

# Tomáš Kocourek

## List of Publications by Year in descending order

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113  
papers

1,213  
citations

393982

19  
h-index

476904

29  
g-index

113  
all docs

113  
docs citations

113  
times ranked

1540  
citing authors

#	ARTICLE	IF	CITATIONS
1	Biocompatibility and sp <sup>3</sup> /sp <sup>2</sup> ratio of laser created DLC films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 169, 89-93.	1.7	62
2	Thin organic layers prepared by MAPLE for gas sensor application. Thin Solid Films, 2006, 495, 308-311.	0.8	56
3	Antibacterial, cytotoxicity and physical properties of laser " Silver doped hydroxyapatite layers. Materials Science and Engineering C, 2013, 33, 1242-1246.	3.8	46
4	Cell adhesion and growth on ultrananocrystalline diamond and diamond-like carbon films after different surface modifications. Applied Surface Science, 2014, 297, 95-102.	3.1	46
5	Chromium-doped DLC for implants prepared by laser-magnetron deposition. Materials Science and Engineering C, 2015, 46, 381-386.	3.8	46
6	dFerromagnetic Interface between Nonmagnetic Perovskites. Physical Review Letters, 2012, 109, 127207.	2.9	45
7	Characterization of the bonding structure of nanocrystalline diamond and amorphous carbon films prepared by plasma assisted techniques. Applied Physics A: Materials Science and Processing, 2007, 89, 209-212.	1.1	37
8	MAPLE applications in studying organic thin films. Laser Physics, 2007, 17, 66-70.	0.6	36
9	Antibacterial properties of Ag-doped hydroxyapatite layers prepared by PLD method. Applied Physics A: Materials Science and Processing, 2010, 101, 615-620.	1.1	34
10	Matrix assisted pulsed laser evaporation processing of triacetate-pullulan polysaccharide thin films for drug delivery systems. Applied Surface Science, 2006, 252, 4647-4651.	3.1	31
11	Strain-controlled optical absorption in epitaxial ferroelectric BaTiO <sub>3</sub> films. Applied Physics Letters, 2015, 106, .	1.5	28
12	DLC coating of textile blood vessels using PLD. Applied Physics A: Materials Science and Processing, 2008, 93, 627-632.	1.1	27
13	Thin-Layer Hydroxyapatite Deposition on a Nanofiber Surface Stimulates Mesenchymal Stem Cell Proliferation and Their Differentiation into Osteoblasts. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-10.	3.0	27
14	Diamond/graphite content and biocompatibility of DLC films fabricated by PLD. Applied Physics A: Materials Science and Processing, 2010, 101, 579-583.	1.1	26
15	Study of optical properties and biocompatibility of DLC films characterized by sp <sup>3</sup> bonds. Applied Physics A: Materials Science and Processing, 2013, 112, 143-148.	1.1	26
16	Bonding and bio-properties of hybrid laser/magnetron Cr-enriched DLC layers. Materials Science and Engineering C, 2016, 58, 1217-1224.	3.8	25
17	Deposition of organic metalocomplexes for sensor applications by MAPLE. Sensors and Actuators B: Chemical, 2007, 125, 189-194.	4.0	24
18	Plasma study and deposition of DLC/TiC/Ti multilayer structures using technique combining pulsed laser deposition and magnetron sputtering. Surface and Coatings Technology, 2005, 200, 708-711.	2.2	23

