

Roberto Teghil

List of Publications by Year in descending order

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146
papers

3,102
citations

136950

32
h-index

233421

45
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148
all docs

148
docs citations

148
times ranked

3034
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of titanium carbide coating on the osseointegration response in vitro and in vivo. <i>Biomaterials</i> , 2007, 28, 595-608.	11.4	124
2	Laser Ablation of Graphite in Water in a Range of Pressure from 1 to 146 atm Using Single and Double Pulse Techniques for the Production of Carbon Nanostructures. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5123-5130.	3.1	103
3	Superhard Rhenium Diboride Films: Preparation and Characterization. <i>Chemistry of Materials</i> , 2008, 20, 4507-4511.	6.7	68
4	Picosecond and femtosecond pulsed laser ablation and deposition of quasicrystals. <i>Applied Surface Science</i> , 2003, 210, 307-317.	6.1	67
5	Glass-ceramic coated Mg-Ca alloys for biomedical implant applications. <i>Materials Science and Engineering C</i> , 2016, 64, 362-369.	7.3	64
6	Characterization of the plasma plume and of thin film epitaxially produced during laser ablation of SnSe. <i>Applied Surface Science</i> , 1995, 90, 505-514.	6.1	62
7	Laser Induced Breakdown Spectroscopy methodology for the analysis of copper-based-alloys used in ancient artworks. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2008, 63, 585-590.	2.9	62
8	Pulsed laser deposited hard TiC, ZrC, HfC and TaC films on titanium: Hardness and an energy-dispersive X-ray diffraction study. <i>Surface and Coatings Technology</i> , 2008, 202, 1455-1461.	4.8	61
9	Early stage emission spectroscopy study of metallic titanium plasma induced in air by femtosecond- and nanosecond-laser pulses. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005, 60, 935-947.	2.9	60
10	Superhard Properties of Rhodium and Iridium Boride Films. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 581-587.	8.0	60
11	Pulsed laser ablation and deposition of bioactive glass as coating material for biomedical applications. <i>Applied Surface Science</i> , 1999, 138-139, 527-532.	6.1	57
12	Dynamics of laser-induced bubble and nanoparticles generation during ultra-short laser ablation of Pd in liquid. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 445301.	2.8	55
13	TiC and TaC deposition by pulsed laser ablation: a comparative approach. <i>Applied Surface Science</i> , 2001, 173, 233-241.	6.1	53
14	Superhard Tungsten Tetraboride Films Prepared by Pulsed Laser Deposition Method. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 3738-3743.	8.0	50
15	Cu-Releasing Bioactive Glass Coatings and Their in Vitro Properties. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 5812-5820.	8.0	49
16	ns- and fs-LIBS of copper-based-alloys: A different approach. <i>Applied Surface Science</i> , 2007, 253, 7677-7681.	6.1	48
17	Fe-doped hydroxyapatite coatings for orthopedic and dental implant applications. <i>Applied Surface Science</i> , 2014, 307, 301-305.	6.1	46
18	Chemical reactivity of ionic clusters formed by laser ablation of solid oxides utilized in superconducting materials. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1990, 95, 359-373.	1.8	44

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19	Vapour pressures and sublimation enthalpies of thymine and cytosine. <i>Thermochimica Acta</i> , 1980, 42, 75-83.	2.7	43

