# Antonio Miotello

### List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

402 papers **10,45**8 citations

50 h-index 86 g-index

409 ext. papers

11,402 ext. citations

avg, IF

6.4 L-index

#	Paper	IF	Citations
402	Hydrogen production by photocatalytic water-splitting using Cr- or Fe-doped TiO2 composite thin films photocatalyst. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 5337-5346	6.7	334
401	Critical assessment of thermal models for laser sputtering at high fluences. <i>Applied Physics Letters</i> , <b>1995</b> , 67, 3535-3537	3.4	325
400	Comments on explosive mechanisms of laser sputtering. <i>Applied Surface Science</i> , <b>1996</b> , 96-98, 205-215	6.7	237
399	New insights on the mechanism of palladium-catalyzed hydrolysis of sodium borohydride from 11B NMR measurements. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 17024-33	3.4	232
398	Laser-induced phase explosion: new physical problems when a condensed phase approaches the thermodynamic critical temperature. <i>Applied Physics A: Materials Science and Processing</i> , <b>1999</b> , 69, S67-S	573 <sup>6</sup>	224
397	Promoting effect of transition metal-doped Co <b>B</b> alloy catalysts for hydrogen production by hydrolysis of alkaline NaBH4 solution. <i>Journal of Catalysis</i> , <b>2010</b> , 271, 315-324	7.3	216
396	Cobalt-Boride: An efficient and robust electrocatalyst for Hydrogen Evolution Reaction. <i>Journal of Power Sources</i> , <b>2015</b> , 279, 620-625	8.9	188
395	CoNiB nanocatalyst for efficient hydrogen evolution reaction in wide pH range. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 192, 126-133	21.8	175
394	Hydrogen generation by hydrolysis of NaBH4 with efficient Co <b>PB</b> catalyst: A kinetic study.  Journal of Power Sources, <b>2009</b> , 188, 411-420	8.9	165
393	Pd-C powder and thin film catalysts for hydrogen production by hydrolysis of sodium borohydride. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 287-292	6.7	151
392	Improved visible light photocatalytic activity of TiO2 co-doped with Vanadium and Nitrogen. <i>Applied Catalysis B: Environmental</i> , <b>2012</b> , 126, 47-54	21.8	148
391	Efficient catalytic properties of CoNiPB catalyst powders for hydrogen generation by hydrolysis of alkaline solution of NaBH4. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 2893-2900	6.7	147
390	Studies on catalytic behavior of Co <b>N</b> i <b>B</b> in hydrogen production by hydrolysis of NaBH4. <i>Journal of Molecular Catalysis A</i> , <b>2009</b> , 298, 1-6		143
389	Systematic investigation on the interaction of bovine serum albumin with ZnO nanoparticles using fluorescence spectroscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2013</b> , 102, 257-64	6	142
388	Copper and Nitrogen co-doped TiO2 photocatalyst with enhanced optical absorption and catalytic activity. <i>Applied Catalysis B: Environmental</i> , <b>2015</b> , 168-169, 333-341	21.8	141
387	Laser-pulse sputtering of aluminum: Vaporization, boiling, superheating, and gas-dynamic effects. <i>Physical Review E</i> , <b>1994</b> , 50, 4716-4727	2.4	139
386	Metal Boride-Based Catalysts for Electrochemical Water-Splitting: A Review. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1906481	15.6	138

