

Alessandra Alberti

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4360648/publications.pdf>

Version: 2024-02-01

130
papers

2,725
citations

236925

25
h-index

223800

46
g-index

135
all docs

135
docs citations

135
times ranked

3982
citing authors

#	ARTICLE	IF	CITATIONS
1	Blackâ€Yellow Bandgap Tradeâ€Off During Thermal Stability Tests in Lowâ€Temperature Euâ€Doped CsPbI ₃ . Solar Rrl, 2022, 6, .	5.8	8
2	Mesoporous Materials and Nanoscale Phenomena in Hybrid Photovoltaics. Nanomaterials, 2022, 12, 1307.	4.1	0
3	Outâ€ofâ€Glovebox Integration of Recyclable Europiumâ€Doped CsPbI ₃ in Tripleâ€Mesoscopic Carbonâ€Based Solar Cells Exceeding 9% Efficiency. Solar Rrl, 2022, 6, .	5.8	9
4	Inter-diffusion, melting and reaction interplay in Ni/4H-SiC under excimer laser annealing. Applied Surface Science, 2021, 539, 148218.	6.1	7
5	Two-step MAPbI ₃ deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 16456-16469.	10.3	25
6	CsPbBr ₃ , MAPbBr ₃ , and FAPbBr ₃ Bromide Perovskite Single Crystals: Interband Critical Points under Dry N ₂ and Optical Degradation under Humid Air. Journal of Physical Chemistry C, 2021, 125, 4938-4945.	3.1	26
7	Optical behaviour of Î³-black CsPbI ₃ phases formed by quenching from 80 Â°C and 325 Â°C. JPhys Materials, 2021, 4, 034011.	4.2	6
8	Formation of CsPbI ₃ Î³â€Phase at 80â€%Â°C by Europiumâ€Assisted Snowplow Effect. Advanced Energy and Sustainability Research, 2021, 2, 2100091.	5.8	8
9	Exploring the Structural Competition between the Black and the Yellow Phase of CsPbI ₃ . Nanomaterials, 2021, 11, 1282.	4.1	12
10	Simulations of the Ultra-Fast Kinetics in Ni-Si-C Ternary Systems under Laser Irradiation. Materials, 2021, 14, 4769.	2.9	6
11	MAPbI ₃ Deposition by LV-PSE on TiO ₂ for Photovoltaic Application. Frontiers in Electronics, 2021, 2, .	3.2	1
12	Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact. Materialia, 2020, 9, 100528.	2.7	12
13	Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. Energies, 2020, 13, 3953.	3.1	7
14	Temperature-Dependent Optical Band Gap in CsPbBr ₃ , MAPbBr ₃ , and FAPbBr ₃ Single Crystals. Journal of Physical Chemistry Letters, 2020, 11, 2490-2496.	4.6	173
15	Local Order and Rotational Dynamics in Mixed A-Cation Lead Iodide Perovskites. Journal of Physical Chemistry Letters, 2020, 11, 1068-1074.	4.6	31
16	Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts. Frontiers in Chemistry, 2020, 8, 200.	3.6	8
17	Nanostructured TiO ₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 6218-6229.	5.1	27
18	Temperature Investigation on 3C-SiC Homo-Epitaxy on Four-Inch Wafers. Materials, 2019, 12, 3293.	2.9	15

