process and application review. Materials Today Chemistry, 2019, 12, 396-423. | 1.7 | 46 |
| 74 | Air-based photoelectrochemical cell capturing water molecules from ambient air for hydrogen production. RSC Advances, 2014, 4, 29286-29290. | 1.7 | 45 |
| 75 | Molecular layer deposition of â€œtitaniconeâ€, a titanium-based hybrid material, as an electrode for lithium-ion batteries. Dalton Transactions, 2016, 45, 1176-1184. | 1.6 | 45 |
| 76 | Ovonic Thresholdâ€Switching Ge<sub>x</sub>Se<sub>y</sub> Chalcogenide Materials: Stoichiometry, Trap Nature, and Material Relaxation from First Principles. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900672. | 1.2 | 45 |
| 77 | CoSi2 formation in the Ti/Co/SiO2/Si system. Journal of Applied Physics, 2000, 88, 133-140. | 1.1 | 44 |
| 78 | Ultra-low-k cyclic carbon-bridged PMO films with a high chemical resistance. Journal of Materials Chemistry, 2012, 22, 8281. | 6.7 | 44 |
| 79 | Surface engineering of low enriched uraniumâ€“molybdenum. Journal of Nuclear Materials, 2013, 440, 220-228. | 1.3 | 44 |
| 80 | Atomic layer deposition-based tuning of the pore size in mesoporous thin films studied by in situ grazing incidence small angle X-ray scattering. Nanoscale, 2014, 6, 14991-14998. | 2.8 | 44 |
| 81 | Plasma-Enhanced Atomic Layer Deposition of Iron Phosphate as a Positive Electrode for 3D Lithium-Ion Microbatteries. Chemistry of Materials, 2016, 28, 3435-3445. | 3.2 | 44 |
| 82 | Atomic Layer Deposition Route To Tailor Nanoalloys of Noble and Non-noble Metals. ACS Nano, 2016, 10, 8770-8777. | 7.3 | 44 |
| 83 | Manganese oxide films with controlled oxidation state for water splitting devices through a combination of atomic layer deposition and post-deposition annealing. RSC Advances, 2016, 6, 98337-98343. | 1.7 | 44 |
| 84 | Plasma enhanced atomic layer deposition of Fe<sub>2</sub>O<sub>3</sub> thin films. Journal of Materials Chemistry A, 2014, 2, 10662-10667. | 5.2 | 43 |
| 85 | A rotary reactor for thermal and plasma-enhanced atomic layer deposition on powders and small objects. Surface and Coatings Technology, 2012, 213, 183-191. | 2.2 | 42 |
| 86 | Swelling of U(Mo) dispersion fuel under irradiation â€“ Non-destructive analyses of the SELENIUM plates. Journal of Nuclear Materials, 2013, 442, 60-68. | 1.3 | 42 |
| 87 | Molecular layer deposition of â€œvanadiconeâ€, a vanadium-based hybrid material, as an electrode for lithium-ion batteries. Dalton Transactions, 2017, 46, 4542-4553. | 1.6 | 42 |
| 88 | Stabilizing Fluoride Phosphors: Surface Modification by Atomic Layer Deposition. Chemistry of Materials, 2019, 31, 7192-7202. | 3.2 | 42 |
| 89 | Epitaxial Formation of a Metastable Hexagonal Nickelâ€“Silicide. Electrochemical and Solid-State Letters, 2008, 11, H266. | 2.2 | 41 |
| 90 | The effects of deposition temperature and ambient onÂtheÂphysicalÂand electrical performance ofÂDC-sputteredÂn-ZnO/p-Si heterojunction. Applied Physics A: Materials Science and Processing, 2010, 98, 357-365. | 1.1 | 41 |

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| 91 | Implementing TiO2 as gate dielectric for Ge-channel complementary metal-oxide-semiconductor devices by using HfO2/GeO2 interlayer. Applied Physics Letters, 2010, 97, . | 1.5 | 41 |
| 92 | Fuel swelling and interaction layer formation in the SELENIUM Si and ZrN coated U(Mo) dispersion fuel plates irradiated at high power in BR2. Journal of Nuclear Materials, 2015, 458, 380-393. | 1.3 | 41 |