385	Hydrogen generation by hydrolysis of alkaline NaBH4 solution with Cr-promoted Co <b>B</b> amorphous catalyst. <i>Applied Catalysis B: Environmental</i> , <b>2009</b> , 92, 68-74	21.8	136
384	Progress in CoB related catalyst for hydrogen production by hydrolysis of boron-hydrides: A review and the perspectives to substitute noble metals. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 1429-1464	6.7	132
383	Nanoparticle-assembled Co-B thin film for the hydrolysis of ammonia borane: A highly active catalyst for hydrogen production. <i>Applied Catalysis B: Environmental</i> , <b>2010</b> , 95, 137-143	21.8	111
382	Thin films of CoB prepared by pulsed laser deposition as efficient catalysts in hydrogen producing reactions. <i>Applied Catalysis A: General</i> , <b>2007</b> , 323, 18-24	5.1	109
381	Laser-induced phase explosion: new physical problems when a condensed phase approaches the thermodynamic critical temperature. <i>Applied Physics A: Materials Science and Processing</i> , <b>1999</b> , 69, S67-S	373 <sup>6</sup>	106
380	Co3O4 nanoparticles assembled coatings synthesized by different techniques for photo-degradation of methylene blue dye. <i>Applied Catalysis B: Environmental</i> , <b>2013</b> , 132-133, 204-211	21.8	103
379	Kinetic Features of the Platinum Catalyzed Hydrolysis of Sodium Borohydride from 11B NMR Measurements. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 18744-18750	3.8	102
378	Physically and chemically synthesized TiO2 composite thin films for hydrogen production by photocatalytic water splitting. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 6896-6903	6.7	102
377	Efficient photocatalytic degradation of organic water pollutants using VN-codoped TiO2 thin films. <i>Applied Catalysis B: Environmental</i> , <b>2014</b> , 150-151, 74-81	21.8	101
376	Structured and Nanoparticle Assembled Co <b>B</b> Thin Films Prepared by Pulsed Laser Deposition: A Very Efficient Catalyst for Hydrogen Production. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 6968-6976	3.8	100
375	Comprehensive studies on the interaction of copper nanoparticles with bovine serum albumin using various spectroscopies. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 113, 276-84	6	94
374	Efficient indium tin oxide/Cr-doped-TiO2 multilayer thin films for H2 production by photocatalytic water-splitting. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 9581-9590	6.7	87
373	On the mechanisms of target modification by ion beams and laser pulses. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1997</b> , 122, 374-400	1.2	86
372	Primary and secondary mechanisms in laser-pulse sputtering. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1992</b> , 65, 187-199	1.2	85
371	Clustering of gold atoms in ion-implanted silica after thermal annealing in different atmospheres. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	82
370	Efficient Co-B-codoped TiO2 photocatalyst for degradation of organic water pollutant under visible light. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 183, 242-253	21.8	81
369	Co-Mo-B Nanoparticles as a non-precious and efficient Bifunctional Electrocatalyst for Hydrogen and Oxygen Evolution. <i>Electrochimica Acta</i> , <b>2017</b> , 232, 64-71	6.7	79
368	Pulsed laser deposition of Co3O4 nanoparticles assembled coating: Role of substrate temperature to tailor disordered to crystalline phase and related photocatalytic activity in degradation of methylene blue. <i>Applied Catalysis A: General</i> , <b>2012</b> , 423-424, 21-27	5.1	76

