Robert Huszank

List of Publications by Year
in descending order

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45 papers	631 citations	623188 14 h-index	676716 22 g-index
46 all docs	46 docs citations	46 times ranked	741 citing authors

#	Article	IF	Citations
1	Photophysics and photochemistry of kinetically labile, water-soluble porphyrin complexes. Coordination Chemistry Reviews, 2006, 250, 1792-1803.	9.5	66
2	Chemical changes in PMMA as a function of depth due to proton beam irradiation. Materials Chemistry and Physics, 2011, 130, 702-707.	2.0	41
3	Degradation of surfactants by hydroxyl radicals photogenerated from hydroxoiron(iii) complexes. Photochemical and Photobiological Sciences, 2003, 2, 960-966.	1.6	34
4	⁴He⁺ Ion Beam Irradiation Induced Modification of Poly(dimethylsiloxane). Characterization by Infrared Spectroscopy and Ion Beam Analytical Techniques. Langmuir, 2011, 27, 3842-3848.	1.6	32
5	A heme-like, water-soluble iron(ii) porphyrin: thermal and photoinduced properties, evidence for sitting-atop structure. Chemical Communications, 2005, , 224-226.	2.2	29
6	Fabrication of optical devices in poly(dimethylsiloxane) by proton microbeam. Optics Communications, 2010, 283, 176-180.	1.0	25
7	Air-stable, heme-like water-soluble iron(II) porphyrin: in situ preparation and characterization. Journal of Biological Inorganic Chemistry, 2007, 12, 681-690.	1.1	24
8	Investigation of chemical changes in PMMA induced by 1.6â€¯MeV He+ irradiation by ion beam analytical methods (RBS-ERDA) and infrared spectroscopy (ATR-FTIR). Nuclear Instruments & Methods in Physics Research B, 2019, 450, 364-368.	0.6	23
9	Ion-Energy Dependency in Proton Irradiation Induced Chemical Processes of Poly(dimethylsiloxane). Journal of Physical Chemistry C, 2013, 117, 25884-25889.	1.5	21
10	Determination of the density of siliconâ€“nitride thin films by ion-beam analytical techniques (RBS, PIXE,) Tj ETQq0 0 0 rgBT /Overlock 1	0.7	20
11	Study of individual atmospheric aerosol particles at the Debrecen ion microprobe. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2236-2240.	0.6	19
12	PDMS patterning by proton beam. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2296-2298.	0.6	18
13	Compaction of poly(dimethylsiloxane) (PDMS) due to proton beam irradiation. Applied Surface Science, 2011, 257, 4612-4615.	3.1	17
14	Micro-ERDA, micro-RBS and micro-PIXE techniques in the investigation of fish otoliths. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2132-2135.	0.6	15
15	Direct Trace Element Analysis of Liquid Blood Samples by In-Air Ion Beam Analytical Techniques (PIXEâ€“PIGE). Analytical Chemistry, 2017, 89, 1558-1564.	3.2	14
16	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math> -induced reactions on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>In</mml:mi><mml:mprescripts /><mml:none /><mml:mn>115</mml:mn></mml:mmultiscripts></mml:math> : Cross section measurements and statistical model analysis. Physical Review C, 2018, 97, .	3.1	13
17	Development of a new in-air micro-PIXE set-up with in-vacuum charge measurements in Atomki. Nuclear Instruments & Methods in Physics Research B, 2015, 362, 167-171.	0.6	12
18	Wide range control in the elastic properties of PDMS polymer by ion beam (H +) irradiation. Polymer Degradation and Stability, 2018, 152, 253-258.	2.7	12