| 93 | A core-shell structured Fe 2 O 3 /ZrO 2 @ZrO 2 nanomaterial with enhanced redox activity and stability for CO 2 conversion. Journal of CO2 Utilization, 2017, 17, 20-31. | 3.3 | 41 |
| 94 | Ultra-thin sub-10â€‰nm Ga2O3-WO3 heterostructures developed by atomic layer deposition for sensitive and selective C2H5OH detection on ppm level. Sensors and Actuators B: Chemical, 2019, 287, 147-156. | 4.0 | 41 |
| 95 | Deposition of MnO Anode and MnO<sub>2</sub> Cathode Thin Films by Plasma Enhanced Atomic Layer Deposition Using the Mn(thd)<sub>3</sub> Precursor. Chemistry of Materials, 2015, 27, 3628-3635. | 3.2 | 40 |
| 96 | The transformation behaviour of â€œaluconesâ€ deposited by molecular layer deposition, in nanoporous Al<sub>2</sub>O<sub>3</sub>layers. Dalton Transactions, 2018, 47, 5860-5870. | 1.6 | 40 |
| 97 | The effect of silicon on the interaction between metallic uranium and aluminum: A 50 year long diffusion experiment. Journal of Nuclear Materials, 2008, 381, 242-248. | 1.3 | 39 |
| 98 | Aluminium atomic layer deposition applied to mesoporous zeolites for acid catalytic activity enhancement. Catalysis Science and Technology, 2011, 1, 218. | 2.1 | 39 |
| 99 | Influence of Ti on CoSi2 nucleation. Applied Physics Letters, 2000, 77, 3170-3172. | 1.5 | 38 |
| 100 | Solid-state formation of titanium carbide and molybdenum carbide as contacts for carbon-containing semiconductors. Journal of Applied Physics, 2006, 99, 063704. | 1.1 | 38 |
| 101 | Influence of a transient hexagonal phase on the microstructure and morphological stability of NiSi films. Applied Physics Letters, 2009, 94, . | 1.5 | 38 |
| 102 | Plasma-Enhanced ALD of Platinum with O<sub>2</sub>, N<sub>2</sub>and NH<sub>3</sub>Plasmas. ECS Journal of Solid State Science and Technology, 2012, 1, Q123-Q129. | 0.9 | 38 |
| 103 | Influence of Carbon Alloying on the Thermal Stability and Resistive Switching Behavior of Copper-Telluride Based CBRAM Cells. ACS Applied Materials & Interfaces, 2013, 5, 6984-6989. | 4.0 | 38 |
| 104 | Atomic Layer Deposition of Pt Nanoparticles within the Cages of MIL-101: A Mild and Recyclable Hydrogenation Catalyst. Nanomaterials, 2016, 6, 45. | 1.9 | 38 |
| 105 | Acidâ€“Base Mediated Ligand Exchange on Near-Infrared Absorbing, Indium-Based IIIâ€“V Colloidal Quantum Dots. Journal of the American Chemical Society, 2021, 143, 4290-4301. | 6.6 | 38 |
| 106 | Atomic Layer Deposition of Aluminum Phosphate Based on the Plasma Polymerization of Trimethyl Phosphate. Chemistry of Materials, 2014, 26, 6863-6871. | 3.2 | 37 |
| 107 | Photocatalytic acetaldehyde oxidation in air using spacious TiO2 films prepared by atomic layer deposition on supported carbonaceous sacrificial templates. Applied Catalysis B: Environmental, 2014, 160-161, 204-210. | 10.8 | 37 |
| 108 | Low Temperature Atomic Layer Deposition of Crystalline In<sub>2</sub>O<sub>3</sub> Films. Journal of Physical Chemistry C, 2015, 119, 11786-11791. | 1.5 | 37 |

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| 109 | Bifunctional Co- and Ni- ferrites for catalyst-assisted chemical looping with alcohols. Applied Catalysis B: Environmental, 2018, 222, 59-72. | 10.8 | 36 |
| 110 | Nucleation Enhancement and Area-Selective Atomic Layer Deposition of Ruthenium Using RuO<sub>4</sub> and H<sub>2</sub> Gas. Chemistry of Materials, 2019, 31, 1491-1499. | 3.2 | 36 |
| 111 | The influence of Ti capping layers on CoSi2 formation. Microelectronic Engineering, 2000, 50, 125-132. | 1.1 | 35 |