367	Two stages in the kinetics of gold cluster growth in ion-implanted silica during isothermal annealing in oxidizing atmosphere. <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 4249-4254	2.5	69
366	A unique amorphous cobalt-phosphide-boride bifunctional electrocatalyst for enhanced alkaline water-splitting. <i>Applied Catalysis B: Environmental</i> , <b>2019</b> , 259, 118051	21.8	68
365	Contribution of vaporization and boiling to thermal-spike sputtering by ions or laser pulses. <i>Physical Review E</i> , <b>1999</b> , 60, 2616-25	2.4	64
364	Spectroscopic characterization of thermally treated carbon-rich Si1\(\mathbb{R}\)Cx films. <i>Thin Solid Films</i> , <b>1993</b> , 223, 114-121	2.2	64
363	Highly photo-catalytically active hierarchical 3D porous/urchin nanostructured Co3O4 coating synthesized by Pulsed Laser Deposition. <i>Applied Catalysis B: Environmental</i> , <b>2015</b> , 166-167, 475-484	21.8	62
362	Dehydrogenation of Ammonia Borane with transition metal-doped Co <b>B</b> alloy catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2397-2406	6.7	62
361	Catalytic effect on hydrogen desorption in Nb-doped microcrystalline MgH2. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 5212-5214	3.4	62
360	Formation of an intermediate band in the energy gap of TiO2 by CuN-codoping: First principles study and experimental evidence. <i>Solar Energy Materials and Solar Cells</i> , <b>2014</b> , 125, 120-126	6.4	60
359	Microstructure, oxidation and H2-permeation resistance of TiAlN films deposited by DC magnetron sputtering technique. <i>Surface and Coatings Technology</i> , <b>2004</b> , 180-181, 9-14	4.4	59
358	Efficient H2 production by water-splitting using indium <b>li</b> n-oxide/V-doped TiO2 multilayer thin film photocatalyst. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 6519-6528	6.7	58
357	Revisiting the thermal-spike concept in ion-surface interactions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1997</b> , 122, 458-469	1.2	58
356	Sievert-type apparatus for the study of hydrogen storage in solids. <i>Measurement Science and Technology</i> , <b>2004</b> , 15, 127-130	2	56
355	Dependence of photocatalysis on charge carrier separation in Ag-doped and decorated TiO2 nanocomposites. <i>Catalysis Science and Technology</i> , <b>2016</b> , 6, 8428-8440	5.5	55
354	Laser-pulse sputtering of atoms and molecules Part II. Recondensation effects. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1994</b> , 91, 682-691	1.2	55
353	Gas transport through nanocomposite membrane composed by polyethylene with dispersed graphite nanoplatelets. <i>Journal of Membrane Science</i> , <b>2014</b> , 463, 196-204	9.6	51
352	Co oxide nanostructures for electrocatalytic water-oxidation: effects of dimensionality and related properties. <i>Nanoscale</i> , <b>2018</b> , 10, 8806-8819	7.7	47
351	Co-B catalyst supported over mesoporous silica for hydrogen production by catalytic hydrolysis of Ammonia Borane: A study on influence of pore structure. <i>Applied Catalysis B: Environmental</i> , <b>2013</b> , 140-141, 125-132	21.8	46
350	Experimental and Theoretical Investigations on the Activity and Stability of Substitutional and Interstitial Boron in TiO2 Photocatalyst. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 18581-18590	3.8	45

