

# Arvo Kikas

## List of Publications by Year in descending order

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109  
papers

2,246  
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186254

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110  
docs citations

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times ranked

2146  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mesoporous textured Fe-N-C electrocatalysts as highly efficient cathodes for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2022, 520, 230819.	7.8	46
2	Liquid-assisted grinding/compression: a facile mechanosynthetic route for the production of high-performing Co-N-C electrocatalyst materials. <i>Green Chemistry</i> , 2022, 24, 305-314.	9.0	8
3	Transition metal and nitrogen-doped mesoporous carbons as cathode catalysts for anion-exchange membrane fuel cells. <i>Applied Catalysis B: Environmental</i> , 2022, 306, 121113.	20.2	42
4	Nitrogen and Phosphorus Dual-Doped Silicon Carbide-Derived Carbon/Carbon Nanotube Composite for the Anion-Exchange Membrane Fuel Cell Cathode. <i>ACS Applied Energy Materials</i> , 2022, 5, 2949-2958.	5.1	21
5	Polypyrrole and Polythiophene Modified Carbon Nanotube-Based Cathode Catalysts for Anion Exchange Membrane Fuel Cell. <i>ChemElectroChem</i> , 2022, 9, .	3.4	9
6	Cobalt-Containing Nitrogen-Doped Carbon Materials Derived from Saccharides as Efficient Electrocatalysts for Oxygen Reduction Reaction. <i>Catalysts</i> , 2022, 12, 568.	3.5	3
7	Characterisation of Novel Nitrogen Doped Reduced Graphene Oxide. <i>ECS Transactions</i> , 2022, 108, 99-109.	0.5	0
8	Electroreduction of oxygen on cobalt phthalocyanine-modified carbide-derived carbon/carbon nanotube composite catalysts. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 57-71.	2.5	37
9	Transition metal-containing nitrogen-doped nanocarbon catalysts derived from 5-methylresorcinol for anion exchange membrane fuel cell application. <i>Journal of Colloid and Interface Science</i> , 2021, 584, 263-274.	9.4	50
10	Transition metal phthalocyanine-modified shungite-based cathode catalysts for alkaline membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 4365-4377.	7.1	36
11	Non-precious metal cathodes for anion exchange membrane fuel cells from ball-milled iron and nitrogen doped carbide-derived carbons. <i>Renewable Energy</i> , 2021, 167, 800-810.	8.9	50
12	Transition-Metal- and Nitrogen-Doped Carbide-Derived Carbon/Carbon Nanotube Composites as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells. <i>ACS Catalysis</i> , 2021, 11, 1920-1931.	11.2	85
13	Multi-purpose heterogeneous catalyst material from an amorphous cobalt metal-organic framework. <i>Materials Advances</i> , 2021, 2, 4009-4015.	5.4	6
14	Bifunctional multi-metallic nitrogen-doped nanocarbon catalysts derived from 5-methylresorcinol. <i>Electrochemistry Communications</i> , 2021, 124, 106932.	4.7	16
15	Silicon carbide-derived carbon electrocatalysts dual doped with nitrogen and phosphorus for the oxygen reduction reaction in an alkaline medium. <i>Electrochemistry Communications</i> , 2021, 125, 106976.	4.7	24
16	Mesoporous iron-nitrogen co-doped carbon material as cathode catalyst for the anion exchange membrane fuel cell. <i>Journal of Power Sources Advances</i> , 2021, 8, 100052.	5.1	43
17	Synthesis and Characterization of Cobalt and Nitrogen Co-Doped Peat-Derived Carbon Catalysts for Oxygen Reduction in Acidic Media. <i>Catalysts</i> , 2021, 11, 715.	3.5	6
18	Bimetal Phthalocyanine-Modified Carbon Nanotube-Based Bifunctional Catalysts for Zinc-Air Batteries. <i>ChemElectroChem</i> , 2021, 8, 2662-2670.	3.4	34

