Mikko Ritala

List of Publications by Citations

526 papers	23,469 citations	74 h-index	126 g-index
565 ext. papers	25,100 ext. citations	4.7 avg, IF	6.92 L-index

#	Paper	IF	Citations
526	Crystallinity of inorganic films grown by atomic layer deposition: Overview and general trends. *Journal of Applied Physics*, **2013**, 113, 021301	2.5	1011
525	Atomic layer deposition (ALD): from precursors to thin film structures. *Thin Solid Films*, **2002**, 409, 138-146	1.9	958
524	Atomic layer deposition chemistry: recent developments and future challenges. *Angewandte Chemie - International Edition*, **2003**, 42, 5548-54	16.4	843
523	Atomic layer deposition of oxide thin films with metal alkoxides as oxygen sources. *Science*, **2000**, 288, 319-21	33.3	415
522	Atomic Layer Deposition of Platinum Thin Films. *Chemistry of Materials*, **2003**, 15, 1924-1928	9.6	329
521	Growth of titanium dioxide thin films by atomic layer epitaxy. *Thin Solid Films*, **1993**, 225, 288-295	2.2	276
520	Titanium isopropoxide as a precursor in atomic layer epitaxy of titanium dioxide thin films. *Chemistry of Materials*, **1993**, 5, 1174-1181	9.6	259
519	Perfectly Conformal TiN and Al2O3 Films Deposited by Atomic Layer Deposition. *Chemical Vapor Deposition*, **1999**, 5, 7-9		254
518	Atomic layer epitaxy - a valuable tool for nanotechnology?. *Nanotechnology*, **1999**, 10, 19-24	3.4	249
517	Atomic Layer Deposition of Noble Metals and Their Oxides. *Chemistry of Materials*, **2014**, 26, 786-801	9.6	244
516	Thin Film Deposition Methods for CuInSe 2 Solar Cells. *Critical Reviews in Solid State and Materials Sciences*, **2005**, 30, 1-31	10.1	235
515	Atomic layer deposition **2002**, 103-159		232
514	X-ray ptychographic computed tomography at 16 nm isotropic 3D resolution. *Scientific Reports*, **2014**, 4, 3857	4.9	228
513	Effect of water dose on the atomic layer deposition rate of oxide thin films. *Thin Solid Films*, **2000**, 368, 1-7	2.2	227
512	Ruthenium Thin Films Grown by Atomic Layer Deposition. *Chemical Vapor Deposition*, **2003**, 9, 45-49		219
511	Photoswitchable Superabsorbency Based on Nanocellulose Aerogels. *Advanced Functional Materials*, **2011**, 21, 510-517	15.6	218
510	Tailoring the dielectric properties of HfO2Ta2O5 nanolaminates. *Applied Physics Letters*, **1996**, 68, 3737-3739	3.4	194

509	Atomic Layer Deposition of Photocatalytic TiO2 Thin Films from Titanium Tetramethoxide and Water. *Chemical Vapor Deposition*, **2004**, 10, 143-148		190
508	Reaction Mechanism Studies on Atomic Layer Deposition of Ruthenium and Platinum. *Electrochemical and Solid-State Letters*, **2003**, 6, C130		186
507	Titanium isopropoxide as a precursor for atomic layer deposition: characterization of titanium dioxide growth process. *Applied Surface Science*, **2000**, 161, 385-395	6.7	182
506	Atomic layer deposition in nanometer-level replication of cellulosic substances and preparation of photocatalytic TiO2/cellulose composites. *Journal of the American Chemical Society*, **2005**, 127, 14178-9	16.4	175
505	Development of crystallinity and morphology in hafnium dioxide thin films grown by atomic layer epitaxy. *Thin Solid Films*, **1994**, 250, 72-80	2.2	175
504	Atomic Layer Deposition of Hafnium Dioxide Films from Hafnium Tetrakis(ethylmethylamide) and Water. *Chemical Vapor Deposition*, **2002**, 8, 199-204		174
503	Low-temperature atomic layer deposition of Al2O3 thin coatings for corrosion protection of steel: Surface and electrochemical analysis. *Corrosion Science*, **2011**, 53, 2168-2175	6.8	162
502	Controlled Growth of TaN, Ta3N5, and TaOxNy Thin Films by Atomic Layer Deposition. *Chemistry of Materials*, **1999**, 11, 1712-1718	9.6	150
501	Zone-doubling technique to produce ultrahigh-resolution x-ray optics. *Physical Review Letters*, **2007**, 99, 264801	7.4	140
500	Atomic layer deposition of noble metals: Exploration of the low limit of the deposition temperature. *Journal of Materials Research*, **2004**, 19, 3353-3358	2.5	140
499	In Situ Quartz Crystal Microbalance and Quadrupole Mass Spectrometry Studies of Atomic Layer Deposition of Aluminum Oxide from Trimethylaluminum and Water. *Langmuir*, **2001**, 17, 6506-6509	4	137
498	Zirconium dioxide thin films deposited by ALE using zirconium tetrachloride as precursor. *Applied Surface Science*, **1994**, 75, 333-340	6.7	137
497	Crystallization in hafnia- and zirconia-based systems. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 2268-2278	1.3	134
496	Growth of SrTiO[sub 3] and BaTiO[sub 3] Thin Films by Atomic Layer Deposition. *Electrochemical and Solid-State Letters*, **1999**, 2, 504		133
495	Atomic layer deposition of metal tellurides and selenides using alkylsilyl compounds of tellurium and selenium. *Journal of the American Chemical Society*, **2009**, 131, 3478-80	16.4	132
494	Atomic Layer Deposition of Ruthenium Thin Films from Ru(thd)3 and Oxygen. *Chemical Vapor Deposition*, **2004**, 10, 215-219		127
493	Atomic Layer Epitaxy Growth of TiN Thin Films. *Journal of the Electrochemical Society*, **1995**, 142, 2731-2737	3.9	125
492	Atomic Layer Deposition of Iridium Thin Films. *Journal of the Electrochemical Society*, **2004**, 151, G489	3.9	123