## (2014-2017)

349	Tungsten-doped TiO/reduced Graphene Oxide nano-composite photocatalyst for degradation of phenol: A system to reduce surface and bulk electron-hole recombination. <i>Journal of Environmental Management</i> , <b>2017</b> , 203, 364-374	7.9	44
348	Structural evolution of Fe-Al multilayer thin films for different annealing temperatures. <i>Journal of Physics Condensed Matter</i> , <b>2001</b> , 13, 811-821	1.8	44
347	Pulsed-laser sputtering of atoms and molecules. Part I: Basic solutions for gas-dynamic effects. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , <b>1993</b> , 57, 145-158		44
346	Pulsed Laser Deposition of Co-nanoparticles embedded on B-thin film: A very efficient catalyst produced in a single-step process. <i>Applied Catalysis B: Environmental</i> , <b>2011</b> , 103, 31-38	21.8	43
345	On the debris phenomenon with laser-sputtered polymers. <i>Applied Physics Letters</i> , <b>1992</b> , 60, 2980-2982	3.4	43
344	Study of 2D MXene Cr2C material for hydrogen storage using density functional theory. <i>Applied Surface Science</i> , <b>2016</b> , 389, 88-95	6.7	42
343	Ion-beam mixing with chemical guidance IV. Thermodynamic effects without invoking thermal spikes. <i>Surface Science</i> , <b>1994</b> , 314, 275-288	1.8	42
342	Hydrogen kinetics in magnesium hydride: On different catalytic effects of niobium. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 014101	3.4	41
341	Formation of a Noncrystalline Phase in Aluminum Irradiated with a Pulsed Ruby Laser. <i>Physical Review Letters</i> , <b>1980</b> , 44, 88-91	7.4	40
340	Formation of silver nanoclusters by excimer[aser interaction in silver-exchanged soda-lime glass. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 2456-2458	3.4	39
339	Chemical and compositional changes induced by N+ implantation in amorphous SiC films. <i>Journal of Applied Physics</i> , <b>1993</b> , 74, 2013-2020	2.5	39
338	Novel geometrical effects observed in debris when polymers are laser sputtered. <i>Applied Physics Letters</i> , <b>1992</b> , 61, 2784-2786	3.4	39
337	Improved dehydrogenation of ammonia borane over Co-P-B coating on Ni: A single catalyst for both hydrolysis and thermolysis. <i>Applied Catalysis B: Environmental</i> , <b>2012</b> , 111-112, 178-184	21.8	37
336	Radiation effects in glasses. <i>Radiation Effects</i> , <b>1986</b> , 98, 39-54		37
335	Slow electrons impinging on dielectric solids. II. Implantation profiles, electron mobility, and recombination processes. <i>Physical Review B</i> , <b>1997</b> , 56, 2241-2247	3.3	36
334	Thermodynamic effects in depth profiling and ion-beam mixing without invoking thermal spikes. <i>Applied Physics Letters</i> , <b>1994</b> , 64, 2649-2651	3.4	36
333	Numerical analysis of field-assisted sodium migration in electron-irradiated glasses. <i>Journal of Physics C: Solid State Physics</i> , <b>1982</b> , 15, 5615-5621		36
332	Pulsed-laser deposition of nanostructured iron oxide catalysts for efficient water oxidation. <i>ACS Applied Materials &amp; Discours (1988)</i>	9.5	35

331	Mesoporous Co <b>B</b> nanocatalyst for efficient hydrogen production by hydrolysis of sodium borohydride. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 14685-14692	6.7	35
330	Co <b>B</b> nanoparticles supported on carbon film synthesized by pulsed laser deposition for hydrolysis of ammonia borane. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2007-2013	6.7	35
329	Structural evolution of Pd-capped Mg thin films under H2 absorption and desorption cycles. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 4817-4826	6.7	35
328	Polymer surface modification by ion implantation and reactive deposition of transparent films. <i>Surface and Coatings Technology</i> , <b>1998</b> , 103-104, 375-379	4.4	35
327	Palladium membranes prepared by r.f. magnetron sputtering for hydrogen purification. <i>Surface and Coatings Technology</i> , <b>2004</b> , 177-178, 73-79	4.4	35
326	Pulsed-laser deposition of carbon: from DLC to cluster-assembled films. <i>Thin Solid Films</i> , <b>2005</b> , 482, 2-8	2.2	35
325	Does normal boiling exist due to laser-pulse or ion bombardment?. <i>Journal of Applied Physics</i> , <b>2000</b> , 87, 3177-3179	2.5	35
324	On the thermodynamic path enabling a room-temperature, laser-assisted graphite to nanodiamond transformation. <i>Scientific Reports</i> , <b>2016</b> , 6, 35244	4.9	34
323	Ruthenium nanoparticles supported over carbon thin film catalyst synthesized by pulsed laser deposition for hydrogen production from ammonia borane. <i>Applied Catalysis A: General</i> , <b>2015</b> , 495, 23-2	.9 <sup>5.1</sup>	34
322	Ion beam induced enhanced adhesion of Au films deposited on polytetrafluoroethylene. <i>Thin Solid Films</i> , <b>2002</b> , 420-421, 565-570	2.2	33
321	Pulsed laser deposition of diamondlike carbon films on polycarbonate. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 859-865	2.5	33
320	Clustering of silver atoms in hydrogenated silverBodium exchanged glasses. <i>Applied Physics A: Materials Science and Processing</i> , <b>2000</b> , 70, 415-419	2.6	33
319	Composition changes in bombarded oxides and carbides: the distinction between ballistic, chemically guided, and chemically random behavior. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1993</b> , 80-81, 1154-1163	1.2	33
318	Enhanced H2 production from hydrolysis of sodium borohydride using Co3O4 nanoparticles assembled coatings prepared by pulsed laser deposition. <i>Applied Catalysis A: General</i> , <b>2016</b> , 515, 1-9	5.1	32
317	Enhanced hydrogen production by hydrolysis of NaBH4 using Co-B nanoparticles supported on Carbon film Catalyst synthesized by pulsed laser deposition. <i>Catalysis Today</i> , <b>2011</b> , 170, 20-26	5.3	32
316	An integrated apparatus for production and measurement of molecular hydrogen. <i>Measurement Science and Technology</i> , <b>2007</b> , 18, N21-N26	2	32
315	Deuterium storage in nanocrystalline magnesium thin films. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 1989-1	925	32
314	Pulsed laser deposition apparatus for applied research. <i>Measurement Science and Technology</i> , <b>1999</b> , 10, 27-30	2	32