| 112 | Atomic layer deposition of ruthenium at 100 Â°C using the RuO<sub>4</sub>-precursor and H<sub>2</sub>. Journal of Materials Chemistry C, 2015, 3, 132-137. | 2.7 | 35 |
| 113 | ALD assisted nanoplasmonic slot waveguide for on-chip enhanced Raman spectroscopy. APL Photonics, 2018, 3, . | 3.0 | 35 |
| 114 | CoSi2 formation in the presence of interfacial silicon oxide. Applied Physics Letters, 1999, 74, 2930-2932. | 1.5 | 34 |
| 115 | In situ synchrotron based x-ray techniques as monitoring tools for atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, . | 0.9 | 34 |
| 116 | K<sub>2</sub>MnF<sub>6</sub> as a precursor for saturated red fluoride phosphors: the struggle for structural stability. Journal of Materials Chemistry C, 2017, 5, 10761-10769. | 2.7 | 34 |
| 117 | Plasmonic Near-Field Localization of Silver Coreâ€“Shell Nanoparticle Assemblies via Wet Chemistry Nanogap Engineering. ACS Applied Materials & Interfaces, 2017, 9, 41577-41585. | 4.0 | 34 |
| 118 | Electron Transfer and Near-Field Mechanisms in Plasmonic Gold-Nanoparticle-Modified TiO<sub>2</sub> Photocatalytic Systems. ACS Applied Nano Materials, 2019, 2, 4067-4074. | 2.4 | 34 |
| 119 | In situ XAS and XRF study of nanoparticle nucleation during O3-based Pt deposition. Catalysis Today, 2014, 229, 2-13. | 2.2 | 33 |
| 120 | A Case Study of ALD Encapsulation of Quantum Dots: Embedding Supported CdSe/CdS/ZnS Quantum Dots in a ZnO Matrix. Journal of Physical Chemistry C, 2016, 120, 18039-18045. | 1.5 | 33 |
| 121 | Microwave induced â€œegg yolkâ€•structure in Cr/V-MIL-53. Chemical Communications, 2017, 53, 8478-8481. | 2.2 | 33 |
| 122 | Thin film solid-state reactions forming carbides as contact materials for carbon-containing semiconductors. Journal of Applied Physics, 2007, 101, 053714. | 1.1 | 32 |
| 123 | Switching mechanism and reverse engineering of low-power Cu-based resistive switching devices. Nanoscale, 2013, 5, 11187. | 2.8 | 32 |
| 124 | Heterogeneous TiO<sub>2</sub>/V<sub>2</sub>O<sub>5</sub>/Carbon Nanotube Electrodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 8055-8064. | 4.0 | 32 |
| 125 | Plasma-enhanced atomic layer deposition of titanium phosphate as an electrode for lithium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 330-338. | 5.2 | 31 |
| 126 | Formation and Functioning of Bimetallic Nanocatalysts: The Power of Xâ€ray Probes. Angewandte Chemie - International Edition, 2019, 58, 13220-13230. | 7.2 | 31 |

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| 127 | Colloidal IIIâ€“V Quantum Dot Photodiodes for Shortâ€Wave Infrared Photodetection. Advanced Science, 2022, 9, e2200844. | 5.6 | 31 |
| 128 | Thermal and Plasma-Enhanced Atomic Layer Deposition of TiN Using TDMAT and NH<sub>3</sub> on Particles Agitated in a Rotary Reactor. ACS Applied Materials & Interfaces, 2014, 6, 7316-7324. | 4.0 | 30 |
| 129 | Crystallization and semiconductor-metal switching behavior of thin VO2 layers grown by atomic layer deposition. Thin Solid Films, 2014, 550, 59-64. | 0.8 | 30 |
| 130 | Texture in thin film silicides and germanides: A review. Applied Physics Reviews, 2016, 3, 031302. | 5.5 | 30 |
| 131 | Reactive Diffusion in the Ni-Si System: Phase Sequence and Formation of Metal-Rich Phases. Defect and Diffusion Forum, 2005, 237-240, 825-836. | 0.4 | 29 |
| 132 | Influence of Ge substrate crystallinity on Co germanide formation in solid-state reactions. Applied Physics Letters, 2007, 90, 031906. | 1.5 | 29 |
| 133 | Embedding Quantum Dot Monolayers in Al<sub>2</sub>O<sub>3</sub> Using Atomic Layer Deposition. Chemistry of Materials, 2011, 23, 126-128. | 3.2 | 29 |
