TomÃ¡Å¡ Kocourek

List of Publications by Year in descending order

113 papers	1,213 citations	394421 19 h-index	477307 29 g-index
113 all docs	113 docs citations	113 times ranked	1540 citing authors

#	Article	IF	Citations
1	In-depth distribution of elements and chemical bonds in the surface region of calcium-doped diamond-like carbon films. Applied Surface Science, 2021, 539, 148250.	6.1	5
2	On the Origin of Reduced Cytotoxicity of Germanium-Doped Diamond-Like Carbon: Role of Top Surface Composition and Bonding. Nanomaterials, 2021, 11, 567.	4.1	5
3	Large Negative Photoresistivity in Amorphous NdNiO3 Film. Coatings, 2021, 11, 1411.	2.6	2
4	Multiple optical impacts of anion doping in epitaxial barium titanate films. APL Materials, 2020, 8, .	5.1	6
5	In situ anion-doped epitaxial strontium titanate films. Physical Chemistry Chemical Physics, 2020, 22, 24796-24800.	2.8	5
6	Effect of diamond-like carbon doped with chromium on cell differentiation, immune activation and apoptosis. , 2020, 40, 276-302.		2
7	Preliminary Study of Ge-DLC Nanocomposite Biomaterials Prepared by Laser Codeposition. Nanomaterials, 2019, 9, 451.	4.1	9
8	Negative magnetoresistance in epitaxial films of neodymium nickelate. Physical Review B, 2019, 99, .	3.2	14
9	Hybrid polar state in epitaxial (111) PbSc0.5Nb0.5O3 relaxor ferroelectric films. Physical Review Materials, 2019, 3, .	2.4	2
10	Laser-synthesized nanocrystalline, ferroelectric, bioactive BaTiO₃/Pt/FS for bone implants. Journal of Biomaterials Applications, 2018, 32, 1464-1475.	2.4	1
11	Optical effects induced by epitaxial tension in lead titanate. Applied Physics Letters, 2018, 112, 031111.	3.3	15
12	Crystalline Thin Layers of BaTiO3 for Gas Sensors Prepared by PLD. NATO Science for Peace and Security Series B: Physics and Biophysics, 2018, , 17-30.	0.3	0
13	Thermooptical evidence of carrier-stabilized ferroelectricity in ultrathin electrodeless films. Scientific Reports, 2018, 8, 8497.	3.3	5
14	Hybrid laser technology and doped biomaterials. Applied Surface Science, 2017, 417, 73-83.	6.1	15
15	Diamond-like carbon layers modified by ion bombardment during growth and researched by Resonant Ultrasound Spectroscopy. Applied Surface Science, 2017, 417, 213-217.	6.1	6
16	Adhesion and differentiation of Saos-2 osteoblast-like cells on chromium-doped diamond-like carbon coatings. Journal of Materials Science: Materials in Medicine, 2017, 28, 17.	3.6	14
17	Nanocrystalline ferroelectric BaTiO₃/Pt/fused silica for implants synthetized by pulsed laser deposition method. Laser Physics, 2017, 27, 095601.	1.2	1
18	PLD prepared bioactive BaTiO3 films on TiNb implants. Materials Science and Engineering C, 2017, 70, 334-339.	7.3	16

