

# Krzysztof Fronc

## List of Publications by Year in descending order

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116  
papers

1,321  
citations

394421  
19  
h-index

434195  
31  
g-index

118  
all docs

118  
docs citations

118  
times ranked

1815  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis and characterization of Gd <sub>2</sub> O <sub>3</sub> : Er <sup>3+</sup> , Yb <sup>3+</sup> doped with Mg <sup>2+</sup> , Li <sup>+</sup> ions effect on the photoluminescence and biological applications. <i>Nanotechnology</i> , 2021, 32, 245705.	2.6	5
2	The ROS-generating photosensitizer-free NaYF <sub>4</sub> :Yb,Tm@SiO <sub>2</sub> upconverting nanoparticles for photodynamic therapy application. <i>Nanotechnology</i> , 2021, 32, 475101.	2.6	13
3	Devitrification of thin film Cu-Zr metallic glass via ultrashort pulsed laser annealing. <i>Journal of Alloys and Compounds</i> , 2021, 887, 161437.	5.5	7
4	Structural, optical and magnetic properties of Y <sub>3</sub> O <sub>2</sub> x Al <sub>5</sub> O <sub>12</sub> (0<x<0.20) nanocrystals: effect of Yb content. <i>Nanotechnology</i> , 2020, 31, 225711.	2.6	10
5	Yttrium-Doped Iron Oxide Nanoparticles for Magnetic Hyperthermia Applications. <i>Journal of Physical Chemistry C</i> , 2020, 124, 6871-6883.	3.1	44
6	Influence of copper dopants on the photoluminescence of single CdTe quantum dots. <i>Journal of Applied Physics</i> , 2020, 127, 024306.	2.5	0
7	Copper Doping of Low-Dimensional Se-Based Semiconductor Structures Grown by Molecular Beam Epitaxy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19938-19944.	3.1	0
8	Single-step synthesis of Er <sup>3+</sup> and Yb <sup>3+</sup> ions doped molybdate/Gd <sub>2</sub> O <sub>3</sub> core-shell nanoparticles for biomedical imaging. <i>Nanotechnology</i> , 2018, 29, 025702.	2.6	16
9	Preliminary Measurements of Magnetic Nanoparticles as Potential Biomarkers for Impedance Flow Cytometry. , 2018, .		0
10	Photoluminescence and Thermoluminescence of the Oxygen-Deficient YAG, YAP, and YAM Phosphors. <i>Acta Physica Polonica A</i> , 2018, 133, 977-980.	0.5	11
11	Upconversion fluorescence imaging of HeLa cells using ROS generating SiO <sub>2</sub> -coated lanthanide-doped NaYF <sub>4</sub> nanoconstructs. <i>RSC Advances</i> , 2017, 7, 30262-30273.	3.6	27
12	Molecularly imprinted polymer based extended-gate field-effect transistor chemosensors for phenylalanine enantioselective sensing. <i>Journal of Materials Chemistry C</i> , 2017, 5, 969-977.	5.5	46
13	Mammalian cell defence mechanisms against the cytotoxicity of NaYF <sub>4</sub> :(Er,Yb,Gd) nanoparticles. <i>Nanoscale</i> , 2017, 9, 14259-14271.	5.6	18
14	The synthesis, characterization and ZnS surface passivation of polycrystalline ZnO films obtained by the spin-coating method. <i>Journal of Alloys and Compounds</i> , 2017, 695, 1196-1204.	5.5	10
15	Synthesis and magnetooptic characterization of Cu-doped ZnO/MgO and ZnO/oleic acid core/shell nanoparticles. <i>RSC Advances</i> , 2016, 6, 44820-44825.	3.6	7
16	Molecularly Imprinted Polymer (MIP) Film with Improved Surface Area Developed by Using Metal-Organic Framework (MOF) for Sensitive Lipocalin (NGAL) Determination. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 19860-19865.	8.0	61
17	Optical signatures of spin-dependent coupling in semimagnetic quantum dot molecules. <i>Physical Review B</i> , 2015, 92, .	3.2	0
18	Photoluminescence study of the increased hole confinement in CdTe quantum dots (Presentation) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50		