| 134 | Conformality of thermal and plasma enhanced atomic layer deposition on a non-woven fibrous substrate. Surface and Coatings Technology, 2012, 206, 4511-4517. | 2.2 | 29 |
| 135 | Factors Influencing the Conductivity of Aqueous Sol(ution)â€“Gel-Processed Al-Doped ZnO Films. Chemistry of Materials, 2014, 26, 5839-5851. | 3.2 | 29 |
| 136 | Formation of epitaxial CoSi2 by a Cr or Mo interlayer: Comparison with a Ti interlayer. Journal of Applied Physics, 2001, 89, 2146-2150. | 1.1 | 28 |
| 137 | In Situ IR Spectroscopic Investigation of Alumina ALD on Porous Silica Films: Thermal versus Plasma-Enhanced ALD. Journal of Physical Chemistry C, 2014, 118, 29854-29859. | 1.5 | 28 |
| 138 | Unravelling the Formation of Ptâ€“Ga Alloyed Nanoparticles on Calcined Ga-Modified Hydrotalcites by in Situ XAS. Chemistry of Materials, 2014, 26, 5936-5949. | 3.2 | 28 |
| 139 | Direct Imaging of ALD Deposited Pt Nanoclusters inside the Giant Pores of MILâ€101. Particle and Particle Systems Characterization, 2016, 33, 382-387. | 1.2 | 28 |
| 140 | Effective reduction of fixed charge densities in germanium based metal-oxide-semiconductor devices. Applied Physics Letters, 2011, 99, . | 1.5 | 27 |
| 141 | Atomic layer deposited second-order nonlinear optical metamaterial for back-end integration with CMOS-compatible nanophotonic circuitry. Optics Letters, 2015, 40, 5371. | 1.7 | 27 |
| 142 | Atomic layer deposition of vanadium oxides for thin-film lithium-ion battery applications. RSC Advances, 2016, 6, 114658-114665. | 1.7 | 27 |
| 143 | CoSi2 formation through SiO2. Thin Solid Films, 2001, 386, 19-26. | 0.8 | 26 |
| 144 | Texture of tetragonalÎ±â˜FeSi2films on Si(001). Physical Review B, 2004, 69, . | 1.1 | 26 |

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|---|---|---|---|
| 145 | The influence of Pt redistribution on Ni1â^'xPtxSi growth properties. Journal of Applied Physics, 2010, 108, . | 1.1 | 26 |
| 146 | Anisotropic Atomic Layer Deposition Profiles of TiO<sub>2</sub> in Hierarchical Silica Material with Multiple Porosity. Chemistry of Materials, 2012, 24, 2775-2780. | 3.2 | 26 |
| 147 | Scanning probe microscopy as a scalpel to probe filament formation in conductive bridging memory devices. Microelectronic Engineering, 2014, 120, 67-70. | 1.1 | 26 |
| 148 | In Situ Electron Paramagnetic Resonance and X-ray Diffraction Monitoring of Temperature-Induced Breathing and Related Structural Transformations in Activated V-Doped MIL-53(Al). Journal of Physical Chemistry C, 2016, 120, 17400-17407. | 1.5 | 26 |
| 149 | FeO controls the sintering of iron-based oxygen carriers in chemical looping CO2 conversion. Journal of CO2 Utilization, 2020, 40, 101216. | 3.3 | 26 |
| 150 | Ultrathin GeOxNy interlayer formed by in situâ€ˆNH3 plasma pretreatment for passivation of germanium metal-oxide-semiconductor devices. Applied Physics Letters, 2010, 97, . | 1.5 | 25 |
| 151 | Thermal-stability optimization of Al2O3/Cuâ€“Te based conductive-bridging random access memory systems. Thin Solid Films, 2013, 533, 29-33. | 0.8 | 25 |
| 152 | Porous nanostructured metal oxides synthesized through atomic layer deposition on a carbonaceous template followed by calcination. Journal of Materials Chemistry A, 2015, 3, 2642-2649. | 5.2 | 25 |
| 153 | Key role of surface oxidation and reduction processes in the coarsening of Pt nanoparticles. Nanoscale, 2017, 9, 13159-13170. | 2.8 | 25 |
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