#	ARTICLE	IF	CITATIONS
19	New Synthetic Route for the Growth of FeOOH/NH_2 -Mil-101 Films on Copper Foil for High Surface Area Electrodes. ACS Omega, 2019, 4, 18495-18501.	3.5	8
20	Fast and Efficient Sun Light Photocatalytic Activity of Au-ZnO Core-Shell Nanoparticles Prepared by a One-Pot Synthesis. ACS Omega, 2019, 4, 15061-15066.	3.5	28
21	Bimodal Porosity and Stability of a TiO ₂ Gig-Lox Sponge Infiltrated with Methyl-Ammonium Lead Iodide Perovskite. Nanomaterials, 2019, 9, 1300.	4.1	7
22	Pb clustering and PbI ₂ nanofragmentation during methylammonium lead iodide perovskite degradation. Nature Communications, 2019, 10, 2196.	12.8	116
23	Porous Gig-Lox TiO ₂ Doped with N ₂ at Room Temperature for P-Type Response to Ethanol. Chemosensors, 2019, 7, 12.	3.6	4
24	Properties of Al ₂ O ₃ thin films deposited on 4H-SiC by reactive ion sputtering. Materials Science in Semiconductor Processing, 2019, 93, 290-294.	4.0	10
25	Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC. Materials Science in Semiconductor Processing, 2019, 97, 62-66.	4.0	25
26	Nitrogen doped spongy TiO ₂ layers for sensors application. Materials Science in Semiconductor Processing, 2019, 98, 44-48.	4.0	8
27	Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride. Materials Science in Semiconductor Processing, 2019, 94, 164-170.	4.0	30
28	Nitrogen Soaking Promotes Lattice Recovery in Polycrystalline Hybrid Perovskites. Advanced Energy Materials, 2019, 9, 1803450.	19.5	46
29	Heterogeneous growth of continuous ZIF-8 films on low-temperature amorphous silicon. Applied Surface Science, 2019, 473, 182-189.	6.1	7
30	Simulation of the Growth Kinetics in Group IV Compound Semiconductors. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800597.	1.8	6
31	Barrier Inhomogeneity of Ni Schottky Contacts to Bulk GaN. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700613.	1.8	14
32	Innovative spongy TiO ₂ layers for gas detection at low working temperature. Sensors and Actuators B: Chemical, 2018, 259, 658-667.	7.8	23
33	Structural and Optical Behaviour of MAPbI ₃ Layers in Nitrogen and Humid Air. , 2018, , .		0
34	Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?. Journal of Physical Chemistry Letters, 2018, 9, 3000-3007.	4.6	102
35	Carbonization and transition layer effects on 3C-SiC film residual stress. Journal of Crystal Growth, 2017, 473, 11-19.	1.5	22
36	Revealing a Discontinuity in the Degradation Behavior of $\text{CH}_3\text{NH}_3\text{PbI}_3$ during Thermal Operation. Journal of Physical Chemistry C, 2017, 121, 13577-13585.	3.1	37

#	ARTICLE	IF	CITATIONS
37	First Evidence of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Optical Constants Improvement in a N_2 Environment in the Range 40–80 °C. Journal of Physical Chemistry C, 2017, 121, 7703-7710.	3.1	49
38	Ion irradiation of AZO thin films for flexible electronics. Nuclear Instruments & Methods in Physics Research B, 2017, 392, 14-20.	1.4	13
39	Pervasive infiltration and multi-branch chemisorption of N-719 molecules into newly designed spongy TiO_2 layers deposited by gig-lox sputtering processes. Journal of Materials Chemistry A, 2017, 5, 25529-25538.	10.3	12
40	Performance of natural-dye-sensitized solar cells by ZnO nanorod and nanowall enhanced photoelectrodes. Beilstein Journal of Nanotechnology, 2017, 8, 287-295.	2.8	21
41	Influence of hydrofluoric acid treatment on electroless deposition of Au clusters. Beilstein Journal of Nanotechnology, 2017, 8, 183-189.	2.8	8
42	Controlled Al^{3+} Incorporation in the ZnO Lattice at 188 °C by Soft Reactive Co-Sputtering for Transparent Conductive Oxides. Energies, 2016, 9, 433.	3.1	9
43	Multi-Scale-Porosity TiO_2 scaffolds grown by innovative sputtering methods for high throughput hybrid photovoltaics. Scientific Reports, 2016, 6, 39509.	3.3	34
44	Strong infrared photoluminescence in highly porous layers of large faceted Si crystalline nanoparticles. Scientific Reports, 2016, 6, 25664.	3.3	11
45	Spontaneous bidirectional ordering of CH_3NH_3^+ in lead iodide perovskites at room temperature: The origins of the tetragonal phase. Scientific Reports, 2016, 6, 24443.	3.3	37
46	Stability of solution-processed MAPbI_3 and FAPbI_3 layers. Physical Chemistry Chemical Physics, 2016, 18, 13413-13422.	2.8	208
47	Structural and electronic transitions in $\text{CH}_3\text{NH}_3\text{PbI}_3$ $\text{G} < \text{e} > \text{S} < \text{b} >$	3.2	33
48	Voids-Free 3C-SiC/Si Interface for High Quality Epitaxial Layer. Materials Science Forum, 2016, 858, 159-162.	0.3	2
49	From PbI_2 to MAPbI_3 through Layered Intermediates. Journal of Physical Chemistry C, 2016, 120, 19768-19777.	3.1	26
50	Phase Transitions in Ge-Sb-Te Alloys Induced by Ion Irradiations. MRS Advances, 2016, 1, 2701-2709.	0.9	2
51	A Comparison Among Low Temperature Piezoelectric Flexible Sensors Based on Polysilicon TFTs for Advanced Tactile Sensing on Plastic. Journal of Display Technology, 2016, 12, 209-213.	1.2	12
52	Octahedral faceted Si nanoparticles as optical traps with enormous yield amplification. Scientific Reports, 2015, 5, 8354.	3.3	12
53	Similar Structural Dynamics for the Degradation of $\text{CH}_3\text{NH}_3\text{PbI}_3$ in Air and in Vacuum. ChemPhysChem, 2015, 16, 3064-3071.	2.1	80
54	Atomistic origins of $\text{CH}_3\text{NH}_3\text{PbI}_3$ degradation to PbI_2 in vacuum. Applied Physics Letters, 2015, 106, .	3.3	158