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37	Ultra-short pulse laser ablation of Al ₇₀ Cu ₂₀ Fe ₁₀ alloy: Nanoparticles generation and thin films deposition. <i>Thin Solid Films</i> , 2009, 517, 1880-1886.	1.8	27
38	Matrix isolation studies on metal coordinated oxyanions. The shape of molecular MClO ₄ , MClO ₃ , MReO ₄ , and EuWO ₄ systems. <i>Journal of Chemical Physics</i> , 1984, 81, 3415-3423.	3.0	26
39	Zirconium carbide thin films deposited by pulsed laser ablation. <i>Applied Surface Science</i> , 2000, 168, 284-287.	6.1	26
40	Chromium carbide thin films deposited by ultra-short pulse laser deposition. <i>Applied Surface Science</i> , 2009, 255, 7729-7733.	6.1	26
41	Pulsed laser deposition of hard and superhard carbon thin films from C ₆₀ targets. <i>Diamond and Related Materials</i> , 2010, 19, 7-14.	3.9	26
42	Ultra-short pulsed laser deposition of thin silver films for surface enhanced Raman scattering. <i>Surface and Coatings Technology</i> , 2012, 207, 279-285.	4.8	26
43	Rutile microtubes assembly from nanostructures obtained by ultra-short laser ablation of titanium in liquid. <i>Applied Surface Science</i> , 2013, 268, 571-578.	6.1	26
44	Bioactive glass-ceramic coatings prepared by pulsed laser deposition from RKKP targets (sol-gel vs Tj ETQq0 0 0 rgBT /Overlock 10	3.2	25
45	Pulsed laser ablation of indium tin oxide in the nano and femtosecond regime: Characterization of transient species. <i>Applied Surface Science</i> , 2006, 252, 4632-4636.	6.1	24
46	fs/ns dual-pulse LIBS analytic survey for copper-based alloys. <i>Applied Surface Science</i> , 2007, 254, 863-867.	6.1	24
47	Hardness of bioactive glass film deposited on titanium alloy by pulsed laser ablation. <i>Journal of Materials Science Letters</i> , 2002, 21, 379-382.	0.5	23
48	RBP1 bioactive glass-ceramic films obtained by Pulsed Laser Deposition. <i>Materials Letters</i> , 2016, 175, 195-198.	2.6	23
49	Substituted Hydroxyapatite, Glass, and Glass-Ceramic Thin Films Deposited by Nanosecond Pulsed Laser Deposition (PLD) for Biomedical Applications: A Systematic Review. <i>Coatings</i> , 2021, 11, 811.	2.6	23
50	Spectroscopy of 4-fluorostyrene clusters. <i>Journal of Molecular Structure</i> , 1993, 293, 197-200.	3.6	22
51	Laser induced ablation and epitaxial growth of SnSe. <i>Thin Solid Films</i> , 1994, 241, 126-128.	1.8	22
52	Ultra-Short Pulsed Laser Deposition of Oxides, Borides and Carbides of Transition Elements. <i>Coatings</i> , 2020, 10, 501.	2.6	22
53	Pulsed laser ablation of Al-Cu-Fe quasicrystals. <i>Applied Surface Science</i> , 2000, 168, 267-269.	6.1	21
54	Diamond-like carbon thin films produced by femtosecond pulsed laser deposition of fullerite. <i>Surface and Coatings Technology</i> , 2011, 205, 3747-3753.	4.8	21

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55	Pulsed-laser deposition and characterization of TaC films. <i>Applied Surface Science</i> , 1995, 86, 190-195.	6.1	20
56	Optical emission spectroscopy investigation of an ultra-short laser induced titanium plasma reheated by a ns laser pulse. <i>Applied Surface Science</i> , 2007, 253, 7792-7797.	6.1	20
57	Nanostructured thin films obtained by ultra-short pulse laser deposition of vanadium carbide. <i>Applied Surface Science</i> , 2009, 255, 5220-5223.	6.1	20
58	Infrared and raman study of matrix isolated M(SO ₂) molecules. The structure of the molecular ion SO ₂ ⁺ . <i>Inorganica Chimica Acta</i> , 1986, 121, 207-212.	2.4	19
59	Theoretical Modeling of Laser Ablation of Quaternary Bronze Alloys: Case Studies Comparing Femtosecond and Nanosecond LIBS Experimental Data. <i>Journal of Physical Chemistry A</i> , 2009, 113, 14364-14374.	2.5	19
60	LIPSS Applied to Wide Bandgap Semiconductors and Dielectrics: Assessment and Future Perspectives. <i>Materials</i> , 2022, 15, 1378.	2.9	19
61	Spatial distribution of laser-ablated material by probing a plasma plume in three dimensions. <i>Applied Surface Science</i> , 1996, 96-98, 102-111.	6.1	18
62	Hafnium carbide hard coatings produced by pulsed laser ablation and deposition. <i>Surface and Coatings Technology</i> , 2002, 151-152, 531-533.	4.8	18
63	Role and importance of nanoparticles in femtosecond pulsed laser ablation deposition of Al-Cu-Fe quasicrystal. <i>Chemical Physics Letters</i> , 2007, 438, 85-88.	2.6	18
64	Hardness of zirconium diboride films deposited on titanium substrates. <i>Materials Chemistry and Physics</i> , 2008, 112, 504-509.	4.0	18
65	The role of the solvent in the ultrashort laser ablation of palladium target in liquid. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 211-216.	2.3	18
66	Pulsed laser deposition temperature effects on strontium-substituted hydroxyapatite thin films for biomedical implants. <i>Cell Biology and Toxicology</i> , 2020, 36, 537-551.	5.3	18
67	Plume dynamics in TiC laser ablation. <i>Applied Surface Science</i> , 2003, 208-209, 113-118.	6.1	17
68	Comparison of the performances of nanosecond and femtosecond Laser Induced Breakdown Spectroscopy for depth profiling of an artificially corroded bronze. <i>Applied Surface Science</i> , 2014, 302, 275-279.	6.1	17
69	Fs double-pulse Laser Induced Breakdown Spectroscopy of copper-based-alloys: Generation and elemental analysis of nanoparticles. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2014, 101, 261-268.	2.9	17
70	Production of silver-silica core-shell nanocomposites using ultra-short pulsed laser ablation in nanoporous aqueous silica colloidal solutions. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 205304.	2.8	17
71	Structural modification of titanium surface by octacalcium phosphate via Pulsed Laser Deposition and chemical treatment. <i>Bioactive Materials</i> , 2017, 2, 101-107.	15.6	17
72	Transition Metal Carbide Core/Shell Nanoparticles by Ultra-Short Laser Ablation in Liquid. <i>Nanomaterials</i> , 2020, 10, 145.	4.1	17

