

Esther Rebollar

List of Publications by Year in descending order

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109
papers

2,285
citations

218381

26
h-index

253896

43
g-index

111
all docs

111
docs citations

111
times ranked

2515
citing authors

#	ARTICLE	IF	CITATIONS
1	Proliferation of aligned mammalian cells on laser-nanostructured polystyrene. <i>Biomaterials</i> , 2008, 29, 1796-1806.	5.7	219
2	Laser induced periodic surface structures on polymer films: From fundamentals to applications. <i>European Polymer Journal</i> , 2015, 73, 162-174.	2.6	131
3	Physicochemical modifications accompanying UV laser induced surface structures on poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Over Physics, 2014, 16, 17551.	1.3	99
4	Assessment of femtosecond laser induced periodic surface structures on polymer films. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11287.	1.3	95
5	Assessment and Formation Mechanism of Laser-Induced Periodic Surface Structures on Polymer Spin-Coated Films in Real and Reciprocal Space. <i>Langmuir</i> , 2011, 27, 5596-5606.	1.6	81
6	Ultraviolet and infrared femtosecond laser induced periodic surface structures on thin polymer films. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	71
7	Unveiling the Far Infrared-to-Ultraviolet Optical Properties of Bismuth for Applications in Plasmonics and Nanophotonics. <i>Journal of Physical Chemistry C</i> , 2017, 121, 3511-3521.	1.5	61
8	Analysis of corroded glasses by laser induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005, 60, 1155-1162.	1.5	59
9	Grazing-incidence small-angle X-ray scattering of soft and hard nanofabricated gratings. <i>Journal of Applied Crystallography</i> , 2012, 45, 1038-1045.	1.9	51
10	Laser-Induced Periodic Surface Structures Nanofabricated on Poly(trimethylene terephthalate) Spin-Coated Films. <i>Langmuir</i> , 2012, 28, 7938-7945.	1.6	49
11	Laser-induced periodic surface structuring of biopolymers. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 683-690.	1.1	47
12	Laser-Induced Periodic Surface Structures on Conjugated Polymers: Poly(3-hexylthiophene). <i>Macromolecules</i> , 2015, 48, 4024-4031.	2.2	46
13	Structure Development in Polymers during Fused Filament Fabrication (FFF): An in Situ Small- and Wide-Angle X-ray Scattering Study Using Synchrotron Radiation. <i>Macromolecules</i> , 2019, 52, 9715-9723.	2.2	45
14	Fabrication of porous biopolymer substrates for cell growth by UV laser: The role of pulse duration. <i>Applied Surface Science</i> , 2012, 258, 8919-8927.	3.1	43
15	Gold coatings on polymer laser induced periodic surface structures: assessment as substrates for surface-enhanced Raman scattering. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 15699.	1.3	39
16	Influence of substrate and film thickness on polymer LIPSS formation. <i>Applied Surface Science</i> , 2017, 394, 125-131.	3.1	39
17	Room temperature in-plane $\sim 100^\circ$ magnetic easy axis for Fe ₃ O ₄ /SrTiO ₃ (001):Nb grown by infrared pulsed laser deposition. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	37
18	Identification of inks and structural characterization of contemporary artistic prints by laser-induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2005, 60, 1140-1148.	1.5	36