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19	Extended-gate field-effect transistor (EG-FET) with molecularly imprinted polymer (MIP) film for selective inosine determination. <i>Biosensors and Bioelectronics</i> , 2015, 74, 526-533.	10.1	39
20	Engineering the hole confinement for CdTe-based quantum dot molecules. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	2
21	Fluorescence resonance energy transfer between ZnO/MgO/carboxymethyl- $\beta$ -cyclodextrin and Nile Red in HeLa cells – biosensing applications. <i>RSC Advances</i> , 2015, 5, 1323-1330.	3.6	2
22	Facile synthesis of core/shell ZnO/ZnS nanofibers by electrospinning and gas-phase sulfidation for biosensor applications. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 24029-24037.	2.8	33
23	Upconverting/magnetic: Gd <sub>2</sub> O <sub>3</sub> :(Er <sup>3+</sup> , Yb <sup>3+</sup> , Zn <sup>2+</sup> ) nanoparticles for biological applications: effect of Zn <sup>2+</sup> doping. <i>RSC Advances</i> , 2015, 5, 78361-78373.	3.6	33
24	Stark spectroscopy of CdTe and CdMnTe quantum dots embedded in n-i-p diodes. <i>Journal of Applied Physics</i> , 2014, 115, 203512.	2.5	2
25	Surface defect states in MBE-grown CdTe layers. , 2014, , .		1
26	Synthesis of ZnAl <sub>2</sub> O <sub>4</sub> :(Er <sup>3+</sup> , Yb <sup>3+</sup> ) spinel-type nanocrystalline upconverting luminescent marker in HeLa carcinoma cells, using a combustion aerosol method route. <i>RSC Advances</i> , 2014, 4, 56596-56604.	3.6	29
27	Thermoluminescent properties of Mn-doped YAP synthesized by the solution combustion method. <i>Optical Materials</i> , 2014, 37, 125-131.	3.6	10
28	Electrical Conduction of a Single Electrospun $\text{ZnO}$ Nanofiber. <i>Journal of the American Ceramic Society</i> , 2014, 97, 1157-1163.	3.8	9
29	Imaging in Nanoscale Using Laser-Plasma Sources of Extreme Ultraviolet (EUV). <i>Springer Proceedings in Physics</i> , 2014, , 269-276.	0.2	1
30	Stability of ZnO nanofibers in processing liquid agents. <i>Materials Science-Poland</i> , 2013, 31, 312-317.	1.0	2
31	Transport of NaYF <sub>4</sub> :Er <sup>3+</sup> , Yb <sup>3+</sup> up-converting nanoparticles into HeLa cells. <i>Nanotechnology</i> , 2013, 24, 235702.	2.6	28
32	Study of crystalline thin films and nanofibers by means of the laser plasma EUV-source based microscopy. <i>Radiation Physics and Chemistry</i> , 2013, 93, 54-58.	2.8	5
33	Light- and environment-sensitive electrospun ZnO nanofibers. <i>RSC Advances</i> , 2013, 3, 5656.	3.6	16
34	Structural studies of magnetic Fe doped ZnO nanofibers. <i>Radiation Physics and Chemistry</i> , 2013, 93, 21-24.	2.8	3
35	Luminescence of colloidal ZnO nanoparticles synthesized in alcohols and biological application of ZnO passivated by MgO. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 194104.	1.8	9
36	Novel ZnO/MgO/Fe <sub>2</sub> O <sub>3</sub> composite optomagnetic nanoparticles. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 194105.	1.8	5