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73	Pulsed laser deposition of thin films of TiO ₂ for Li-ion batteries. Applied Surface Science Advances, 2021, 4, 100090.	6.8	17
74	Cluster ion formation by laser evaporation of solid complex oxides. Applied Surface Science, 1989, 43, 398-401.	6.1	16
75	In situ formation of ionic carbide clusters by laser ablation. Applied Surface Science, 1990, 46, 220-224.	6.1	16
76	Emission spectroscopy of aluminum nitride plasma plume induced by ultra-short pulsed laser ablation. Applied Surface Science, 2003, 208-209, 101-106.	6.1	16
77	Orthogonal fs/ns double-pulse libs for copper-based-alloy analysis. Applied Physics A: Materials Science and Processing, 2008, 93, 929-934.	2.3	16
78	Interdisciplinary approach to cell-biomaterial interactions: biocompatibility and cell friendly characteristics of RKKP glass-ceramic coatings on titanium. Biomedical Materials (Bristol), 2015, 10, 035005.	3.3	16
79	Laser ablation of GaAs in liquid: the role of laser pulse duration. Journal Physics D: Applied Physics, 2016, 49, 035301.	2.8	16
80	Matrix-isolation studies on M+(AsO ₃ ²⁻) and M+(ClO ₃ ²⁻) ion couples. Inorganica Chimica Acta, 1984, 85, L11-L14.	2.4	15
81	Thickness-dependent hardness of pulsed laser ablation deposited thin films of refractory carbides. Materials Chemistry and Physics, 2004, 87, 233-236.	4.0	15
82	Ablation of transition metal oxides by different laser pulse duration and thin films deposition. Applied Surface Science, 2000, 154-155, 467-472.	6.1	14
83	Thin films deposited by femtosecond pulsed laser ablation of tungsten carbide. Applied Surface Science, 2012, 258, 9198-9201.	6.1	13
84	Pulsed laser deposited bioactive RKKP-Mn glass-ceramic coatings on titanium. Surface and Coatings Technology, 2019, 357, 122-128.	4.8	13
85	Graft copolymers of lignin from straw with 1-ethenylbenzene: Synthesis and characterization. Journal of Applied Polymer Science, 2001, 79, 72-79.	2.6	12
86	Comparison of silver nanoparticles confined in nanoporous silica prepared by chemical synthesis and by ultra-short pulsed laser ablation in liquid. Applied Physics A: Materials Science and Processing, 2014, 117, 55-62.	2.3	12
87	Hardness of titanium carbide films deposited on silicon by pulsed laser ablation. Journal of Materials Science, 2001, 36, 929-935.	3.7	11
88	Femtosecond pulsed laser ablation of group 4 carbides. Applied Surface Science, 2005, 247, 51-56.	6.1	11
89	Applications of ultra-short pulsed laser ablation: thin films deposition and fs/ns dual-pulse laser-induced breakdown spectroscopy. Physica Scripta, 2008, 78, 058113.	2.5	11
90	Iron doped LiCoPO ₄ thin films for lithium-ion microbatteries obtained by ns pulsed laser deposition. Applied Surface Science, 2018, 445, 56-64.	6.1	11