313	Analysis of the hydrogen permeation properties of TiN-TiC bilayers deposited on martensitic stainless steel. <i>Surface and Coatings Technology</i> , <b>1996</b> , 83, 40-44	4.4	32
312	On the effect of Sn-doping in hematite anodes for oxygen evolution. <i>Electrochimica Acta</i> , <b>2016</b> , 214, 345-353	6.7	31
311	Pulsed laser deposition of diamond-like carbon films: reducing internal stress by thermal annealing. <i>Applied Surface Science</i> , <b>2003</b> , 208-209, 561-565	6.7	31
310	Stability, durability, and reusability studies on transition metal-doped Co <b>B</b> alloy catalysts for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 13379-13391	6.7	30
309	Polymer rigidification in graphene based nanocomposites: Gas barrier effects and free volume reduction. <i>Polymer</i> , <b>2017</b> , 121, 17-25	3.9	29
308	Co <b>PB</b> catalyst thin films prepared by electroless and pulsed laser deposition for hydrogen generation by hydrolysis of alkaline sodium borohydride: A comparison. <i>Thin Solid Films</i> , <b>2010</b> , 518, 477	9 <del>2</del> 4785	5 <sup>29</sup>
307	Effect of graphene oxide loading on TiO2: Morphological, optical, interfacial charge dynamics-A combined experimental and theoretical study. <i>Carbon</i> , <b>2019</b> , 143, 51-62	10.4	29
306	Mechanical behaviour of nitrogen-implanted aluminium alloys. <i>Surface and Coatings Technology</i> , <b>1996</b> , 83, 284-289	4.4	28
305	Mobility and surface recombination processes of primary electrons in dielectric systems during Auger electron spectroscopy. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1984</b> , 103, 279-282	2.3	28
304	Alkali migration in ion irradiated glasses. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1984</b> , 1, 511-515	1.2	28
303	Solar Concentration for Wastewaters Remediation: A Review of Materials and Technologies. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 118	2.6	27
302	Rapid hydrogenation of amorphous TiO2 to produce efficient H-doped anatase for photocatalytic water splitting. <i>Applied Catalysis A: General</i> , <b>2015</b> , 500, 69-73	5.1	26
301	Effect of annealing and nanostructuring on pulsed laser deposited WS2 for HER catalysis. <i>Applied Catalysis A: General</i> , <b>2016</b> , 510, 156-160	5.1	26
300	Nb clusters formation in Nb-doped magnesium hydride. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 061904	3.4	26
299	Sputtering process during ion implantation in glasses: mathematical and physical analysis. <i>Journal of Physics C: Solid State Physics</i> , <b>1983</b> , 16, 221-228		26
298	Nanodiamonds: Synthesis and Application in Sensing, Catalysis, and the Possible Connection with Some Processes Occurring in Space. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 4094	2.6	25
297	Influence of annealing atmosphere on metal and metal alloy nanoclusters produced by ion implantation in silica. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2001</b> , 178, 176-179	1.2	25
296	Gas-dynamic effects in the laser-pulse sputtering of AlN: is there evidence for phase explosion?. <i>Applied Surface Science</i> , <b>1998</b> , 133, 251-269	6.7	24