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37	Influence of exciton spin relaxation on the photoluminescence spectra of semimagnetic quantum dots. Physical Review B, 2013, 87, .	3.2	13
38	Synthesis and properties of nanocoral ZnO structures. Materials Research Society Symposia Proceedings, 2013, 1552, 113-118.	0.1	0
39	Optical study of electron-electron exchange interaction in CdTe/ZnTe quantum dots. Physical Review B, 2013, 87, .	3.2	15
40	Temperature dependences of surface magnetoelastic constants of ultrathin Fe/GaAs (001) films. Low Temperature Physics, 2012, 38, 839-842.	0.6	1
41	Surface potential measurements of a single ZnO nanofiber. , 2012, , .		1
42	Technology of ZnO nanofibers based devices. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 1299-1303.	3.5	6
43	The growth kinetics of colloidal ZnO nanoparticles in alcohols. Journal of Sol-Gel Science and Technology, 2012, 61, 197-205.	2.4	20
44	Magnetic Fe doped ZnO nanofibers obtained by electrospinning. Journal of Sol-Gel Science and Technology, 2012, 61, 494-500.	2.4	34
45	Magnetoplasmons in a High Electron Mobility GaAs/AlGaAs Heterostructure. Acta Physica Polonica A, 2012, 122, 1096-1098.	0.5	1
46	Magnetophotoluminescence study of intershell exchange interaction in CdTe/ZnTe quantum dots. Physical Review B, 2011, 84, .	3.2	36
47	Tunable Resonant Detection of sub-THz Radiation with GaAs $\text{AlGaAs}$ High Electron Mobility Transistors at Magnetic Fields., 2011, , .	0	
48	A novel electrospun ZnO nanofibers biosensor fabrication. Sensors and Actuators B: Chemical, 2011, 160, 1413-1418.	7.8	41
49	Tuning the inter-shell splitting in self-assembled CdTe quantum dots. Applied Physics Letters, 2011, 99, .	3.3	10
50	Stark spectroscopy and radiative lifetimes in single self-assembled CdTe quantum dots. Physical Review B, 2011, 83, . Magnetic polaron formation and exciton spin relaxation in single Cd $\text{mml:math}$ $\text{xmlNs:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"inline"}$ $<\text{mml:mrow}><\text{mml:msub}><\text{mml:mrow}$ $/><\text{mml:mrow}><\text{mml:mn}>1</\text{mml:mn}><\text{mml:mo}>\wedge^</\text{mml:mo}><\text{mml:mi}>x</\text{mml:mi}></\text{mml:mrow}></\text{mml:msub}><\text{mml:mrow}>$ $\text{xmlNs:mml}=\text{"http://www.w3.org/1998/Math/MathML"}$ $\text{display}=\text{"block"}$ $<\text{mml:mrow}><\text{mml:msub}><\text{mml:mrow}$ $<\text{mml:mrow}><\text{mml:mi}>x</\text{mml:mi}></\text{mml:mrow}>$	3.2	17
51	Morphology and Selected Properties of Core/Shell ZnTe-Based Nanowire Structures Containing ZnO. Acta Physica Polonica A, 2011, 119, 612-614.	0.5	3
53	Influence of Configuration Mixing on Energies and Recombination Dynamics of Excitonic States in CdTe/ZnTe Quantum Dots. Acta Physica Polonica A, 2011, 119, 615-617.	0.5	7
54	Spectroscopy of Indirect Excitons in Vertically Stacked CdTe Quantum Dot Structures. Acta Physica Polonica A, 2011, 120, 856-858.	0.5	2

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55	Quantum effects in linear and nonlinear transport of T-shaped ballistic junction patterned from GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As heterostructures. <i>Physical Review B</i> , 2010, 81, .	3.2	2
56	Double-frequency external cavity laser with a singular optical semiconductor amplifier. <i>Opto-electronics Review</i> , 2009, 17, .	2.4	0
57	Physical Properties of ZnCoO Tetrapods and Nanofibers. <i>Acta Physica Polonica A</i> , 2009, 116, 868-870.	0.5	2
58	Magnetic Force Microscopy Study of Zn <sub>1-x</sub> CoxO Nanowires Grown by Rapid Thermal Evaporation. <i>Acta Physica Polonica A</i> , 2009, 116, 865-867.	0.5	0
59	0.7 anomaly and magnetotransport of disordered quantum wires. <i>Europhysics Letters</i> , 2008, 82, 27003.	2.0	4
60	Photoluminescence Properties of ZnO Nanowires Grown on Ni Substrate. <i>Acta Physica Polonica A</i> , 2008, 114, 1451-1456.	0.5	5
61	Atomic Force Microscopy Study of a Voltage Effect on CdZnTe Crystal Dimensions. <i>Acta Physica Polonica A</i> , 2008, 114, 1041-1047.	0.5	0
62	Mechanical and Electrical Properties of ZnO-Nanowire/Si-Substrate Junctions Studied by Scanning Probe Microscopy. <i>Acta Physica Polonica A</i> , 2007, 112, 255-260.	0.5	2
63	Photoluminescence Properties of ZnO and ZnCdO Nanowires. <i>Acta Physica Polonica A</i> , 2007, 112, 357-362.	0.5	5
64	Magnetic stripe domains in Fe/Fe <sub>x</sub> N multilayers. <i>Journal of Alloys and Compounds</i> , 2006, 423, 172-175.	5.5	6
65	Conductivity switching effect in Cd <sub>1-x</sub> Zn <sub>x</sub> Te films. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 1197-1200.	0.8	9
66	Quantum nanostructures of paraelectric PbTe. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 35, 332-337.	2.7	9
67	Magnetoresistance measurements on Fe/Si and Fe/Ge multilayer thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 286, 91-94.	2.3	5
68	Morphology Of CdTe/ZnTe Self-Assembled Quantum Dots Studied By Excitation Spectroscopy. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	0
69	Orientation and layer thickness dependence on the longitudinal magnetization and transverse magnetization hysteresis loops of sputtered multilayer Fe/Si and Fe/Ge thin films. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 4121-4129.	1.8	6
70	Exciton spin relaxation in quasiresonantly excited CdTe-ZnTe self-assembled quantum dots. <i>Physical Review B</i> , 2004, 70, .	3.2	19
71	Publisher's Note: Exciton spin relaxation in quasiresonantly excited CdTe/ZnTe self-assembled quantum dots [Phys. Rev. B70, 245312 (2004)]. <i>Physical Review B</i> , 2004, 70, .	3.2	0
72	Resonant spectroscopy of II-VI self-assembled quantum dots: Excited states and exciton-longitudinal optical phonon coupling. <i>Physical Review B</i> , 2004, 70, .	3.2	30