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19	Atomic-layer design and properties of Pr-doped HfO <sub>2</sub> thin films. <i>Journal of Alloys and Compounds</i> , 2021, 868, 159100.	5.5	4
20	Bifunctional Oxygen Electrocatalysis on Mixed Metal Phthalocyanine-Modified Carbon Nanotubes Prepared via Pyrolysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 41507-41516.	8.0	65
21	Iron and cobalt containing electrospun carbon nanofibre-based cathode catalysts for anion exchange membrane fuel cell. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 31275-31287.	7.1	30
22	Oxygen reduction reaction on Pd nanoparticles supported on novel mesoporous carbon materials. <i>Electrochimica Acta</i> , 2021, 394, 139132.	5.2	14
23	Oxygen reduction reaction on Pd nanocatalysts prepared by plasma-assisted synthesis on different carbon nanomaterials. <i>Nanotechnology</i> , 2021, 32, 035401.	2.6	8
24	Multivariable oxygen sensing based on photoluminescence and photoconductivity of TiO <sub>2</sub> nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2020, 303, 127236.	7.8	6
25	Electrocatalytic oxygen reduction reaction on iron phthalocyanine-modified carbide-derived carbon/carbon nanotube composite electrocatalysts. <i>Electrochimica Acta</i> , 2020, 334, 135575.	5.2	50
26	Impact of ball-milling of carbide-derived carbons on the generation of hydrogen peroxide via electroreduction of oxygen in alkaline media. <i>Journal of Electroanalytical Chemistry</i> , 2020, 878, 114690.	3.8	19
27	Electrospun Polyacrylonitrile-Derived Co or Fe Containing Nanofibre Catalysts for Oxygen Reduction Reaction at the Alkaline Membrane Fuel Cell Cathode. <i>ChemCatChem</i> , 2020, 12, 4568-4581.	3.7	31
28	Effects of N and O groups for oxygen reduction reaction on one- and two-dimensional carbonaceous materials. <i>Electrochimica Acta</i> , 2020, 344, 136052.	5.2	23
29	Peat-derived carbon-based non-platinum group metal type catalyst for oxygen reduction and evolution reactions. <i>Electrochemistry Communications</i> , 2020, 113, 106700.	4.7	12
30	Nitrogen-doped carbide-derived carbon/carbon nanotube composites as cathode catalysts for anion exchange membrane fuel cell application. <i>Applied Catalysis B: Environmental</i> , 2020, 272, 119012.	20.2	72
31	Cobalt and Nitrogen Co-Doped Peat Derived Carbon Based Catalysts for Oxygen Reduction. <i>ECS Transactions</i> , 2020, 97, 605-613.	0.5	1
32	Platinum Sputtered on Nb-doped TiO <sub>2</sub> Films Prepared by ALD: Highly Active and Durable Carbon-free ORR Electrocatalyst. <i>Journal of the Electrochemical Society</i> , 2020, 167, 164505.	2.9	13
33	Transition Metal-Containing Nitrogen-Doped Nanocarbons Derived from 5-Methylresorcinol for Anion Exchange Membrane Fuel Cell Application. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 2361-2361.	0.0	0
34	The electronic structure of ionic liquids based on the TFSI anion: A gas phase UPS and DFT study. <i>Journal of Molecular Liquids</i> , 2019, 294, 111580.	4.9	10
35	Sulphur and nitrogen co-doped graphene-based electrocatalysts for oxygen reduction reaction in alkaline medium. <i>Electrochemistry Communications</i> , 2019, 109, 106603.	4.7	46
36	Effect of Ball-Milling on the Oxygen Reduction Reaction Activity of Iron and Nitrogen Co-doped Carbide-Derived Carbon Catalysts in Acid Media. <i>ACS Applied Energy Materials</i> , 2019, 2, 7952-7962.	5.1	36