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19	Dependence of ultraviolet nanosecond laser polymer ablation on polymer molecular weight: Poly(methyl methacrylate) at 248 nm. Journal of Applied Physics, 2006, 100, 114323.	1.1	35
20	Gold coatings on polyethyleneterephthalate nano-patterned by F2 laser irradiation. Applied Surface Science, 2008, 254, 3585-3590.	3.1	35
21	Wavelength and pulse duration effects on laser induced changes on raw pigments used in paintings. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 102, 7-14.	2.0	35
22	Effect of Molecular Weight on the Morphological Modifications Induced by UV Laser Ablation of Doped Polymers. Journal of Physical Chemistry B, 2006, 110, 16452-16458.	1.2	34
23	Laser-Induced Periodic Surface Structures on P3HT and on Its Photovoltaic Blend with PC ₇₁ BM. ACS Applied Materials & Interfaces, 2016, 8, 31894-31901.	4.0	34
24	Laser Fabrication of Polymer Ferroelectric Nanostructures for Nonvolatile Organic Memory Devices. ACS Applied Materials & Interfaces, 2015, 7, 19611-19618.	4.0	31
25	UV surface modification of a new nanocomposite polymer to improve cytocompatibility. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 453-468.	1.9	30
26	Influence of Polymer Molecular Weight on the Chemical Modifications Induced by UV Laser Ablation. Journal of Physical Chemistry B, 2006, 110, 14215-14220.	1.2	29
27	Nanosecond laser-induced periodic surface structures on wide band-gap semiconductors. Applied Surface Science, 2013, 278, 325-329.	3.1	29
28	<i>In Situ</i> Monitoring of Laser-Induced Periodic Surface Structures Formation on Polymer Films by Grazing Incidence Small-Angle X-ray Scattering. Langmuir, 2015, 31, 3973-3981.	1.6	29
29	Effect of wavelength, deposition temperature and substrate type on cobalt ferrite thin films grown by pulsed laser deposition. Applied Surface Science, 2018, 452, 19-31.	3.1	29
30	Improvement of electrospun polymer fiber meshes pore size by femtosecond laser irradiation. Applied Surface Science, 2011, 257, 4091-4095.	3.1	27
31	Effect of wavelength on the laser cleaning of polychromes on wood. Journal of Cultural Heritage, 2003, 4, 243-249.	1.5	26
32	UV, visible and IR laser interaction with gelatine. Journal of Physics: Conference Series, 2007, 59, 571-574.	0.3	24
33	Quantitative Nanomechanical Properties of Multilayer Films Made of Polysaccharides through Spray Assisted Layer-by-Layer Assembly. Biomacromolecules, 2017, 18, 169-177.	2.6	24
34	Electroporation chip for adherent cells on photochemically modified polymer surfaces. Applied Physics Letters, 2008, 92, 013901.	1.5	23
35	Laser removal of water repellent treatments on limestone. Applied Surface Science, 2003, 219, 290-299.	3.1	22
36	Relaxation and Conductivity in P3HT/PC ₇₁ BM Blends As Revealed by Dielectric Spectroscopy. Macromolecules, 2016, 49, 2709-2717.	2.2	22

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37	Influence of polymer molecular weight on the UV ablation of doped poly(methyl methacrylate). <i>Applied Surface Science</i> , 2005, 248, 254-258.	3.1	21
38	Laser ablation and deposition of wide bandgap semiconductors: plasma and nanostructure of deposits diagnosis. <i>Journal of Nanoparticle Research</i> , 2011, 13, 6621-6631.	0.8	20
39	Laser cleaning of terracotta decorations of the portal of Palos of the Cathedral of Seville. <i>Journal of Cultural Heritage</i> , 2005, 6, 321-327.	1.5	17
40	Pulsed laser deposition of polymers doped with fluorescent molecular sensors. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 84, 171-180.	1.1	17
41	Stoichiometric magnetite grown by infrared nanosecond pulsed laser deposition. <i>Applied Surface Science</i> , 2013, 282, 642-651.	3.1	17
42	Optical properties of bismuth nanostructures towards the ultrathin film regime. <i>Optical Materials Express</i> , 2019, 9, 2924.	1.6	17
43	Examination of the influence of molecular weight on polymer laser ablation: polystyrene at 248 nm. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 92, 1043-1046.	1.1	14
44	Characterization of cinematographic films by Laser Induced Breakdown Spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2007, 62, 1612-1617.	1.5	13
45	Laser-induced surface structures on gold-coated polymers: Influence of morphology on surface-enhanced Raman scattering enhancement. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	13
46	Laser induced periodic surface structures formation by nanosecond laser irradiation of poly (ethylene terephthalate) reinforced with Expanded Graphite. <i>Applied Surface Science</i> , 2018, 436, 1193-1199.	3.1	13
47	Wrinkling poly(trimethylene 2,5-furanoate) free-standing films: Nanostructure formation and physical properties. <i>Polymer</i> , 2020, 202, 122666.	1.8	13
48	Optimisation of Raman analysis of walnut oil used as protective coating of Galician granite monuments. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 1449-1454.	1.2	12
49	On the assessment by grazing-incidence small-angle X-ray scattering of replica quality in polymer gratings fabricated by nanoimprint lithography. <i>Journal of Applied Crystallography</i> , 2014, 47, 613-618.	1.9	12
50	Patterning Conjugated Polymers by Laser: Synergy of Nanostructure Formation in the All-Polymer Heterojunction P3HT/PCDTBT. <i>Langmuir</i> , 2018, 34, 115-125.	1.6	12
51	Morphology and Ferroelectric Properties of Semiconducting/Ferroelectric Polymer Bilayers. <i>Macromolecules</i> , 2019, 52, 7396-7402.	2.2	12
52	Spectroscopic studies of laser ablation plumes of artwork materials. <i>Applied Surface Science</i> , 2003, 211, 128-135.	3.1	11
53	Self-organized single crystal mixed magnetite/cobalt ferrite films grown by infrared pulsed-laser deposition. <i>Applied Surface Science</i> , 2015, 359, 480-485.	3.1	11
54	Formation of polymer nanoparticles by UV pulsed laser ablation of poly (bisphenol A carbonate) in liquid environment. <i>Applied Surface Science</i> , 2017, 418, 522-529.	3.1	11