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73	Spin Filtering in a Hybrid Ferromagnetic-Semiconductor Microstructure. <i>Physical Review Letters</i> , 2004, 93, 246601.	7.8	43
74	Optical studies of spin relaxation in CdTe self-assembled quantum dots. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 937-940.	0.8	2
75	Magnetic anisotropy and magnetoelastic constants of ultrathin Fe/GaAs(001) films sputtered in hydrogen atmosphere. <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 283, 28-33.	2.3	10
76	Unidirectional transmission of electrons in a magnetic field gradient. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 21, 451-455.	2.7	4
77	Study of Fe/Si multilayers by photoemission spectroscopy. <i>Journal of Alloys and Compounds</i> , 2004, 362, 202-205.	5.5	13
78	Interlayer Magnetic Coupling for Fe/Si Multilayers. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 205-208.	0.5	4
79	FMR and SMFMR investigation of epitaxial Fe/GaAs(001) thin films with Si and Ge overlayer. <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 260, 386-392.	2.3	13
80	Spontaneous and field-induced magnetic configurations in a Fe/Si/Fe trilayer with ferromagnetic interlayer exchange. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 8969-8977.	1.8	1
81	Resonant photoluminescence and excitation spectroscopy of CdSe/ZnSe and CdTe/ZnTe self-assembled quantum dots. <i>Materials Research Society Symposia Proceedings</i> , 2002, 737, 248.	0.1	0
82	Noncollinear magnetic structures in an Fe/Si/Fe film with a ferromagnetic interlayer exchange interaction. <i>Low Temperature Physics</i> , 2002, 28, 639-641.	0.6	3
83	Exciton Spectroscopy of Single CdTe and CdMnTe Quantum Dots. <i>Physica Status Solidi (B): Basic Research</i> , 2002, 229, 493-496.	1.5	23
84	Thickness dependence of magnetic anisotropy and magnetoelastic constants in epitaxial Fe/GaAs (001) thin films. <i>European Physical Journal D</i> , 2002, 52, A169-A172.	0.4	7
85	$\frac{1}{4}$ -Luminescence study of hybrid ferromagnet/diluted magnetic semiconductor quantum structures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 13, 560-563.	2.7	4
86	Magnetooptical studies of the H-T phase diagram of an Fe/Si multilayered film. <i>Low Temperature Physics</i> , 2001, 27, 655-661.	0.6	3
87	Microluminescence from a diluted magnetic semiconductor quantum well in a proximity of an iron micromagnet. <i>Solid State Communications</i> , 2001, 120, 35-39.	1.9	9
88	2D and 1D electron transport in hybrid ferromagnet-semiconductor microstructures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 10, 91-96.	2.7	14
89	Magneto-Optical Investigation of H-T Phase Diagram in Fe/Si Multilayers. <i>Materials Science Forum</i> , 2001, 373-376, 489-492.	0.3	0
90	FMR Investigation of In-Plane Magnetic Anisotropy and Interlayer Coupling in Fe/Si/Fe Trilayers. <i>Materials Science Forum</i> , 2001, 373-376, 141-144.	0.3	4