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37	UPS and DFT investigation of the electronic structure of gas-phase trimesic acid. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2016, 213, 11-16.	1.7	4
38	Study of the structural phase transformation of iron oxide nanoparticles from an Fe <sup>2+</sup> ion source by precipitation under various synthesis parameters and temperatures. <i>Materials Chemistry and Physics</i> , 2015, 149-150, 473-479.	4.0	37
39	The benefit of the European User Community from transnational access to national radiation facilities. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 638-639.	2.4	2
40	In Situ XPS Studies of Electrochemically Negatively Polarized Molybdenum Carbide Derived Carbon Double Layer Capacitor Electrode. <i>Journal of the Electrochemical Society</i> , 2013, 160, A1084-A1093.	2.9	25
41	Electronic structure of LBO and BBO as revealed by boron and oxygen RIXS spectra. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 188, 32-37.	1.7	1
42	Structural and Magnetic Studies on Iron Oxide and Iron-Magnesium Oxide Thin Films Deposited Using Ferrocene and (Dimethylaminomethyl)ferrocene Precursors. <i>ECS Journal of Solid State Science and Technology</i> , 2013, 2, N45-N54.	1.8	23
43	Effect of different annealing temperatures and SiO <sub>2</sub> /Si(100) substrate on the properties of nickel containing titania thin sol-gel films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 953-965.	1.8	10
44	Vacuum ultraviolet and X-ray emission spectroscopy of anion and cation excitons in oxide crystals. <i>Journal of Surface Investigation</i> , 2012, 6, 100-105.	0.5	1
45	The sub-bandgap energy loss satellites in the RIXS spectra of beryllium compounds. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2011, 184, 366-370.	1.7	2
46	Effect of cobalt doping and annealing on properties of titania thin films prepared by sol-gel process. <i>Applied Surface Science</i> , 2011, 257, 6897-6907.	6.1	31
47	Physical and electrochemical characteristics of supercapacitors based on carbide derived carbon electrodes in aqueous electrolytes. <i>Journal of Power Sources</i> , 2011, 196, 4109-4116.	7.8	94
48	Combined luminescence and X-ray emission study of self-trapped excitons in oxides. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 15, 012088.	0.6	2
49	Electron spectroscopic study of passive oxide layer formation on Fe-19Cr-18Ni-1Al-TiC austenitic stainless steel. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010, 182, 108-114.	1.7	6
50	Influence of the heating temperature on the properties of nickel doped TiO <sub>2</sub> films prepared by sol-gel method. <i>Applied Surface Science</i> , 2010, 256, 4538-4542.	6.1	12
51	Resonant inelastic x-ray scattering and UV-VUV luminescence at the Be 1s edge in BeO. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 375505.	1.8	2
52	Pt coated Cr <sub>2</sub> O <sub>3</sub> thin films for resistive gas sensors. <i>Open Physics</i> , 2009, 7, .	1.7	3
53	Surface analysis of spray deposited copper indium disulfide films. <i>Thin Solid Films</i> , 2008, 516, 7110-7115.	1.8	42
54	Substrate-induced effects in the creation and decay of potassium 2p core excitations in ultrathin films of KCl on copper. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 145206.	1.8	6

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55	Effect of phase composition on X-ray absorption spectra of ZrO <sub>2</sub> thin films. Journal of Electron Spectroscopy and Related Phenomena, 2007, 156-158, 303-306.	1.7	13
56	Substrate-induced effects in the creation and decay of core excitations in ultrathin films of potassium chloride on copper. Journal of Electron Spectroscopy and Related Phenomena, 2007, 156-158, 294-298.	1.7	0
57	Resonant inelastic X-ray scattering at the Be 1s edge in BeO. Journal of Electron Spectroscopy and Related Phenomena, 2007, 156-158, 299-302.	1.7	6
58	XPS and AFM investigation of hafnium dioxide thin films prepared by atomic layer deposition on silicon. Journal of Electron Spectroscopy and Related Phenomena, 2007, 156-158, 150-154.	1.7	16
59	Inner-shell excitation of intrinsic luminescence and resonantly excited X-ray fluorescence at Be 1s edge in oriented BeO crystals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 172-175.	1.6	4
60	Resonant inelastic X-ray scattering at the K edge of oxygen and fluorine in insulators. Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 845-848.	1.7	3
61	Engineering structure and properties of hafnium oxide films by atomic layer deposition temperature. Thin Solid Films, 2005, 479, 1-11.	1.8	36
62	Insulating properties of ultrathin KF layers on Cu(100): Resonant Auger spectroscopy. Surface Science, 2005, 584, 49-54.	1.9	8
63	Resonant inelastic x-ray scattering at the F1s photoabsorption edge in LiF: Interplay of excitonic and conduction states, and Stokes' doubling. Physical Review B, 2004, 70, .	3.2	10
64	Potential barrier effects in Cs 3d resonance photoemission of CsF. Journal of Electron Spectroscopy and Related Phenomena, 2004, 137-140, 377-381.	1.7	3
65	Effects of precursors on nucleation in atomic layer deposition of HfO <sub>2</sub> . Applied Surface Science, 2004, 230, 292-300.	6.1	39
66	Limitations of the ionic model in describing core-hole decay: molecular versus crystalline KCl. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, L85-L91.	1.5	15
67	Na K PHOTOABSORPTION AND RESONANT KLL AUGER SPECTRA IN NaF AND NaCl. Surface Review and Letters, 2002, 09, 1303-1308.	1.1	3
68	Study of Thin Oxide Films by Electron, Ion and Synchrotron Radiation Beams. Mikrochimica Acta, 2002, 139, 165-169.	5.0	13
69	Core excitons in NaK photoabsorption of NaF: Resonant Auger spectroscopy. Physical Review B, 2001, 64, .	3.2	13
70	Multi-atom resonant photoemission in transition metal chlorides. Solid State Communications, 2000, 115, 275-279.	1.9	20
71	Vibrationally selective resonant Auger spectroscopy in CO: evidence of the valence character of the 3s 'Rydberg level'. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 267-275.	1.5	6
72	Resonant photoemission of CoCl <sub>2</sub> . Journal of Electron Spectroscopy and Related Phenomena, 1999, 101-103, 745-749.	1.7	6