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91	Borate and Silicate Bioactive Glass Coatings Prepared by Nanosecond Pulsed Laser Deposition. <i>Coatings</i> , 2020, 10, 1105.	2.6	11
92	Pulsed laser ablation and deposition of semiconducting thin films: characterization of transient species. <i>Applied Surface Science</i> , 1993, 69, 161-168.	6.1	10
93	Preparation of the group III nitride thin films AlN, GaN, InN by direct and reactive pulsed laser ablation. <i>International Journal of Photoenergy</i> , 2001, 3, 111-121.	2.5	10
94	Use of ns and fs pulse excitation in laser-induced breakdown spectroscopy to improve its analytical performances: A case study on quaternary bronze alloys. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2014, 99, 185-192.	2.9	10
95	Placenta Derived Mesenchymal Stem Cells Hosted on RKKP Glass-Ceramic: A Tissue Engineering Strategy for Bone Regenerative Medicine Applications. <i>BioMed Research International</i> , 2016, 2016, 1-11.	1.9	10
96	First application of homogeneous Pd nanoparticles prepared by pulsed laser ablation in liquid to a Suzuki-type reaction. <i>Catalysis Communications</i> , 2017, 100, 164-168.	3.3	10
97	Manganese-containing bioactive glass enhances osteogenic activity of TiO ₂ nanotube arrays. <i>Applied Surface Science</i> , 2021, 570, 151163.	6.1	10
98	Infrared spectra of matrix-isolated gaseous ternary oxides. <i>Journal of Molecular Structure</i> , 1981, 74, 297-299.	3.6	9
99	Laser photolysis of chlorodiaminotriazines and detection of their fragmentation and clusterization products. <i>Organic Mass Spectrometry</i> , 1991, 26, 779-785.	1.3	9
100	Femtosecond pulsed laser deposition of nanostructured ITO thin films. <i>Materials Science and Engineering C</i> , 2007, 27, 1034-1037.	7.3	9
101	Femtosecond laser ablation of CaF ₂ : Plasma characterization and thin films deposition. <i>Applied Surface Science</i> , 2014, 302, 145-148.	6.1	9
102	Fullerene-reduced graphene oxide composites obtained by ultrashort laser ablation of fullerite in water. <i>Applied Surface Science</i> , 2015, 336, 67-72.	6.1	9
103	Pulsed laser ablation of MoSi ₂ : gas phase analysis. <i>Applied Surface Science</i> , 2002, 186, 335-338.	6.1	8
104	Emission spectra investigation of fs induced NPs probed by the ns laser pulse of a fs/ns DP-LIBS orthogonal configuration. <i>Applied Surface Science</i> , 2009, 255, 5159-5162.	6.1	8
105	Characterization of gaseous phase and nanoparticles produced in ultra-short pulsed laser ablation of transition metal borides. <i>Applied Surface Science</i> , 2011, 257, 5315-5318.	6.1	8
106	Thiophene-Based Oligomers Interacting with Silver Surfaces and the Role of a Condensed Benzene Ring. <i>Journal of Physical Chemistry C</i> , 2016, 120, 252-264.	3.1	8
107	Pulsed laser-deposited composite carbon-glass-ceramic films with improved hardness. <i>Journal of Materials Science</i> , 2017, 52, 9140-9150.	3.7	8
108	IR laser photolysis of mixtures of silane with nitric oxide and acetylene. <i>Chemical Physics Letters</i> , 1989, 154, 217-222.	2.6	7

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109	Zirconium oxide films deposited by reactive pulsed laser ablation. Applied Surface Science, 1999, 138-139, 344-349.	6.1	7
110	Pulsed laser ablation: reactivity of photoablated neutral particles from Fe-Cr alloy. Applied Surface Science, 1996, 106, 154-157.	6.1	6
111	GaN thin film fabrication by reaction of laser evaporated Ga and GaAs in NH ₃ atmosphere. Applied Surface Science, 1998, 127-129, 350-354.	6.1	6
112	Deposition and characterisation of MoSi ₂ films. Thin Solid Films, 2010, 518, 2050-2055.	1.8	6
113	Femtosecond pulsed laser ablation of molybdenum carbide: Nanoparticles and thin film characteristics. Applied Surface Science, 2013, 278, 321-324.	6.1	6
114	Synergistic Electro-Catalysis of Pd/PdO Nanoparticles and Cr(III)-Doped NiCo ₂ O ₄ Nanofibers in Aprotic Li-O ₂ Batteries. Journal of the Electrochemical Society, 2018, 165, A3605-A3612.	2.9	6
115	Metal carbide clusters formed by laser ablation of metal oxide-graphite systems. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1991, 20, 89-91.	1.0	5
116	Characterisation of ultrashort pulse laser ablation of SmBaCuO. Applied Surface Science, 2005, 248, 295-298.	6.1	5
117	Ultrashort pulsed laser vaporisation of icosahedral Al-Pd-Mn. Applied Surface Science, 2005, 248, 304-308.	6.1	5
118	Nanostructured molybdenum carbide thin films obtained by femtosecond pulsed laser deposition. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2370-2373.	0.8	5
119	Two-phase zirconium boride thin film obtained by ultra-short pulsed laser ablation of a ZrB ₁₂ target. Applied Surface Science, 2013, 283, 715-721.	6.1	5
120	Synthesis and Photophysical Properties of Some Dithienylbenzo[c]thiophene Derivatives. Heterocycles, 2015, 91, 313.	0.7	5
121	Inverse Calibration Free fs-LIBS of Copper-Based Alloys. Zeitschrift Fur Physikalische Chemie, 2016, 230, 1201-1217.	2.8	5
122	Plasmonic angular tunability of gold nanoparticles generated by fs laser ablation. Applied Surface Science, 2016, 374, 397-402.	6.1	5
123	Laser Irradiation of a Bio-Waste Derived Carbon Unlocks Performance Enhancement in Secondary Lithium Batteries. Nanomaterials, 2021, 11, 3183.	4.1	5
124	Pulsed laser deposition of pd on amorphous alumina substrate. Surface and Coatings Technology, 1996, 80, 216-220.	4.8	4
125	Femtosecond Pulsed Laser Deposition of Chromium Diboride-Rich Thin Films. Coatings, 2019, 9, 777.	2.6	4
126	Pyrolysis and IR laser photolysis of SiH ₄ molecules in the presence of non reactive and reactive additives. Applied Surface Science, 1989, 36, 89-94.	6.1	3