#	ARTICLE	IF	CITATIONS
55	Low-cost high-haze films based on ZnO nanorods for light scattering in thin c-Si solar cells. Applied Physics Letters, 2015, 106, .	3.3	21
56	Interface state density evaluation of high quality hetero-epitaxial 3C-SiC(001) for high-power MOSFET applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 198, 14-19.	3.5	15
57	Texture of MAPbI ₃ Layers Assisted by Chloride on Flat TiO ₂ Substrates. Journal of Physical Chemistry C, 2015, 119, 19808-19816.	3.1	36
58	AlN texturing and piezoelectricity on flexible substrates for sensor applications. Applied Physics Letters, 2015, 106, .	3.3	33
59	Low temperature sputtered TiO ₂ nano sheaths on electrospun PES fibers as high porosity photoactive material. RSC Advances, 2015, 5, 73444-73450.	3.6	14
60	Electrical Properties Evaluation on High Quality Hetero-Epitaxial 3C-SiC(001) for MOSFET Applications. Materials Science Forum, 2015, 821-823, 773-776.	0.3	3
61	Study of the role of particle-particle dipole interaction in dielectrophoretic devices for biomarkers identification. Lecture Notes in Electrical Engineering, 2015, , 9-12.	0.4	3
62	Low-temperature flexible piezoelectric AlN capacitor integrated on ultra-flexible poly-Si TFT for advanced tactile sensing. , 2014, , .		2
63	Nanoscale electrical and structural modification induced by rapid thermal oxidation of AlGaIn/GaN heterostructures. Nanotechnology, 2014, 25, 025201.	2.6	21
64	Thermally induced structural modifications of nano-sized anatase films and the effects on the dye-TiO ₂ surface interactions. Applied Surface Science, 2014, 296, 69-78.	6.1	13
65	Flexible pH sensors based on polysilicon thin film transistors and ZnO nanowalls. Applied Physics Letters, 2014, 105, .	3.3	71
66	A strategy to stabilise the local structure of Ti ⁴⁺ and Zn ²⁺ species against aging in TiO ₂ /aluminium-doped ZnO bi-layers for applications in hybrid solar cells. Journal of Applied Physics, 2014, 116, .	2.5	5
67	Elusive Presence of Chloride in Mixed Halide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 3532-3538.	4.6	175
68	Theoretical and experimental study of the role of cell-cell dipole interaction in dielectrophoretic devices: application to polynomial electrodes. BioMedical Engineering OnLine, 2014, 13, 71.	2.7	18
69	Combined Strategy to Realize Efficient Photoelectrodes for Low Temperature Fabrication of Dye Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 6425-6433.	8.0	14
70	Anatase/Rutile nucleation and growth on (0002) and (11-20) oriented ZnO:Al/glass substrates at 150Â°C. Thin Solid Films, 2014, 555, 3-8.	1.8	19
71	Evaluation of 3C-SiC/Si residual stress and curvatures along different wafer direction. Materials Letters, 2014, 118, 130-133.	2.6	8
72	Efficiency Enhancement in ZnO:Al-Based Dye-Sensitized Solar Cells Structured with Sputtered TiO ₂ Blocking Layers. Journal of Physical Chemistry C, 2014, 118, 6576-6585.	3.1	29