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73	Resonant auger spectra of TiO <sub>2</sub> at Ti2p and O1s absorption edges. Journal of Electron Spectroscopy and Related Phenomena, 1998, 93, 193-199.	1.7	14
74	Angle-resolved spectator decay of vibrationally selected C 1s(2f) excited states in carbon monoxide. Journal of Electron Spectroscopy and Related Phenomena, 1998, 95, 25-36.	1.7	12
75	Continuum resonance in ethylene: Evidence from vibrationally resolved core photoionization. Physical Review A, 1998, 58, 1879-1884.	2.5	28
76	Influences from the C1s shape resonance on the vibrational progression in the Auger decay of CO. Physical Review A, 1998, 58, 2037-2042.	2.5	19
77	Auger decay of core-excited higher Rydberg states of carbon monoxide. Journal of Physics B: Atomic, Molecular and Optical Physics, 1997, 30, 4267-4278.	1.5	14
78	Vibrationally selective resonant Auger spectroscopy of the 3p core-to-Rydberg excitation in CO. Physical Review A, 1997, 56, 480-487.	2.5	17
79	The vibrationally resolved C 1s core photoelectron spectra of methane and ethane. Journal of Chemical Physics, 1997, 106, 1661-1668.	3.0	69
80	Collapse of Vibrational Structure in the Auger Resonant Raman Spectrum of CO by Frequency Detuning. Physical Review Letters, 1997, 79, 1451-1454.	7.8	85
81	Ti 2p and O 1s X-ray absorption of TiO <sub>2</sub> polymorphs. Solid State Communications, 1997, 104, 199-203.	1.9	105
82	High-resolution study of the correlation satellites in photoelectron spectra of the rare gases. Journal of Electron Spectroscopy and Related Phenomena, 1996, 77, 241-266.	1.7	116
83	Site-selective participator decay of core-excited butadiene. Journal of Chemical Physics, 1996, 105, 10719-10724.	3.0	15
84	Interplay of atomic and solid-state effects in inner-shell-resonant photoelectron spectra. Physical Review B, 1996, 53, R5978-R5981.	3.2	7
85	Auger decay of the dissociating core-excited states in the HCl and DCl molecules. Journal of Chemical Physics, 1996, 104, 4475-4480.	3.0	51
86	Auger and photoelectron spectra of K <sup>+</sup> in solids at resonant 2p <sub>6</sub> to 2p <sub>5</sub> 3d excitation. Journal of Electron Spectroscopy and Related Phenomena, 1995, 72, 127-131.	1.7	5
87	L23MM resonant auger spectra of Mn in KMnF <sub>3</sub> . Journal of Electron Spectroscopy and Related Phenomena, 1995, 72, 113-117.	1.7	1
88	MNN resonant Auger spectra of Ce in CeCl <sub>3</sub> . Journal of Electron Spectroscopy and Related Phenomena, 1995, 72, 119-123.	1.7	3
89	3d-Resonant photo- and auger emission of Ce in CeO <sub>2</sub> . Journal of Electron Spectroscopy and Related Phenomena, 1995, 76, 583-587.	1.7	1
90	Appearance of crystal-field splitting in 2p-resonant electron spectra of K <sup>+</sup> in ionic solids. Journal of Electron Spectroscopy and Related Phenomena, 1995, 76, 589-594.	1.7	3