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19	Dual laser deposition of Ti:DLC composite for implants. Laser Physics, 2016, 26, 105605.	1.2	10
20	Very Smooth FeSb2Te and Ce0.1Fe0.7Co3.3Sb12 Layers Prepared by Modified PLD. Journal of Electronic Materials, 2016, 45, 1921-1926.	2.2	0
21	Scanning thermal microscopy of Bi2Te3 and Yb0.19Co4Sb12 thermoelectric films. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	1
22	Thermoelectric nanocrystalline YbCoSb laser prepared layers. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	1
23	Scanning Thermal Microscopy of Thermoelectric Nanostructures. Journal of Electronic Materials, 2016, 45, 1734-1739.	2.2	2
24	Bonding and bio-properties of hybrid laser/magnetron Cr-enriched DLC layers. Materials Science and Engineering C, 2016, 58, 1217-1224.	7.3	25
25	Optical Properties of Ferroelectric Epitaxial K0.5Na0.5NbO3 Films in Visible to Ultraviolet Range. PLoS ONE, 2016, 11, e0153261.	2.5	7
26	Hybrid Laser Technology for Creation of Doped Biomedical Layers. Journal of Materials Science and Chemical Engineering, 2016, 04, 98-104.	0.4	0
27	Study of Yb-Doped CoSb₃ Thermoelectric Thin Films Prepared by Laser. Applied Mechanics and Materials, 2015, 749, 46-50.	0.2	3
28	Interband transitions in epitaxial ferroelectric films of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>NaNb</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2015, 92, .	3.2	13
29	Effects of doping and epitaxy on optical behavior of NaNbO3 films. Applied Physics Letters, 2015, 107, 172906.	3.3	3
30	Polarized Raman scattering study of PSN single crystals and epitaxial thin films. Journal of Advanced Dielectrics, 2015, 05, 1550013.	2.4	2
31	Influence of diamond and graphite bonds on mechanical properties of DLC thin films. Journal of Physics: Conference Series, 2015, 594, 012008.	0.4	5
32	Concurrent bandgap narrowing and polarization enhancement in epitaxial ferroelectric nanofilms. Science and Technology of Advanced Materials, 2015, 16, 026002.	6.1	10
33	Effect of epitaxy on interband transitions in ferroelectric KNbO₃. New Journal of Physics, 2015, 17, 043048.	2.9	11
34	Strain-controlled optical absorption in epitaxial ferroelectric BaTiO3 films. Applied Physics Letters, 2015, 106, .	3.3	28
35	Chromium-doped DLC for implants prepared by laser-magnetron deposition. Materials Science and Engineering C, 2015, 46, 381-386.	7.3	46
36	Characterization of laser prepared Bi2Te3 nano-layers. Laser Physics, 2015, 25, 015903.	1.2	4

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37	Silver-doped metal layers for medical applications. Laser Physics, 2014, 24, 085602.	1.2	2
38	Polycrystalline LiNbO₃thin films characterized by infrared and Raman spectroscopy. Laser Physics, 2014, 24, 025701.	1.2	4
39	Ambience-sensitive optical refraction in ferroelectric nanofilms of NaNbO3. Science and Technology of Advanced Materials, 2014, 15, 045001.	6.1	9
40	Chromium-doped diamond-like carbon films deposited by dual-pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2014, 117, 83-88.	2.3	13
41	Preliminary comparative study of laser-prepared DLC and Cr-doped DLC for bacteria adhesion. Applied Physics A: Materials Science and Processing, 2014, 116, 1437-1443.	2.3	8
42	Cell adhesion and growth on ultrananocrystalline diamond and diamond-like carbon films after different surface modifications. Applied Surface Science, 2014, 297, 95-102.	6.1	46
43	Temperature dependence of the optical properties of Ba0.75Sr0.25TiO3 thin films. Thin Solid Films, 2014, 571, 416-419.	1.8	8
44	Silver doped metal layers for medical applications. Journal of Physics: Conference Series, 2014, 497, 012021.	0.4	1
45	Properties of thermoelectric Ce0.09Fe0.67Co3.33Sb12/FeSb2Te multi-layered structures prepared by laser ablation. Journal of Physics: Conference Series, 2014, 497, 012038.	0.4	0
46	Influence of ion bombardment on growth and properties of PLD created DLC films. Applied Physics A: Materials Science and Processing, 2013, 110, 943-947.	2.3	17
47	Properties of thermoelectric Ce0.09Fe0.67Co3.33Sb12/FeSb2Te multi-layered structures prepared by laser ablation. Thin Solid Films, 2013, 548, 590-596.	1.8	4
48	Study of optical properties and biocompatibility of DLC films characterized by sp3 bonds. Applied Physics A: Materials Science and Processing, 2013, 112, 143-148.	2.3	26
49	Antibacterial, cytotoxicity and physical properties of laser â€" Silver doped hydroxyapatite layers. Materials Science and Engineering C, 2013, 33, 1242-1246.	7.3	46
50	Composition, XRD and morphology study of laser prepared LiNbO3 films. Applied Physics A: Materials Science and Processing, 2013, 110, 883-888.	2.3	11
51	Optical properties of laser-prepared Er- and Er,Yb-doped LiNbO3 waveguiding layers. Laser Physics, 2013, 23, 105819.	1.2	13
52	Optical properties of epitaxial relaxor ferroelectric PbSc_{0.5}Nb_{0.5}O₃ films. Applied Physics Letters, 2013, 103, 132901.	3.3	9
53	Comparison of the surface properties of <scp>DLC</scp> and ultrananocrystalline diamond films with respect to their bioâ€applications. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2106-2110.	1.8	12
54	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