#	ARTICLE	IF	CITATIONS
73	Structural characterization of <i>in situ</i> silicided contacts textured on p-type [001] silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 160-163.	0.8	4
74	Role of the early stages of Ni-Si interaction on the formation of transrotational Ni-silicides. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 164-168.	0.8	2
75	Role of the early stages of Ni-Si interaction on the structural properties of the reaction products. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	24
76	Giant photoluminescence emission in crystalline faceted Si grains. <i>Scientific Reports</i> , 2013, 3, 2674.	3.3	8
77	Silicided Au/Ni bilayer on p-type [0 0 1] silicon for low contact resistance metallization schemes. <i>Microelectronic Engineering</i> , 2013, 107, 196-199.	2.4	5
78	Study of the Anchoring Process of Tethered Unsymmetrical Zn-Phthalocyanines on TiO_2 Nanostructured Thin Films. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11176-11185.	3.1	22
79	Mixed phase $\text{Ge}_2\text{Sb}_2\text{Te}_5$ thin films with temperature independent resistivity. <i>AIP Advances</i> , 2013, 3, .	1.3	7
80	Nanoscale study of the current transport through transrotational NiSi/n-Si contacts by conductive atomic force microscopy. <i>Applied Physics Letters</i> , 2012, 101, 261906.	3.3	7
81	Role of the Ge surface during the end of range dissolution. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	11
82	Rilievo in tempo reale di difetti superficiali su corpi in movimento a velocità elevata con ultrasuoni senza contatto. <i>Frattura Ed Integrità Strutturale</i> , 2012, 6, 93-101.	0.9	1
83	Fiber texturing in nano-crystalline TiO_2 thin films deposited at 150°C by dc-reactive sputtering on fiber-textured [001] ZnO:Al substrates. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 355301.	2.4	14
84	Electrical Properties of Ultrathin SiO_2 Layer Deposited at 50°C by Inductively Coupled Plasma-Enhanced Chemical Vapor Deposition. <i>Applied Physics Express</i> , 2012, 5, 021103.	2.4	11
85	Dye-Sensitizing of Self-Nanostructured $\text{Ti}(\text{Zn})\text{O}_2/\text{AZO}$ Transparent Electrodes by Self-Assembly of 5,10,15,20-Tetrakis(4-carboxyphenyl)porphyrin. <i>Journal of Physical Chemistry C</i> , 2011, 115, 7760-7767.	3.1	28
86	Structural and electrical characterization of silicided Ni/Au contacts formed at low temperature ($<300^\circ\text{C}$) on p-type [001] silicon. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	10
87	Schottky Barrier Inhomogeneities in Nickel Silicide Transrotational Contacts. <i>Applied Physics Express</i> , 2011, 4, 115701.	2.4	7
88	Simultaneous nickel silicidation and silicon crystallization induced by excimer laser annealing on plastic substrate. <i>Applied Physics Letters</i> , 2010, 96, 142113.	3.3	14
89	Nickel-affected silicon crystallization and silicidation on polyimide by multipulse excimer laser annealing. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	8
90	Low temperature formation and evolution of a 10 nm amorphous Ni-Si layer on [001] silicon studied by <i>in situ</i> transmission electron microscopy. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	12

#	ARTICLE	IF	CITATIONS
91	Nucleation and growth of NiSi from Ni ₂ Si transrotational domains. Applied Physics Letters, 2007, 90, 053507.	3.3	10
92	Temperature Dependent Reaction of Thin Ni-Silicide Transrotational Layers on [001]Si. , 2007, , .		1
93	Temperature dependence of the specific resistance in Ti ⁺ •Al ⁺ •Ni ⁺ •Au contacts on n-type GaN. Journal of Applied Physics, 2006, 100, 123706.	2.5	80
94	Nanoscale carrier transport in Ti ⁺ •Al ⁺ •Ni ⁺ •Au Ohmic contacts on AlGaIn epilayers grown on Si(111). Applied Physics Letters, 2006, 89, 022103.	3.3	68
95	Structural characterization of Ni ₂ Si pseudoeptaxial transrotational structures on [001] Si. Acta Crystallographica Section B: Structural Science, 2006, 62, 729-736.	1.8	14
96	Microstructure and current transport in Ti/Al/Ni/Au ohmic contacts to n-type AlGaIn epilayers grown on Si(111). Superlattices and Microstructures, 2006, 40, 373-379.	3.1	11
97	Ab Initio Investigations of Textured Ni ₂ Si Films on Silicon. ECS Transactions, 2006, 3, 149-155.	0.5	1
98	Critical nickel thickness to form silicide transrotational structures on [001] silicon. Applied Physics Letters, 2006, 89, 102105.	3.3	20
99	A decision support system for optimising the selection of parameters when planning milling operations. International Journal of Machine Tools and Manufacture, 2005, 45, 201-210.	13.4	29
100	Pseudoeptaxial transrotational structures in 14nm-thick NiSi layers on [001] silicon. Acta Crystallographica Section B: Structural Science, 2005, 61, 486-491.	1.8	25
101	Effect of a Ti Cap Layer on the Diffusion of Co Atoms during CoSi ₂ Reaction. Electrochemical and Solid-State Letters, 2005, 8, G47.	2.2	7
102	Diffusion phenomena in a Pt/IrO ₂ /Ir/TiN/W multilayer structure during annealing in oxygen. Applied Physics Letters, 2004, 84, 209-211.	3.3	1
103	Thin nickel silicide layer formation on silicon on insulator material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 42-45.	3.5	3
104	Thermal stability of nickel silicide on silicon on insulator (SOI) material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 228-231.	3.5	7
105	Time resolved CoSi ₂ reaction in presence of Ti and TiN cap layers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 114-115, 232-235.	3.5	2
106	Time resolved study on Co/Ni/a-Si phase transition during isothermal annealing at 400 Å°C. Microelectronic Engineering, 2003, 70, 191-195.	2.4	1
107	High-resolution investigation of atomic interdiffusion during Co/Ni/Si phase transition. Journal of Applied Physics, 2003, 94, 231-237.	2.5	14
108	Effects of N-induced heterogeneous nucleation and growth of cavities at the CoSi ₂ /polycrystalline silicon interface. Applied Physics Letters, 2002, 81, 55-57.	3.3	9