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55	Nanosecond laser-induced interference grating formation on silicon. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 225302.	1.3	11
56	Examination of photoproducts in the ablation plume of doped PMMA. <i>Applied Physics A: Materials Science and Processing</i> , 2004, 79, 1357-1360.	1.1	10
57	Laser nanostructuring of polymers: Ripples and applications. <i>AIP Conference Proceedings</i> , 2012, , .	0.3	10
58	Microstructuring of soft organic matter by temporally shaped femtosecond laser pulses. <i>Applied Surface Science</i> , 2014, 302, 231-235.	3.1	10
59	Laterally-resolved mechanical and tribological properties of laser-structured polymer nanocomposites. <i>Polymer</i> , 2019, 168, 178-184.	1.8	10
60	Femtosecond Double-Pulse Laser Ablation and Deposition of Co-Doped ZnS Thin Films. <i>Nanomaterials</i> , 2020, 10, 2229.	1.9	10
61	Generation of multiple triplet states in an orthogonal bodipy dimer: a breakthrough spectroscopic and theoretical approach. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 5929-5938.	1.3	10
62	Morphological and chemical modifications and plume ejection following UV laser ablation of doped polymers: Dependence on polymer molecular weight. <i>Applied Surface Science</i> , 2007, 253, 7820-7825.	3.1	9
63	Probing structure development in Poly(vinylidene Fluoride) during 3-D printing by small and wide angle X-ray scattering. <i>Polymer</i> , 2022, 249, 124827.	1.8	9
64	Laser induced periodic surface structures on polymer nanocomposites with carbon nanoadditives. <i>Applied Physics A: Materials Science and Processing</i> , 2017, 123, 1.	1.1	8
65	Quantitative assessment by local probe methods of the mechanical and electrical properties of inkjet-printed PEDOT:PSS thin films over Indium Tin Oxide substrates. <i>Organic Electronics</i> , 2019, 70, 258-263.	1.4	8
66	Laser nanostructuring of thin films of PEDOT:PSS on ITO: Morphology, molecular structure and electrical properties. <i>Applied Surface Science</i> , 2020, 509, 145350.	3.1	8
67	Photophysical and structural modulation of poly(3-hexylthiophene) nanoparticles via surfactant-polymer interaction. <i>Polymer</i> , 2021, 218, 123515.	1.8	8
68	Analysis of plume following ultraviolet laser ablation of doped polymers: Dependence on polymer molecular weight. <i>Journal of Applied Physics</i> , 2007, 101, 033106.	1.1	7
69	Mapping the Structural Order of Laser-Induced Periodic Surface Structures in Thin Polymer Films by Microfocus Beam Grazing Incidence Small-Angle X-ray Scattering. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 3162-3169.	4.0	7
70	Ablation dynamics of Co/ZnS targets under double pulse femtosecond laser irradiation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3522-3529.	1.3	7
71	Functional nanostructured surfaces induced by laser on fullerene thin films. <i>Applied Surface Science</i> , 2019, 476, 668-675.	3.1	7
72	Red/NIR Thermally Activated Delayed Fluorescence from Aza-BODIPYs. <i>Chemistry - A European Journal</i> , 2020, 26, 16080-16088.	1.7	7