#	ARTICLE	IF	CITATIONS
19	Polypyrrole thin films for gas sensors prepared by Matrix-Assisted Pulsed Laser Evaporation technology: Effect of deposition parameters on material properties. <i>Thin Solid Films</i> , 2009, 517, 2083-2087.	0.8	21
20	Biomedical properties of laser prepared silver-doped hydroxyapatite. <i>Laser Physics</i> , 2011, 21, 1265-1269.	0.6	19
21	Influence of ion bombardment on growth and properties of PLD created DLC films. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 943-947.	1.1	17
22	Matrix assisted pulsed laser evaporation of cinnamate-pullulan and tosylate-pullulan polysaccharide derivative thin films for pharmaceutical applications. <i>Applied Surface Science</i> , 2007, 253, 7755-7760.	3.1	16
23	PLD prepared bioactive BaTiO <sub>3</sub> films on TiNb implants. <i>Materials Science and Engineering C</i> , 2017, 70, 334-339.	3.8	16
24	Laser deposition of cryoglobulin blood proteins thin films by matrix assisted pulsed laser evaporation. <i>Applied Surface Science</i> , 2006, 252, 4652-4655.	3.1	15
25	Hybrid laser technology and doped biomaterials. <i>Applied Surface Science</i> , 2017, 417, 73-83.	3.1	15
26	Optical effects induced by epitaxial tension in lead titanate. <i>Applied Physics Letters</i> , 2018, 112, 031111.	1.5	15
27	Adhesion and differentiation of Saos-2 osteoblast-like cells on chromium-doped diamond-like carbon coatings. <i>Journal of Materials Science: Materials in Medicine</i> , 2017, 28, 17.	1.7	14
28	Negative magnetoresistance in epitaxial films of neodymium nickelate. <i>Physical Review B</i> , 2019, 99, .	1.1	14
29	Evaluation of elastic properties of DLC layers using resonant ultrasound spectroscopy and AFM nanoindentation. <i>Surface and Coatings Technology</i> , 2011, 205, S67-S70.	2.2	13
30	Optical properties of laser-prepared Er- and Er,Yb-doped LiNbO <sub>3</sub> waveguiding layers. <i>Laser Physics</i> , 2013, 23, 105819.	0.6	13
31	Chromium-doped diamond-like carbon films deposited by dual-pulsed laser deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 83-88.	1.1	13
32	Interband transitions in epitaxial ferroelectric films of $\text{NaNbO}_3$ . <i>Physical Review B</i> , 2015, 92, .	1.1	13
33	Comparison of the surface properties of $\text{DLC}$ and ultrananocrystalline diamond films with respect to their bioapplications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 2106-2110.	0.8	12
34	High field magnetoresistance in $\text{CoAlO}$ nanogranular films. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 300, 293-299.	1.0	11
35	Thin layers of bovine serum albumin by matrix assisted pulsed laser evaporation. <i>Applied Surface Science</i> , 2007, 254, 1240-1243.	3.1	11
36	Hybrid laser magnetron technology for carbon composite coating. <i>Laser Physics</i> , 2009, 19, 149-153.	0.6	11