491	Hollow Inorganic Nanospheres and Nanotubes with Tunable Wall Thicknesses by Atomic Layer Deposition on Self-Assembled Polymeric Templates. *Advanced Materials*, **2007**, 19, 102-106	24	118
490	Rare-earth oxide thin films for gate dielectrics in microelectronics. *Journal of Alloys and Compounds*, **2006**, 418, 27-34	5.7	118
489	Synthesis of oxide thin films and overlayers by atomic layer epitaxy for advanced applications. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1996**, 41, 23-29	3.1	117
488	Reaction Mechanism Studies on Titanium Isopropoxide□Water Atomic Layer Deposition Process. *Chemical Vapor Deposition*, **2002**, 8, 21		115
487	Growth of In2S3 thin films by atomic layer epitaxy. *Applied Surface Science*, **1994**, 82-83, 122-125	6.7	115
486	Comparison of hafnium oxide films grown by atomic layer deposition from iodide and chloride precursors. *Thin Solid Films*, **2002**, 416, 72-79	2.2	114
485	Influence of sol and surface properties on in vitro bioactivity of sol-gel-derived TiO2 and TiO2-SiO2 films deposited by dip-coating method. *Journal of Biomedical Materials Research Part B*, **1998**, 42, 295-302		112
484	Atomic Layer Epitaxy Growth of Tantalum Oxide Thin Films from Ta (OC 2 H 5) 5 and H 2 O. *Journal of the Electrochemical Society*, **1995**, 142, 1670-1675	3.9	112
483	Nanofocusing of hard X-ray free electron laser pulses using diamond based Fresnel zone plates. *Scientific Reports*, **2011**, 1, 57	4.9	108
482	Atomic Layer Deposition of Nanostructured TiO2 Photocatalysts via Template Approach. *Chemistry of Materials*, **2007**, 19, 1816-1820	9.6	108
481	Properties of Ta2 O 5-Based Dielectric Nanolaminates Deposited by Atomic Layer Epitaxy. *Journal of the Electrochemical Society*, **1997**, 144, 300-306	3.9	107
480	Atomic Layer Deposition of High-k Oxides of the Group 4 Metals for Memory Applications. *Advanced Engineering Materials*, **2009**, 11, 223-234	3.5	105
479	Atomic layer deposition of TiO2□Nx thin films for photocatalytic applications. *Journal of Photochemistry and Photobiology A: Chemistry*, **2006**, 177, 68-75	4.7	105
478	Ultra-high resolution zone-doubled diffractive X-ray optics for the multi-keV regime. *Optics Express*, **2011**, 19, 175-84	3.3	102
477	Advanced thin film technology for ultrahigh resolution X-ray microscopy. *Ultramicroscopy*, **2009**, 109, 1360-4	3.1	99
476	In Situ Mass Spectrometry Study on Surface Reactions in Atomic Layer Deposition of Al2O3 Thin Films from Trimethylaluminum and Water. *Langmuir*, **2000**, 16, 4034-4039	4	99
475	Electrodeposition of Cu on Ru Barrier Layers for Damascene Processing. *Journal of the Electrochemical Society*, **2006**, 153, C37	3.9	98
474	Rare-earth oxide thin films as gate oxides in MOSFET transistors. *Journal of Solid State Chemistry*, **2003**, 171, 170-174	3.3	98