295	Pulsed laser deposition of glass-like cluster assembled carbon films. Carbon, 2005, 43, 2122-2127	10.4	24
294	Laser-irradiation-induced structural changes on graphite. <i>Physical Review B</i> , <b>1999</b> , 59, 13513-13516	3.3	24
293	On the origin of the different velocity peaks of particles sputtered from surfaces by laser pulses or charged-particle beams. <i>Applied Surface Science</i> , <b>1999</b> , 138-139, 44-51	6.7	24
292	Angular distribution and expansion of laser ablation plumes measured by fast intensified charge coupled device photographs. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1996</b> , 116, 257-261	1.2	24
291	Ion-beam mixing with chemical guidance. Surface Science, 1992, 268, 340-350	1.8	24
290	Cooperative transport effects in electron-irradiated glasses. <i>Physical Review Letters</i> , <b>1985</b> , 54, 1675-167	7 <b>8</b> 7.4	24
289	Heat flow in an aluminium sample undergoing melting and resolidification under irradiation by a nanosecond laser pulse. <i>Radiation Effects</i> , <b>1980</b> , 53, 7-17		24
288	Structural and mechanical properties of ta-C films grown by pulsed laser deposition. <i>Europhysics Letters</i> , <b>2000</b> , 50, 501-506	1.6	23
287	Electrochemical and corrosion behaviour of laser modified aluminium surfaces. <i>Electrochimica Acta</i> , <b>1980</b> , 25, 1497-1499	6.7	23
286	3D hierarchical nanostructures of iron oxides coatings prepared by pulsed laser deposition for photocatalytic water purification. <i>Applied Catalysis B: Environmental</i> , <b>2017</b> , 219, 401-411	21.8	22
285	CoMoBP Alloy with Enhanced Catalytic Properties for H2 Production by Hydrolysis of Ammonia Borane. <i>Topics in Catalysis</i> , <b>2012</b> , 55, 1032-1039	2.3	22
284	Ionic transport model for hydrogen permeation inducing silver nanocluster formation in silverBodium exchanged glasses. <i>Applied Physics A: Materials Science and Processing</i> , <b>1998</b> , 67, 527-529	2.6	22
283	On the application of Darken's analysis to ion-beam mixing. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1991</b> , 59-60, 517-522	1.2	22
282	Defect diffusion in ion implanted glasses. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1992</b> , 65, 387-391	1.2	22
281	Superior hydrogen production rate by catalytic hydrolysis of ammonia borane using Co-B nanoparticles supported over mesoporous silica particles. <i>Catalysis Communications</i> , <b>2012</b> , 23, 39-42	3.2	21
280	Heating effects and gas-dynamic expansion of the plasma plume produced by irradiating a solid with laser pulses. <i>Plasma Sources Science and Technology</i> , <b>1997</b> , 6, 260-269	3.5	21
279	Catalytic properties on the hydrogen desorption process of metallic additives dispersed in the MgH2 matrix. <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 446-447, 58-62	5.7	21
	Structure and optical properties of TiN films prepared by dc sputtering and by ion beam assisted		