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55	d0Ferromagnetic Interface between Nonmagnetic Perovskites. Physical Review Letters, 2012, 109, 127207.	7.8	45
56	Study of thin films of LiNbO3 using FTIR and Raman spectroscopy. Proceedings of SPIE, 2011, , .	0.8	1
57	Evaluation of elastic properties of DLC layers using resonant ultrasound spectroscopy and AFM nanoindentation. Surface and Coatings Technology, 2011, 205, S67-S70.	4.8	13
58	Biomedical properties of laser prepared silver-doped hydroxyapatite. Laser Physics, 2011, 21, 1265-1269.	1.2	19
59	MAPLE activities and applications in gas sensors. Applied Physics A: Materials Science and Processing, 2011, 105, 643-649.	2.3	5
60	Hybrid Deposition of Titanium Carbide Thin Films. ECS Transactions, 2011, 32, 73-77.	0.5	0
61	Conductive Gas Sensors Prepared Using PLD. NATO Science for Peace and Security Series B: Physics and Biophysics, 2011, , 391-399.	0.3	1
62	Doped biocompatible layers prepared by laser. Laser Physics, 2010, 20, 562-567.	1.2	8
63	Antibacterial properties of Ag-doped hydroxyapatite layers prepared by PLD method. Applied Physics A: Materials Science and Processing, 2010, 101, 615-620.	2.3	34
64	Diamond/graphite content and biocompatibility of DLC films fabricated by PLD. Applied Physics A: Materials Science and Processing, 2010, 101, 579-583.	2.3	26
65	Biocompatibility and sp3/sp2 ratio of laser created DLC films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 169, 89-93.	3.5	62
66	Properties of thin N-type Yb0.14Co4Sb12 and P-type Ce0.09Fe0.67Co3.33Sb12 skutterudite layers prepared by laser ablation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 523-527.	2.1	11
67	Optical study of BST films combining ellipsometry and reflectivity. Applied Surface Science, 2009, 255, 5280-5283.	6.1	4
68	SiC_x Layers Prepared by Hybrid Laser Deposition and PLD. Plasma Processes and Polymers, 2009, 6, S366.	3.0	4
69	Polypyrrole thin films for gas sensors prepared by Matrix-Assisted Pulsed Laser Evaporation technology: Effect of deposition parameters on material properties. Thin Solid Films, 2009, 517, 2083-2087.	1.8	21
70	Highly oriented crystalline Er:YAG and Er:YAP layers prepared by PLD and annealing. Applied Surface Science, 2009, 255, 5292-5294.	6.1	3
71	Hybrid laserâ€"magnetron technology for carbon composite coating. Laser Physics, 2009, 19, 149-153.	1.2	11
72	Textile blood vessels coated with DLC. IFMBE Proceedings, 2009, , 2173-2174.	0.3	2

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73	Influence of crystallinity on bio- physical properties of hydroxyapatite films. IFMBE Proceedings, 2009, , 2179-2181.	0.3	0
74	Power factor of very thin thermoelectric layers of different thickness prepared by laser ablation. Applied Physics A: Materials Science and Processing, 2008, 93, 663-667.	2.3	4
75	Thin SiC x layers prepared by hybrid laserâ€“magnetron deposition. Applied Physics A: Materials Science and Processing, 2008, 93, 633-637.	2.3	5
76	DLC coating of textile blood vessels using PLD. Applied Physics A: Materials Science and Processing, 2008, 93, 627-632.	2.3	27
77	Biocompatible layers fabricated using KrF laser. Proceedings of SPIE, 2008, , .	0.8	1
78	<title>Experiments of MAPLE thin film technology</title>. , 2007, , .		0
79	Thin films growth parameters in MAPLE; application to fibrinogen. Journal of Physics: Conference Series, 2007, 59, 22-27.	0.4	7
80	Matrix assisted pulsed laser evaporation of pullulan tailor-made biomaterial thin films for controlled drug delivery systems. Journal of Physics: Conference Series, 2007, 59, 144-149.	0.4	8
81	Polypyrrole active layers of gas sensors prepared by MAPLE technology. Journal of Physics: Conference Series, 2007, 76, 012044.	0.4	4
82	Matrix assisted pulsed laser evaporation of cinnamate-pullulan and tosylate-pullulan polysaccharide derivative thin films for pharmaceutical applications. Applied Surface Science, 2007, 253, 7755-7760.	6.1	16
83	Deposition of organic metalocomplexes for sensor applications by MAPLE. Sensors and Actuators B: Chemical, 2007, 125, 189-194.	7.8	24
84	Thin TiCN Films Prepared by Hybrid Magnetron-Laser Deposition. Plasma Processes and Polymers, 2007, 4, S651-S654.	3.0	6
85	Biological and physical properties of pulsed-Laser-deposited zirconia/hydroxyapatite on titanium: In vitro study. Laser Physics, 2007, 17, 45-49.	1.2	3
86	MAPLE applications in studying organic thin films. Laser Physics, 2007, 17, 66-70.	1.2	36
87	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.	2.3	37
88	Thin layers of bovine serum albumin by matrix assisted pulsed laser evaporation. Applied Surface Science, 2007, 254, 1240-1243.	6.1	11
89	Study of laser created ZRO2 and hydroxyapatite/ZrO2 films for implantology. New Biotechnology, 2007, 24, 103-106.	2.7	7
90	Thin layers prepared by pulsed laser deposition from Yb0.19Co4Sb12 target. , 2006, , .		1