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37	Properties of thin N-type Yb <sub>0.14</sub> Co <sub>4</sub> Sb <sub>12</sub> and P-type Ce <sub>0.09</sub> Fe <sub>0.67</sub> Co <sub>3.33</sub> Sb <sub>12</sub> skutterudite layers prepared by laser ablation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 523-527.	0.9	11
38	Composition, XRD and morphology study of laser prepared LiNbO <sub>3</sub> films. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 883-888.	1.1	11
39	Effect of epitaxy on interband transitions in ferroelectric KNbO <sub>3</sub> . <i>New Journal of Physics</i> , 2015, 17, 043048.	1.2	11
40	KrF laser deposition combined with magnetron sputtering to grow titanium carbide layers. <i>Thin Solid Films</i> , 2006, 506-507, 101-105.	0.8	10
41	Concurrent bandgap narrowing and polarization enhancement in epitaxial ferroelectric nanofilms. <i>Science and Technology of Advanced Materials</i> , 2015, 16, 026002.	2.8	10
42	Dual laser deposition of Ti:DLC composite for implants. <i>Laser Physics</i> , 2016, 26, 105605.	0.6	10
43	Optical properties of epitaxial relaxor ferroelectric PbSc <sub>0.5</sub> Nb <sub>0.5</sub> O <sub>3</sub> films. <i>Applied Physics Letters</i> , 2013, 103, 132901.	1.5	9
44	Ambience-sensitive optical refraction in ferroelectric nanofilms of NaNbO <sub>3</sub> . <i>Science and Technology of Advanced Materials</i> , 2014, 15, 045001.	2.8	9
45	Preliminary Study of Ge-DLC Nanocomposite Biomaterials Prepared by Laser Codeposition. <i>Nanomaterials</i> , 2019, 9, 451.	1.9	9
46	Subpicosecond and enhanced nanosecond PLD to grow ZnO films in nitrogen ambient. <i>Surface and Coatings Technology</i> , 2005, 200, 418-420.	2.2	8
47	Structural and optical properties of Er, Yb co-doped Y <sub>2</sub> O <sub>3</sub> thin films. <i>Applied Surface Science</i> , 2006, 252, 4569-4572.	3.1	8
48	Phase formation and microstructure of boron nitride thin layers deposited using Nd:YAG and KrF lasers. <i>Surface and Coatings Technology</i> , 2006, 200, 6438-6443.	2.2	8
49	Matrix assisted pulsed laser evaporation of pullulan tailor-made biomaterial thin films for controlled drug delivery systems. <i>Journal of Physics: Conference Series</i> , 2007, 59, 144-149.	0.3	8
50	Doped biocompatible layers prepared by laser. <i>Laser Physics</i> , 2010, 20, 562-567.	0.6	8
51	Preliminary comparative study of laser-prepared DLC and Cr-doped DLC for bacteria adhesion. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 1437-1443.	1.1	8
52	Temperature dependence of the optical properties of Ba <sub>0.75</sub> Sr <sub>0.25</sub> TiO <sub>3</sub> thin films. <i>Thin Solid Films</i> , 2014, 571, 416-419.	0.8	8
53	Biological properties of titanium implants covered with hydroxyapatite and zirconia layers by pulsed laser: in vitro study. <i>Journal of Applied Physics</i> , 2006, 99, 014905.	1.1	7
54	Thin films growth parameters in MAPLE; application to fibrinogen. <i>Journal of Physics: Conference Series</i> , 2007, 59, 22-27.	0.3	7

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55	Study of laser created ZRO2 and hydroxyapatite/ZrO2 films for implantology. <i>New Biotechnology</i> , 2007, 24, 103-106.	2.7	7
56	Optical Properties of Ferroelectric Epitaxial K0.5Na0.5NbO3 Films in Visible to Ultraviolet Range. <i>PLoS ONE</i> , 2016, 11, e0153261.	1.1	7
57	Thin TiCN Films Prepared by Hybrid Magnetron-Laser Deposition. <i>Plasma Processes and Polymers</i> , 2007, 4, S651-S654.	1.6	6
58	Diamond-like carbon layers modified by ion bombardment during growth and researched by Resonant Ultrasound Spectroscopy. <i>Applied Surface Science</i> , 2017, 417, 213-217.	3.1	6
59	Multiple optical impacts of anion doping in epitaxial barium titanate films. <i>APL Materials</i> , 2020, 8, .	2.2	6
60	Thin SiC x layers prepared by hybrid laser magnetron deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 93, 633-637.	1.1	5
61	MAPLE activities and applications in gas sensors. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 105, 643-649.	1.1	5
62	Influence of diamond and graphite bonds on mechanical properties of DLC thin films. <i>Journal of Physics: Conference Series</i> , 2015, 594, 012008.	0.3	5
63	Thermo-optical evidence of carrier-stabilized ferroelectricity in ultrathin electrodeless films. <i>Scientific Reports</i> , 2018, 8, 8497.	1.6	5
64	<i>In situ</i> anion-doped epitaxial strontium titanate films. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24796-24800.	1.3	5
65	In-depth distribution of elements and chemical bonds in the surface region of calcium-doped diamond-like carbon films. <i>Applied Surface Science</i> , 2021, 539, 148250.	3.1	5
66	On the Origin of Reduced Cytotoxicity of Germanium-Doped Diamond-Like Carbon: Role of Top Surface Composition and Bonding. <i>Nanomaterials</i> , 2021, 11, 567.	1.9	5
67	Pulsed Laser Deposition of Inorganic and Organic Thin Films for Active Layers of Ozone Sensors. <i>Solid State Phenomena</i> , 2003, 90-91, 541-546.	0.3	4
68	Nanogranular CoAlO films prepared by laser ablation. <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 1617-1620.	0.7	4
69	Thin film gas chemical sensors based on resistive or optical detection (Invited Paper). , 2005, , .		4
70	Polypyrrole active layers of gas sensors prepared by MAPLE technology. <i>Journal of Physics: Conference Series</i> , 2007, 76, 012044.	0.3	4
71	Power factor of very thin thermoelectric layers of different thickness prepared by laser ablation. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 93, 663-667.	1.1	4
72	Optical study of BST films combining ellipsometry and reflectivity. <i>Applied Surface Science</i> , 2009, 255, 5280-5283.	3.1	4