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277	Ion-beam mixing with chemical guidance II: Analysis for positive heats of mixing. <i>Surface and Coatings Technology</i> , <b>1992</b> , 51, 343-351	4.4	21
276	Laser irradiation effects on high dose implanted Cu and Pb in polycrystalline aluminum. <i>Radiation Effects</i> , <b>1980</b> , 46, 133-139		21
275	. European Physical Journal B, <b>2002</b> , 25, 269-280	1.2	21
274	Liquid nanodroplet formation through phase explosion mechanism in laser-irradiated metal targets. <i>Physical Review E</i> , <b>2015</b> , 92, 031301	2.4	20
273	Structural and electrical properties of AlN films deposited using reactive RF magnetron sputtering for solar concentrator application. <i>Applied Surface Science</i> , <b>2012</b> , 258, 3450-3454	6.7	20
272	XPS and UPS investigation of the diamond surface oxidation by UV irradiation. <i>Diamond and Related Materials</i> , <b>2009</b> , 18, 804-807	3.5	20
271	Structural evolution of nanocrystalline PdMg bilayers under deuterium absorption and desorption cycles. <i>Thin Solid Films</i> , <b>2004</b> , 469-470, 350-355	2.2	20
270	Hydrogen permeation apparatus with thermal desorption spectroscopy capabilities. <i>Measurement Science and Technology</i> , <b>1995</b> , 6, 1605-1611	2	20
269	Metal-ceramic ion-beam mixing: a quest for general principles. <i>Surface and Coatings Technology</i> , <b>1996</b> , 83, 134-145	4.4	20
268	Hydrogen dimerization process: A probe for investigation of the alpha -SiO2 structure. <i>Physical Review B</i> , <b>1993</b> , 47, 14187-14192	3.3	20
267	Heavy ion irradiation of glasses: Enhanced diffusion and preferential sputtering of alkali elements. <i>Radiation Effects</i> , <b>1986</b> , 98, 101-108		20
266	Characteristics of glass composition modification during heavy ion irradiation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1987</b> , 19-20, 948-953	1.2	20
265	Pulsed laser deposition of Co3O4 nanocatalysts for dye degradation and CO oxidation. <i>Applied Surface Science</i> , <b>2014</b> , 302, 105-108	6.7	19
264	Simulation of phase explosion in the nanosecond laser ablation of aluminum. <i>Journal of Colloid and Interface Science</i> , <b>2017</b> , 489, 126-130	9.3	19
263	The role of oxygen in the one step amination process of nanocrystalline diamond surface. <i>Diamond and Related Materials</i> , <b>2011</b> , 20, 990-994	3.5	19
262	DIFFERENTIAL, TOTAL, AND TRANSPORT CROSS SECTIONS FOR ELASTIC SCATTERING OF LOW ENERGY POSITRONS BY NEUTRAL ATOMS (Z= 1½2,E= 500½000 eV). <i>Atomic Data and Nuclear Data Tables</i> , <b>1998</b> , 69, 1-100	2	19
261	Structural evolution of FeAl multilayers submitted to thermal annealing. <i>Thin Solid Films</i> , <b>2003</b> , 433, 205-210	2.2	19
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259	On the role of thermal processes in sputtering and composition changes due to ions or laser pulses. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1998</b> , 141, 49-60	1.2	18
258	Elastic constants of cubic boron nitride films. <i>Applied Physics Letters</i> , <b>2000</b> , 77, 2168-2170	3.4	18
257	Spectrophotometric study of oxide growth on arc evaporated TiN and ZrN coatings during hot air oxidation tests. <i>Thin Solid Films</i> , <b>1996</b> , 290-291, 289-293	2.2	18
256	Alkali-metal segregation at glass surfaces during electron irradiation. <i>Physical Review B</i> , <b>1991</b> , 43, 3831	-3,836	18
255	Field-assisted sodium migration in glasses during medium-energy proton irradiation. <i>Journal of Physics C: Solid State Physics</i> , <b>1982</b> , 15, 5623-5627		18
254	Cobalt-Boride Nanostructured Thin Films with High Performance and Stability for Alkaline Water Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 16651-16658	8.3	17
253	Atoms and Nanoparticles of Transition Metals as Catalysts for Hydrogen Desorption from Magnesium Hydride. <i>Journal of Nanomaterials</i> , <b>2011</b> , 2011, 1-11	3.2	17
252	Influence of post-implantation thermal and laser annealing on the stability of metalllloy nanoclusters in silica. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2001</b> , 175-177, 410-416	1.2	17
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250	Oxide growth at a Si surface. <i>Thin Solid Films</i> , <b>1994</b> , 241, 383-387	2.2	17
249	A note on enhanced diffusion and desorption processes in electron-irradiated glasses. <i>Journal of Physics C: Solid State Physics</i> , <b>1986</b> , 19, 445-452		17
248	Improved H2 production rate by hydrolysis of Ammonia Borane using quaternary alloy catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 3313-3322	6.7	16
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246	Influence of nano-level molecular packing on the gas transport properties in amine-modified epoxy resins. <i>Polymer</i> , <b>2015</b> , 58, 130-138	3.9	16
245	Slow electrons impinging on dielectric solids. I. Basic aspects. <i>Physical Review B</i> , <b>1997</b> , 56, 2234-2240	3.3	16
244	Structure and mechanical properties of low stress tetrahedral amorphous carbon films prepared by pulsed laser deposition. <i>European Physical Journal B</i> , <b>2002</b> , 25, 269-280	1.2	16
243	Hard coating adhesion on ion implanted polymer surfaces. <i>Thin Solid Films</i> , <b>2000</b> , 377-378, 760-765	2.2	16
242	Monte Carlo simulation of positron-stimulated secondary electron emission from solids. <i>Physical Review B</i> , <b>2000</b> , 61, 5979-5986	3.3	16