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91	Laser deposition of cryoglobulin blood proteins thin films by matrix assisted pulsed laser evaporation. Applied Surface Science, 2006, 252, 4652-4655.	6.1	15
92	Matrix assisted pulsed laser evaporation processing of triacetate-pullulan polysaccharide thin films for drug delivery systems. Applied Surface Science, 2006, 252, 4647-4651.	6.1	31
93	Structural and optical properties of Er, Yb co-doped Y2O3 thin films. Applied Surface Science, 2006, 252, 4569-4572.	6.1	8
94	Phase formation and microstructure of boron nitride thin layers deposited using Nd:YAG and KrF lasers. Surface and Coatings Technology, 2006, 200, 6438-6443.	4.8	8
95	KrF laser deposition combined with magnetron sputtering to grow titaniumâ€“carbide layers. Thin Solid Films, 2006, 506-507, 101-105.	1.8	10
96	Thin organic layers prepared by MAPLE for gas sensor application. Thin Solid Films, 2006, 495, 308-311.	1.8	56
97	Laser-deposited thin films for butane detection. Laser Physics, 2006, 16, 217-222.	1.2	2
98	High field magnetoresistance in Coâ€“Alâ€“O nanogranular films. Journal of Magnetism and Magnetic Materials, 2006, 300, 293-299.	2.3	11
99	<title>Hydroxyapatite and ZrO<formula><inf><roman>2</roman></inf></formula> biocompatible coatings fabricated by pulsed laser deposition</title>. , 2006, , .		0
100	<title>Study of thin TiC<formula><inf><roman>x</roman></inf></formula>N<formula><inf><roman>1-x</roman></inf></formula> films fabricated by hybrid magnetron-laser deposition</title>. , 2006, 6180, 89.		0
101	Biological properties of titanium implants covered with hydroxyapatite and zirconia layers by pulsed laser:In vitrostudy. Journal of Applied Physics, 2006, 99, 014905.	2.5	7
102	Thin organic layers prepared by MAPLE for gas sensor application. , 2006, , .		0
103	Laser Deposition of Waveguiding Films. NATO Science Series Series II, Mathematics, Physics and Chemistry, 2006, , 197-210.	0.1	0
104	Thin film gas chemical sensors based on resistive or optical detection (Invited Paper). , 2005, , .		4
105	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.	4.8	23
106	Subpicosecond and enhanced nanosecond PLD to grow ZnO films in nitrogen ambient. Surface and Coatings Technology, 2005, 200, 418-420.	4.8	8
107	Spectroscopic measurements of plasma plume induced during the laser deposition of the hydroxyapatite. European Physical Journal D, 2004, 54, C397-C402.	0.4	3
108	Nanogranular Coâ€“Alâ€“O films prepared by laser ablation. Physica Status Solidi (B): Basic Research, 2004, 241, 1617-1620.	1.5	4

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109	MORPHOLOGY OF BN THIN LAYERS DEPOSITED FROM h-BN BY KrF EXCIMER LASER. , 2004, , .		0
110	Pulsed Laser Deposition of Inorganic and Organic Thin Films for Active Layers of Ozone Sensors. Solid State Phenomena, 2003, 90-91, 541-546.	0.3	4
111	Study of titanium-carbon gradient layers grown by combination of laser deposition and magnetron sputtering. , 2002, , .		1
112	Micro and Macro Scratch and Microhardness Study of Biocompatible DLC and TiO₂ Films Prepared by Laser. Advanced Materials Research, 0, 647, 25-29.	0.3	1
113	DLC Coated Textile Vascular Prostheses Tested in Sheep. Advanced Materials Research, 0, 647, 20-24.	0.3	0