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73	SiC <sub>1-x</sub> Layers Prepared by Hybrid Laser Deposition and PLD. Plasma Processes and Polymers, 2009, 6, S366.	1.6	4
74	Properties of thermoelectric Ce <sub>0.09</sub> Fe <sub>0.67</sub> Co <sub>3.33</sub> Sb <sub>12</sub> /FeSb <sub>2</sub> Te multi-layered structures prepared by laser ablation. Thin Solid Films, 2013, 548, 590-596.	0.8	4
75	Polycrystalline LiNbO <sub>3</sub> thin films characterized by infrared and Raman spectroscopy. Laser Physics, 2014, 24, 025701.	0.6	4
76	Characterization of laser prepared Bi <sub>2</sub> Te <sub>3</sub> nano-layers. Laser Physics, 2015, 25, 015903.	0.6	4
77	Spectroscopic measurements of plasma plume induced during the laser deposition of the hydroxyapatite. European Physical Journal D, 2004, 54, C397-C402.	0.4	3
78	Biological and physical properties of pulsed-Laser-deposited zirconia/hydroxyapatite on titanium: In vitro study. Laser Physics, 2007, 17, 45-49.	0.6	3
79	Highly oriented crystalline Er:YAG and Er:YAP layers prepared by PLD and annealing. Applied Surface Science, 2009, 255, 5292-5294.	3.1	3
80	Study of Yb-Doped CoSb <sub>3</sub> Thermoelectric Thin Films Prepared by Laser. Applied Mechanics and Materials, 2015, 749, 46-50.	0.2	3
81	Effects of doping and epitaxy on optical behavior of NaNbO <sub>3</sub> films. Applied Physics Letters, 2015, 107, 172906.	1.5	3
82	Laser-deposited thin films for butane detection. Laser Physics, 2006, 16, 217-222.	0.6	2
83	Silver-doped metal layers for medical applications. Laser Physics, 2014, 24, 085602.	0.6	2
84	Polarized Raman scattering study of PSN single crystals and epitaxial thin films. Journal of Advanced Dielectrics, 2015, 05, 1550013.	1.5	2
85	Scanning Thermal Microscopy of Thermoelectric Nanostructures. Journal of Electronic Materials, 2016, 45, 1734-1739.	1.0	2
86	Textile blood vessels coated with DLC. IFMBE Proceedings, 2009, , 2173-2174.	0.2	2
87	Hybrid polar state in epitaxial (111) PbSc <sub>0.5</sub> Nb <sub>0.5</sub> O <sub>3</sub> relaxor ferroelectric films. Physical Review Materials, 2019, 3, .	0.9	2
88	Effect of diamond-like carbon doped with chromium on cell differentiation, immune activation and apoptosis. , 2020, 40, 276-302.		2
89	Large Negative Photoresistivity in Amorphous NdNiO <sub>3</sub> Film. Coatings, 2021, 11, 1411.	1.2	2
90	Study of titanium-carbon gradient layers grown by combination of laser deposition and magnetron sputtering. , 2002, , .		1