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73	Anisotropy engineering of soft thin films in the undulated magnetic state. Journal of Magnetism and Magnetic Materials, 2020, 514, 167149.	1.0	7
74	Straightforward Patterning of Functional Polymers by Sequential Nanosecond Pulsed Laser Irradiation. Nanomaterials, 2021, 11, 1123.	1.9	7
75	Laser-induced fluorescence and thermoluminescence response of a Na ⁺ Ca rich silicate. Radiation Measurements, 2006, 41, 971-975.	0.7	6
76	Infrared and ultraviolet laser ablation mechanisms of SiO ₂ . Applied Physics A: Materials Science and Processing, 2006, 85, 33-37.	1.1	6
77	IR laser ablation of doped poly(methyl methacrylate). Applied Surface Science, 2007, 253, 6442-6446.	3.1	6
78	Gold coating of micromechanical DNA biosensors by pulsed laser deposition. Journal of Applied Physics, 2012, 112, .	1.1	6
79	Flexible, multifunctional nanoribbon arrays of palladium nanoparticles for transparent conduction and hydrogen detection. Applied Surface Science, 2019, 470, 212-218.	3.1	6
80	Nanostructural organization of thin films prepared by sequential dip-coating deposition of poly(butylene succinate), poly(μ -caprolactone) and their copolyesters (PBS-ran-PCL). Polymer, 2021, 226, 123812.	1.8	6
81	Laser Interactions with Organic/Polymer Materials. , 2020, , 1-49.		6
82	Synergistic Effect of Fullerenes on the Laser-Induced Periodic Surface Structuring of Poly(3-Hexyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.0	5
83	Laser-Induced Periodic Surface Structuring of Poly(trimethylene terephthalate) Films Containing Tungsten Disulfide Nanotubes. Polymers, 2020, 12, 1090.	2.0	5
84	Form and magnetic birefringence in undulated Permalloy/PET films. Optics Express, 2019, 27, 21285.	1.7	5
85	Submicro foaming in biopolymers by UV pulsed laser irradiation. , 2006, 6261, 404.		4
86	Pulsed Laser Deposition of Polymers Doped with Fluorescent Probes. Application to Environmental Sensors. Journal of Physics: Conference Series, 2007, 59, 305-309.	0.3	4
87	Surface modification of a biodegradable composite by UV laser ablation: <i>in vitro</i> biological performance. Journal of Tissue Engineering and Regenerative Medicine, 2010, 4, n/a-n/a.	1.3	4
88	Resonant soft x-ray scattering unravels the hierarchical morphology of nanostructured bulk heterojunction photovoltaic thin films. Physical Review Materials, 2018, 2, .	0.9	4
89	BINOL blocks as accessible triplet state modulators in BODIPY dyes. Chemical Communications, 2022, 58, 6385-6388.	2.2	4
90	Evidence of anomalous switching of the in-plane magnetic easy axis with temperature in Fe ₃ O ₄ film on SrTiO ₃ :Nb by v-MOKE and ferromagnetic resonance. Nanoscale, 2019, 11, 19870-19876.	2.8	3

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91	Synthesis of smooth amorphous thin films of silicon carbide with controlled properties through pulsed laser deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	1.1	3
92	Experimental and theoretical study of the Nd:YAG laser removal of beeswax on Galician granite at 355 nm. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 741-746.	1.1	2
93	From the Lab to the Scaffold: Laser Cleaning of Polychromed Architectonic Elements and Sculptures. <i>Springer Proceedings in Physics</i> , 2007, , 185-189.	0.1	2
94	Laser Paint Interactions Studied by Optical Emission Spectroscopy and Pump and Probe Analysis of the Ablation Plume. <i>Springer Proceedings in Physics</i> , 2005, , 277-284.	0.1	1
95	Fluence dependent electrical conductivity in aluminium thin films grown by infrared pulsed laser deposition. <i>Applied Surface Science</i> , 2016, 387, 1188-1194.	3.1	1
96	A Comprehensive Study of the Coloration Effect Associated with Laser Cleaning of Pollution Encrustations from Stonework. , 2007, , 105-114.		1
97	Experimental and theoretical study of the ND:YAG laser removal of beeswax on Galician granite at 355 nm. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 741.	1.1	1
98	Laser Nanofabrication of Soft Matter. <i>Springer Series in Materials Science</i> , 2014, , 325-344.	0.4	1
99	Laser Interactions with Organic/Polymer Materials. , 2021, , 165-212.		1
100	Laser Removal of Protective Treatments on Limestone. , 2005, , 149-155.		0
101	A comprehensive study of the coloration effect associated with laser cleaning of pollution encrustations from stonework. , 0, , .		0
102	Fundamental studies of the effect of molecular weight on the UV laser ablation of polymers. , 0, , .		0
103	Effect of molecular weight on the physicochemical modifications induced in the UV laser ablation of doped polymers. <i>Journal of Physics: Conference Series</i> , 2007, 59, 193-197.	0.3	0
104	Structural and magnetic characterization of magnetite deposits prepared by infrared pulsed laser deposition. , 2013, , .		0
105	Laser-Induced Periodic Surface Structures (LIPSS) on Polymer Surfaces. , 2019, , 143-155.		0
106	Photoinduced Resist-free Imprinting (PRI) in fullerene thin films as revealed by Grazing Incidence Small-angle X-ray scattering. <i>Applied Surface Science</i> , 2021, 548, 149254.	3.1	0
107	Formation of LIPSS in nanocomposites of Poly (ethylene terephthalate)/Expanded Graphite by using UV nanosecond laser pulses. , 2016, , .		0
108	Laser Nanostructuring of Polymers. , 2018, , 471-497.		0

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109	Laser-Induced Breakdown Spectroscopy of Cinematographic Film. , 0, , 421-428.		0