#	ARTICLE	IF	CITATIONS
19	Cross section of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math> -induced reactions on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Au</mml:mi><mml:mprescripts /><mml:none /><mml:mn>197</mml:mn></mml:mmultiscripts></mml:math> at sub-Coulomb energies. Physical Review C, 2019, 100, .	1.1	12
20	Investigation of hydrogen depletion of organic materials upon ion beam irradiation by simultaneous micro-RBS and micro-ERDA techniques. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2197-2201.	0.6	11
21	Ion beam analysis of golden threads from Romanian medieval textiles. Nuclear Instruments & Methods in Physics Research B, 2015, 348, 285-290.	0.6	11
22	Tilted pillar array fabrication by the combination of proton beam writing and soft lithography for microfluidic cell capture: Part 1 Design and feasibility. Electrophoresis, 2016, 37, 498-503.	1.3	11
23	Resonance strengths in the N14 (p,Î³)O15 astrophysical key reaction measured with activation. Physical Review C, 2019, 100, .	1.1	11
24	Low-energy Measurement of the ⁹⁶Zr(Î±,n)⁹⁹Mo Reaction Cross Section and Its Impact on Weak r-process Nucleosynthesis. Astrophysical Journal, 2021, 908, 202.	1.6	11
25	Improvement in mixing efficiency of microfluidic passive mixers functionalized by microstructures created with proton beam lithography. Chemical Engineering Science, 2022, 247, 117006.	1.9	11
26	Refractive index depth profile and its relaxation in polydimethylsiloxane (PDMS) due to proton irradiation. Materials Chemistry and Physics, 2011, 131, 370-374.	2.0	9
27	Cross section measurement of the astrophysically important <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">O</mml:mi><mml:mprescripts /><mml:none /><mml:mn>17</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>p</mml:mi><mml:mo>,</mml:mo><mml:mi>Î³</mm width="0.16em" /><mml:mmultiscripts><mml:mi mathvariant="normal">F</mml:mi><mml:mprescripts /><mml:none /><mml:mn>18</mml:mn></mml:mmultiscripts></mml:mrow. Physical Review C, 2017, 95, .	1.1	9
28	Proton beam lithography in negative tone liquid phase PDMS polymer resist. Nuclear Instruments & Methods in Physics Research B, 2015, 348, 213-217.	0.6	8
29	Application of PIGE, BS and NRA techniques to oxygen profiling in steel joints using deuteron beam. Nuclear Instruments & Methods in Physics Research B, 2015, 348, 165-169.	0.6	8
30	Compaction of polydimethylsiloxane due to nitrogen ion irradiation and its application for creating microlens arrays. Thin Solid Films, 2017, 636, 634-638.	0.8	8
31	Adoption and Evaluation of a sample Pretreatment Protocol for Radiocarbon Dating of Cremated Bones at HEKAL. Radiocarbon, 2019, 61, 159-171.	0.8	8
32	Enhanced growth of tellurium nanowires under conditions of macromolecular crowding. Physical Chemistry Chemical Physics, 2017, 19, 16477-16484.	1.3	7
33	In-air proton beam irradiation induced radiolysis of methyl orange in aqueous solution. Radiation Physics and Chemistry, 2021, 180, 109322.	1.4	7
34	Functionalization of microfluidic devices by microstructures created with proton beam lithography. Vacuum, 2021, 190, 110295.	1.6	7
35	Fabrication of a microreactor by proton beam writing technique. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2299-2301.	0.6	6
36	Towards more reliable AFM force-curve evaluation: A method for spring constant selection, adaptive lever sensitivity calibration and fitting boundary identification. Micron, 2019, 125, 102717.	1.1	6

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37	Proton beam irradiation induces invisible modifications under the surface of painted parchment. Scientific Reports, 2022, 12, 113.	1.6	6
38	Investigation of an ion-milled Si/Cr multilayer using micro-RBS, ellipsometry and AES depth profiling techniques. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2212-2215.	0.6	5
39	Measurement of the ⁹¹Zr(p,Î³)^{92m}Nb cross section motivated by type Ia supernova nucleosynthesis. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 105202.	1.4	5
40	Proton Beam Effects on Geâ€“Se/Ag Thin Films. Physica Status Solidi (B): Basic Research, 2018, 255, 1700453.	0.7	4
41	Direct formation of high aspect ratio multiple tilted micropillar array in liquid phase PDMS by proton beam writing. European Polymer Journal, 2015, 69, 396-402.	2.6	3
42	Proton induced differential cross sections on 14N and 28Si from 3 to 4â€¯MeV. Nuclear Instruments & Methods in Physics Research B, 2019, 443, 48-56.	0.6	3
43	Activation measurement of a-induced cross sections for 197Au: analysis in the statistical model and beyond. Journal of Physics: Conference Series, 2020, 1668, 012042.	0.3	3
44	Study of the geometry of open channels in a layer-bed-type microfluidic immobilized enzyme reactor. Analytical and Bioanalytical Chemistry, 2021, 413, 6321-6332.	1.9	2
45	The Effect of Surface Inclination on AFM Force-Curve Calibration and Evaluation. , 2018, , .		0