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240	Silver cluster formation in ion-exchanged waveguides: processing technique and phenomenological model. <i>Journal of Non-Crystalline Solids</i> , <b>1999</b> , 253, 261-267	3.9	16
239	Chemical, mechanical and electrical properties of CNx-films produced by reactive sputtering and N+-implantation in carbon films. <i>Applied Surface Science</i> , <b>1996</b> , 99, 273-284	6.7	16
238	Titanium nitride coatings obtained using new apparatus for ion beam assisted deposition. <i>Surface and Coatings Technology</i> , <b>1991</b> , 49, 150-154	4.4	16
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234	An all-optical single-step process for production of nanometric-sized fluorescent diamonds. <i>Nanoscale</i> , <b>2018</b> , 10, 5738-5744	7.7	15
233	The modeling and synthesis of nanodiamonds by laser ablation of graphite and diamond-like carbon in liquid-confined ambient. <i>Applied Physics A: Materials Science and Processing</i> , <b>2018</b> , 124, 1	2.6	15
232	Time-dependent evolution of thin TiN films prepared by ion beam assisted deposition. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 5566-5572	2.5	15
231	Fractal aspects related to the Si oxidation process. <i>Physical Review B</i> , <b>1995</b> , 51, 5469-5472	3.3	15
230	Role of thermal diffusion in the redistribution of Cu during pulsed laser irradiating of Cu-implanted Al. <i>Applied Physics Letters</i> , <b>1982</b> , 40, 135-137	3.4	15
229	Wastewater remediation with ZnO photocatalysts: Green synthesis and solar concentration as an economically and environmentally viable route to application. <i>Journal of Environmental Management</i> , <b>2021</b> , 286, 112226	7.9	15
228	Fast and Sensitive Detection of Paramagnetic Species Using Coupled Charge and Spin Dynamics in Strongly Fluorescent Nanodiamonds. <i>ACS Applied Materials &amp; Amp; Interfaces</i> , <b>2019</b> , 11, 24412-24422	9.5	14
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	Growth of Pb-nanowires in one single process by co-sputtering of AlPb targets. Surface and	4.4	
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