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91	Thin layers prepared by pulsed laser deposition from Yb <sub>0.19</sub> Co <sub>4</sub> Sb <sub>12</sub> target. , 2006, , .		1
92	Biocompatible layers fabricated using KrF laser. Proceedings of SPIE, 2008, , .	0.8	1
93	Study of thin films of LiNbO <sub>3</sub> using FTIR and Raman spectroscopy. Proceedings of SPIE, 2011, , .	0.8	1
94	Micro and Macro Scratch and Microhardness Study of Biocompatible DLC and TiO <sub>2</sub> Films Prepared by Laser. Advanced Materials Research, 0, 647, 25-29.	0.3	1
95	Silver doped metal layers for medical applications. Journal of Physics: Conference Series, 2014, 497, 012021.	0.3	1
96	Scanning thermal microscopy of Bi <sub>2</sub> Te <sub>3</sub> and Yb <sub>0.19</sub> Co <sub>4</sub> Sb <sub>12</sub> thermoelectric films. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	1
97	Thermoelectric nanocrystalline YbCoSb laser prepared layers. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	1
98	Nanocrystalline ferroelectric BaTiO <sub>3</sub> /Pt/fused silica for implants synthesized by pulsed laser deposition method. Laser Physics, 2017, 27, 095601.	0.6	1
99	Laser-synthesized nanocrystalline, ferroelectric, bioactive BaTiO <sub>3</sub> /Pt/FS for bone implants. Journal of Biomaterials Applications, 2018, 32, 1464-1475.	1.2	1
100	Conductive Gas Sensors Prepared Using PLD. NATO Science for Peace and Security Series B: Physics and Biophysics, 2011, , 391-399.	0.2	1
101	<title>Hydroxyapatite and ZrO <sub>2</sub> biocompatible coatings fabricated by pulsed laser deposition</title>. , 2006, , .		0
102	<title>Study of thin TiC <sub>x</sub> N <sub>1-x</sub> films fabricated by hybrid magnetron-laser deposition</title>. , 2006, 6180, 89.		0
103	Thin organic layers prepared by MAPLE for gas sensor application. , 2006, , .		0
104	<title>Experiments of MAPLE thin film technology</title>. , 2007, , .		0
105	Hybrid Deposition of Titanium Carbide Thin Films. ECS Transactions, 2011, 32, 73-77.	0.3	0
106	DLC Coated Textile Vascular Prostheses Tested in Sheep. Advanced Materials Research, 0, 647, 20-24.	0.3	0
107	Properties of thermoelectric Ce <sub>0.09</sub> Fe <sub>0.67</sub> Co <sub>3.33</sub> Sb <sub>12</sub> /FeSb <sub>2</sub> Te multi-layered structures prepared by laser ablation. Journal of Physics: Conference Series, 2014, 497, 012038.	0.3	0
108	Very Smooth FeSb <sub>2</sub> Te and Ce <sub>0.1</sub> Fe <sub>0.7</sub> Co <sub>3.3</sub> Sb <sub>12</sub> Layers Prepared by Modified PLD. Journal of Electronic Materials, 2016, 45, 1921-1926.	1.0	0

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109	Crystalline Thin Layers of BaTiO <sub>3</sub> for Gas Sensors Prepared by PLD. NATO Science for Peace and Security Series B: Physics and Biophysics, 2018, , 17-30.	0.2	0
110	MORPHOLOGY OF BN THIN LAYERS DEPOSITED FROM h-BN BY KrF EXCIMER LASER. , 2004, , .		0
111	Laser Deposition of Waveguiding Films. NATO Science Series Series II, Mathematics, Physics and Chemistry, 2006, , 197-210.	0.1	0
112	Influence of crystallinity on bio- physical properties of hydroxyapatite films. IFMBE Proceedings, 2009, , 2179-2181.	0.2	0
113	Hybrid Laser Technology for Creation of Doped Biomedical Layers. Journal of Materials Science and Chemical Engineering, 2016, 04, 98-104.	0.2	0