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91	Cathodoluminescence study of diluted magnetic semiconductor quantum well/micromagnet hybrid structures. <i>Applied Physics Letters</i> , 2001, 79, 1789-1791.	3.3	53
92	Thickness dependence of cubic anisotropy constant in sputtered Fe films on GaAs substrates. <i>Physica B: Condensed Matter</i> , 2000, 284-288, 1237-1238.	2.7	5
93	XPS analysis of surface compositional changes in $\text{InSb}_{1-x}\text{Bi}_x$ (111) due to low-energy Ar+ ion bombardment. <i>Applied Surface Science</i> , 2000, 153, 193-199.	6.1	10
94	Formation of noncollinear spin configurations during magnetization reversal in multilayered Fe/Si films. <i>Journal of Magnetism and Magnetic Materials</i> , 2000, 213, 19-24.	2.3	6
95	Inelastic cross-sections and natural lifetimes for the 62D3/2, 5/2 and 82S1/2 states of Rb. <i>European Physical Journal D</i> , 2000, 8, 49-58.	1.3	9
96	Excitation transfer between the rubidium 52D fine-structure levels in collisions with ground-state rubidium atoms: Experiment and theory. <i>Physical Review A</i> , 2000, 62, .	2.5	3
97	<title>Liquid-phase epitaxial growth and characterization of In(Sb,Bi)</title>., 1999, , .		3
98	Low temperature enhancement of the magnetic anisotropy in Fe/Si multilayers. <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 196-197, 83-84.	2.3	1
99	XPS and XRD study of crystalline 3C-SiC grown by sublimation method. <i>Journal of Alloys and Compounds</i> , 1999, 286, 143-147.	5.5	103
100	Application of in situ surface scraping for extracting bulk component of XPS signal – example of LiNbO <sub>3</sub> and GaSb. <i>Journal of Alloys and Compounds</i> , 1999, 286, 162-166.	5.5	16
101	Fine-structure mixing collisions of Rb(52D) excited in a two-photon transition using external-cavity cw diode laser. , 1999, 3571, 200.		0
102	Magnetic field-induced spin reorientation in gadolinium surface layer of Gd/Fe multilayers. <i>Journal of Magnetism and Magnetic Materials</i> , 1998, 186, 139-153.	2.3	19
103	FMR and SMFMR study of Fe/Si multilayers. <i>European Physical Journal Special Topics</i> , 1998, 08, Pr2-249-Pr2-252.	0.2	2
104	Noncollinear spin configuration induced by a magnetic field in the surface gadolinium layer of multilayered Gd/Fe films. <i>Low Temperature Physics</i> , 1997, 23, 346-348.	0.6	0
105	Magnetostriction of Fe/Gd multilayers. <i>Journal of Magnetism and Magnetic Materials</i> , 1995, 139, 157-161.	2.3	6
106	Magnetic-resonance studies of tellurium-doped Al <sub>x</sub> Ga <sub>1-x</sub> As. <i>Physical Review B</i> , 1994, 50, 2645-2648.	3.2	7
107	Photo-ESR Study of the DX to Shallow Donor Conversion in Te Doped Al <sub>x</sub> Ga <sub>1-x</sub> As. <i>Acta Physica Polonica A</i> , 1993, 84, 757-760.	0.5	0
108	Optical detection of chaotic oscillations owing to impact ionization of donors by hot carriers in GaInAs. <i>Semiconductor Science and Technology</i> , 1992, 7, B483-B485.	2.0	1

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109	Optically detected impact-ionization-related chaotic oscillations in Ga <sub>0.47</sub> In <sub>0.53</sub> As. Physical Review B, 1991, 44, 8357-8360.		3.2	8
110	Thermal index guiding in (AlGa)As proton-isolated lasers: its origins and reduction by post-implantation heat treatment. IEE Proceedings, Part J: Optoelectronics, 1991, 138, 13.		0.4	1
111	Native Defects in Gallium Arsenide Grown by Synthesis, Solute Diffusion Method. Acta Physica Polonica A, 1991, 80, 349-352.		0.5	2
112	Observation of Two-Dimensional Electron Gas in LPE-Grown GaInAs-InP Heterostructures. Acta Physica Polonica A, 1991, 80, 449-452.		0.5	2
113	Impact Ionization Driven Chaotic Photoluminescence Oscillations in Ga <sub>0.47</sub> In <sub>0.53</sub> As. Acta Physica Polonica A, 1991, 80, 271-274.		0.5	0
114	Optically Detected Magnetic Resonance Studies of Te-Related Shallow Donors in Al <sub>x</sub> Ga <sub>1-x</sub> As. Acta Physica Polonica A, 1991, 80, 341-344.		0.5	0
115	Gal <sub>1-x</sub> Al <sub>x</sub> As purification during its liquid phase epitaxial growth in the presence of Yb. Applied Physics Letters, 1989, 54, 700-702.		3.3	14
116	Donor gettering in GaAs by rare-earth elements. Applied Physics Letters, 1988, 53, 761-763.		3.3	34