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91	NEXAFS of ionic solids as seen through resonant electron spectra. <i>Physica B: Condensed Matter</i> , 1995, 208-209, 47-48.	2.7	1
92	2p-3d resonant Auger scattering by K <sup>+</sup> ions of KMnF <sub>3</sub> without the influence of the crystal-field splitting. <i>Physical Review B</i> , 1995, 51, 3202-3205.	3.2	6
93	High-resolution photoelectron satellite spectrum of He excited by synchrotron radiation at 96.5 eV photon energy. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1995, 28, L293-L297.	1.5	17
94	K <sup>+</sup> LMM resonant Auger spectra of solid KF. <i>Physical Review B</i> , 1994, 50, 9079-9085.	3.2	10
95	M <sub>4,5</sub> N <sub>4,5</sub> N <sub>4,5</sub> Auger decay spectra of the resonantly excited 3d <sup>9</sup> 4f configuration of xenon-like ions in solids. <i>Physical Review B</i> , 1994, 49, 14836-14844.	3.2	7
96	Character of F core excitons in alkali fluorides studied by resonant Auger spectroscopy. <i>Physical Review B</i> , 1994, 49, 3116-3123.	3.2	22
97	Auger decay processes of resonantly excited 3d <sup>n</sup> 14f configuration of xenon-like ions in solids. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1994, 68, 277-286.	1.7	5
98	Autoionization phenomena involving the 2p <sup>5</sup> 3d configuration of argon-like ions in ionic solids. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1994, 68, 287-296.	1.7	8
99	Autoionization phenomena involving the 2p <sup>5</sup> 3d configuration of argon-like ions in ionic solids. <i>Physical Review B</i> , 1993, 47, 11736-11748.	3.2	61
100	Auger Decay of K <sup>+</sup> L <sub>23</sub> Excitations in Potassium Halides. <i>Physica Scripta</i> , 1992, T41, 237-240.	2.5	5
101	Probing of electron-phonon scattering in ionic solids by XUV-induced electron emission spectroscopy. <i>Surface Science</i> , 1992, 269-270, 583-589.	1.9	2
102	Auger Transitions as Luminescence Killers in Ionic Solids. <i>Physica Scripta</i> , 1992, T41, 19-22.	2.5	1
103	Monte Carlo simulation of the cross-luminescence excitation spectrum in a CsBr crystal. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1991, 308, 211-214.	1.6	2
104	Auger Spectra of K <sup>+</sup> L <sub>23</sub> Excitations in Potassium Halides. <i>Europhysics Letters</i> , 1991, 15, 683-686.	2.0	9
105	Secondary photoelectron spectra of NaCl and KBr excited by XUV radiation: Experiments and computer simulations. <i>Solid State Communications</i> , 1990, 76, 1383-1386.	1.9	4
106	Monte Carlo simulation of the crossluminescence excitation spectrum in a CSBR crystal. <i>Solid State Communications</i> , 1990, 76, 1313-1316.	1.9	10
107	Monte Carlo Simulation of Electron-Phonon Scattering in the XUV-Induced Electron Emission of NaCl. <i>Physica Status Solidi (B): Basic Research</i> , 1986, 137, 495-500.	1.5	15
108	Monte Carlo Simulation of the Production of Charge Carriers in NaCl Crystals by XUV Irradiation. <i>Physica Status Solidi (B): Basic Research</i> , 1985, 130, 211-218.	1.5	14

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109	The quantum yield spectra of electron emission of solids in XUV region. Physica Status Solidi (B): Basic Research, 1982, 114, 487-493.	1.5	9