#	ARTICLE	IF	CITATIONS
109	Thermal stability of SiO ₂ /CoSi ₂ /polysilicon multilayer structures improved by cavity formation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 880.	1.6	0
110	Correlation between microstructure control, density and diffusion barrier properties of TiN(O) films. Microelectronic Engineering, 2002, 60, 81-87.	2.4	8
111	Study of CoSi ₂ thermal stability improved by interfacial cavities. Microelectronic Engineering, 2002, 64, 151-156.	2.4	2
112	The effect of the reaction temperature on the thermal stability of polycrystalline CoSi ₂ layers on Si(001). Microelectronic Engineering, 2001, 55, 151-156.	2.4	3
113	Structural relationship of polycrystalline cobalt silicide lines to (001) silicon substrate and their thermal stability. Microelectronic Engineering, 2001, 55, 163-169.	2.4	7
114	Improvement of CoSi ₂ thermal stability by cavity formation. Applied Physics Letters, 2001, 79, 3419-3421.	3.3	10
115	Effect of lateral dimensional scaling on the thermal stability of poly-CoSi ₂ reacted on Si (001). Microelectronic Engineering, 2000, 50, 179-186.	2.4	0
116	Effect of lateral dimensional scaling on the thermal stability of thin CoSi ₂ layers reacted on polycrystalline silicon. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 717.	1.6	4
117	Structural relationship of polycrystalline cobalt silicide lines to (001) silicon substrate. Applied Physics Letters, 1999, 75, 2924-2926.	3.3	4
118	Thermal stability of cobalt silicide stripes on Si (001). Journal of Applied Physics, 1999, 86, 3089-3095.	2.5	21
119	Cobalt silicide thermal stability: from blanket thin film to submicrometer lines. Solid-State Electronics, 1999, 43, 1039-1044.	1.4	5
120	Thermal stability of thin CoSi ₂ layers on polysilicon implanted with As, BF ₃ , and Si. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 1129.	1.6	24
121	Effect of lateral dimension scaling on thermal stability of thin CoSi ₂ layers on polysilicon implanted with Si. Materials Research Society Symposia Proceedings, 1998, 514, 381.	0.1	2
122	Thermal stability of thin CoSi ₂ layers grown on amorphous silicon. Microelectronic Engineering, 1997, 37-38, 475-481.	2.4	4
123	3C-SiC Growth on (001) Si Substrates by Using a Multilayer Buffer. Materials Science Forum, 0, 740-742, 263-266.	0.3	2
124	Effects of the Growth Rate on the Quality of 4H Silicon Carbide Films for MOSFET Applications. Materials Science Forum, 0, 778-780, 95-98.	0.3	3
125	3C-SiC Polycrystalline Films on Si for Photovoltaic Applications. Materials Science Forum, 0, 821-823, 189-192.	0.3	3
126	Metal/P-GaN Contacts on AlGaN/GaN Heterostructures for Normally-Off HEMTs. Materials Science Forum, 0, 858, 1170-1173.	0.3	7

#	ARTICLE	IF	CITATIONS
127	Stacking Faults Defects on 3C-SiC Homo-Epitaxial Films. Materials Science Forum, 0, 924, 124-127.	0.3	5
128	High Resolution Investigation of Stacking Fault Density by HRXRD and STEM. Materials Science Forum, 0, 963, 346-349.	0.3	5
129	Nitrogen soaking promotes lattice recovery in polycrystalline hybrid perovskites. , 0, , .		0
130	Structural and Electrical Characterization of Ni-Based Ohmic Contacts on 4H-SiC Formed by Solid-State Laser Annealing. Materials Science Forum, 0, 1062, 417-421.	0.3	2