473	Atomic Layer Deposition of SrTiO3 Thin Films from a Novel Strontium Precursor Strontium-bis(tri-isopropyl cyclopentadienyl). *Chemical Vapor Deposition*, **2001**, 7, 75-80		96
472	Atomic layer epitaxy growth of titanium dioxide thin films from titanium ethoxide. *Chemistry of Materials*, **1994**, 6, 556-561	9.6	95
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470	Use of 1,1-Dimethylhydrazine in the Atomic Layer Deposition of Transition Metal Nitride Thin Films. *Journal of the Electrochemical Society*, **2000**, 147, 3377	3.9	93
469	In Situ Quadrupole Mass Spectrometry and Quartz Crystal Microbalance Studies on the Atomic Layer Deposition of Titanium Dioxide from Titanium Tetrachloride and Water. *Chemistry of Materials*, **2001**, 13, 4506-4511	9.6	90
468	Development of Dielectric Properties of Niobium Oxide, Tantalum Oxide, and Aluminum Oxide Based Nanolayered Materials. *Journal of the Electrochemical Society*, **2001**, 148, F35	3.9	90
467	Plasma-Enhanced Atomic Layer Deposition of Silver Thin Films. *Chemistry of Materials*, **2011**, 23, 2901-2907	9.6	89
466	Influence of growth temperature on properties of zirconium dioxide films grown by atomic layer deposition. *Journal of Applied Physics*, **2002**, 92, 1833-1840	2.5	89
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464	Atomic layer epitaxy growth of aluminum oxide thin films from a novel Al(CH3)2Cl precursor and H2O. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1997**, 15, 2214-2218	2.9	85
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461	AFM studies on ZnS thin films grown by atomic layer epitaxy. *Applied Surface Science*, **1997**, 120, 43-50	6.7	82
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459	Thermal study on electrospun polyvinylpyrrolidone/ammonium metatungstate nanofibers: optimising the annealing conditions for obtaining WO3 nanofibers. *Journal of Thermal Analysis and Calorimetry*, **2011**, 105, 73-81	4.1	79
458	Lithium Phosphate Thin Films Grown by Atomic Layer Deposition. *Journal of the Electrochemical Society*, **2012**, 159, A259-A263	3.9	77
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454	Atomic force microscopy study of titanium dioxide thin films grown by atomic layer epitaxy. *Thin Solid Films*, **1993**, 228, 32-35	2.2	76
453	Atomic Layer Deposition of Crystalline MoS2 Thin Films: New Molybdenum Precursor for Low-Temperature Film Growth. *Advanced Materials Interfaces*, **2017**, 4, 1700123	4.6	75
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447	Surface chemistry, reactivity, and pore structure of porous silicon oxidized by various methods. *Langmuir*, **2012**, 28, 10573-83	4	70
446	Atomic layer deposition of TiO2 thin films from TiI4 and H2O. *Applied Surface Science*, **2002**, 193, 277-286	6.7	69
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443	Ruthenium/aerogel nanocomposites via atomic layer deposition. *Nanotechnology*, **2007**, 18, 055303	3.4	68
442	The preparation of reusable magnetic and photocatalytic composite nanofibers by electrospinning and atomic layer deposition. *Nanotechnology*, **2009**, 20, 035602	3.4	67
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433	Atomic layer deposited thin films for corrosion protection. *European Physical Journal Special Topics*, **1999**, 09, Pr8-493-Pr8-499		63
432	Exploitation of atomic layer deposition for nanostructured materials. *Materials Science and Engineering C*, **2007**, 27, 1504-1508	8.3	62
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418	H2S modified atomic layer deposition process for photocatalytic TiO2 thin films. *Journal of Materials Chemistry*, **2007**, 17, 1361-1371		57
417	Novel mixed alkylamido-cyclopentadienyl precursors for ALD of ZrO2 thin films. *Journal of Materials Chemistry*, **2008**, 18, 5243		56
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415	Properties of HfO[sub 2] Thin Films Grown by ALD from Hafnium tetrakis(ethylmethylamide) and Water. *Journal of the Electrochemical Society*, **2004**, 151, F189	3.9	56
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402	In Situ Mass Spectrometry Study on Atomic Layer Deposition from Metal (Ti, Ta, and Nb) Ethoxides and Water. *Chemistry of Materials*, **2001**, 13, 817-823	9.6	52

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399	Corrosion protection of aluminium by ultra-thin atomic layer deposited alumina coatings. *Corrosion Science*, **2016**, 106, 16-24	6.8	50
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392	Atomic Layer Deposition of BaTiO3 Thin Films Effect of Barium Hydroxide Formation. *Chemical Vapor Deposition*, **2007**, 13, 239-246		49
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364	Atomic Layer Deposition of Hafnium Dioxide Films Using Hafnium Bis(2-butanolate)bis(1-methoxy-2-methyl-2-propanolate) and Water. *Chemical Vapor Deposition*, **2003**, 9, 315-320		43
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