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127	FeCl ₃ -doped poly(phenylacetylene) investigated by means of laser ionization mass spectrometry. <i>Applied Surface Science</i> , 1993, 72, 39-44.	6.1	3
128	Determination of herbicide residues by laser microprobe mass analysis (Lamma). <i>International Journal of Environmental Analytical Chemistry</i> , 2004, 84, 39-45.	3.3	3
129	Femtosecond/Nanosecond dual-pulse orthogonal geometry plasma plume reheating for compositional analysis of ancient copper-based-alloy artworks. <i>Journal of Physics: Conference Series</i> , 2007, 59, 585-590.	0.4	3
130	Synthetic Approach to and Characterization of a Fullerene-DTBT-Fullerene Triad. <i>Synlett</i> , 2013, 24, 943-946.	1.8	3
131	Infrared spectra of matrix-isolated gaseous ternary oxides. <i>Journal of Molecular Structure</i> , 1981, 73, 15-17.	3.6	2
132	Laser induced ionic cluster formation: Oxides utilized in superconducting materials. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , 1990, 46, 503-504.	0.1	2
133	Production and reactivity of ionic clusters. <i>Applied Surface Science</i> , 1992, 54, 171-174.	6.1	2
134	Pulsed laser ablation of Nd and Pr carbides. <i>Applied Surface Science</i> , 2003, 208-209, 119-124.	6.1	2
135	Time-resolved stimulated emission spectroscopy in the ultrashort domain through pump-probe experiments. <i>Applied Surface Science</i> , 2007, 254, 859-862.	6.1	2
136	Single And Double Pulse Irradiation And Comparison With Experimental Results. , 2009, , .		2
137	Ultrashort Pulsed Laser Ablation of Magnesium Diboride: Plasma Characterization and Thin Films Deposition. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-9.	2.7	2
138	Thin films of Fe-V deposited by pulsed laser ablation. <i>Surface and Coatings Technology</i> , 1996, 80, 221-223.	4.8	1
139	Pulsed Laser Deposition of Bioglass Coatings on Dental Implants. <i>Materials Science Forum</i> , 2003, 414-415, 9-14.	0.3	1
140	<title>Study of laser produced plasma in Cu-based alloys</title>. , 2005, , .		1
141	Ultra-short pulsed laser deposition of gallium arsenide: a comprehensive study. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 275-280.	2.3	1
142	Silica Xerogel Obtained by Ultrashort Laser Irradiation of Tetraethyl Orthosilicate. <i>ChemPhysChem</i> , 2017, 18, 1140-1145.	2.1	1
143	<title>Pulsed laser ablation and deposition of quasicrystals</title>. , 2003, , .		1
144	Laser ionization mass spectrometry of undoped and I ₂ -doped polyphenylacetylene films. <i>Synthetic Metals</i> , 1991, 41, 319.	3.9	0

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145	<title>Laser-induced synthesis of InN in NH<math>\langle inf \rangle \langle roman \rangle 3 \langle /roman \rangle \langle /inf \rangle \langle /math \rangle</title> atmosphere: diagnostics of intermediates and InN thin film deposition</title>. , 1998, , .		0
146	<title>Ultrashort pulsed laser deposition of ITO thin films</title>. , 2006, , .		0