

# Ekaterina N Stepanova

## List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Distribution of Hydrogen and Defects in the Zr/Nb Nanoscale Multilayer Coatings after Proton Irradiation. <i>Materials</i> , 2022, 15, 3332.	2.9	4
2	Effect of Structure and Hydrogen on the Short-Term Creep of Titanium Ti-2.9Al-4.5V-4.8Mo Alloy. <i>Materials</i> , 2022, 15, 3905.	2.9	2
3	Hydrogen effect on the evolution of the structural-phase state and superplastic properties of ultrafine-grained Ti-Al-V- $\text{D}_{3/4}$ alloy. , 2022, 25, 38-50.		0
4	Effect of the structural and phase state on the deformation behavior and mechanical properties of the ultrafine-grained titanium alloy (Ti-Al-V- $\text{D}_{3/4}$ ) at temperatures in the range of 293-973K. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 800, 140334.	5.6	7
5	Surface Modification of the EBM Ti-6Al-4V Alloy by Pulsed Ion Beam. <i>Metals</i> , 2021, 11, 512.	2.3	9
6	First-Principles Calculations and Experimental Study of H+-Irradiated Zr/Nb Nanoscale Multilayer System. <i>Metals</i> , 2021, 11, 627.	2.3	8
7	Effect of Radiation Exposure on the Structure and Diffusion in the Near-Surface Layer of Ultrafine-Grained Nickel. <i>Russian Physics Journal</i> , 2021, 64, 859-865.	0.4	1
8	The Effect of Irradiation of a Titanium Alloy of the Ti-6Al-4V- $\text{D}$ -System with Pulsed Electron Beams on Its Creep. <i>Russian Physics Journal</i> , 2020, 63, 932-939.	0.4	5
9	Effect of Hydrogen on the Deformation Behavior and Localization of Plastic Deformation of the Ultrafine-Grained Zr-1Nb Alloy. <i>Metals</i> , 2020, 10, 592.	2.3	7
10	Effect of pulsed electron beam irradiation on mechanical properties of alloy of the Zr-Nb-H system at temperatures in the range of 293-973K. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	1
11	Hydrogen effect on the stability of structural and phase state and mechanical properties of the ultrafine-grained alloy (Ti-Al-V-Mo system). <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
12	Positron Spectroscopy of Hydrogen-Loaded Ti-6Al-4V Alloy with Different Defect Structure. <i>Acta Physica Polonica A</i> , 2020, 137, 242-245.	0.5	0
13	Influence of beam current on microstructure of electron beam melted Ti-6Al-4V alloy. <i>Progress in Natural Science: Materials International</i> , 2019, 29, 440-446.	4.4	11
14	Hydrogen Effect on the Defect Structure Formation in the Zr - 1 WT.% Nb Alloy Under Pulsed Electron Beam Irradiation. <i>Russian Physics Journal</i> , 2019, 62, 854-860.	0.4	8
15	Positron annihilation spectroscopy study of defects in hydrogen loaded Zr-1Nb alloy. <i>Journal of Alloys and Compounds</i> , 2019, 798, 685-694.	5.5	10
16	Structure and defects evolution at temperature and activation treatments of the TiCr <sub>2</sub> intermetallic compound of Laves phase C36-type. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 10732-10743.	7.1	8
17	Hydrogen effect on Ti-6.5Al-3.5Mo-1.5Zr-0.3Si parts produced by electron beam melting. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 29380-29388.	7.1	16
18	Heat treatment of the Ti-6Al-4V alloy manufactured by electron beam melting. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	3

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19	Effect of pulsed electron beam exposure on the creep of the Zr-Nb-H system alloy. AIP Conference Proceedings, 2019, , .	0.4	1
20	Effect of hydrogen on the deformation development in the titanium alloy with a hierarchical ultrafine-grained structure in the temperature range of 293-973 K. AIP Conference Proceedings, 2019, , .	0.4	1
21	Evolution of the Structural-Phase State of a Titanium Alloy of the System Ti-Al-V-Mo During Formation of an Ultrafine-Grained Structure Using Reversible Hydrogenation. Russian Physics Journal, 2019, 62, 1330-1337.	0.4	7
22	Structure and mechanical properties of the Zr-Nb-H system alloys after pulsed electron beam exposure. AIP Conference Proceedings, 2018, , .	0.4	3
23	Effect of pulsed electron beam irradiation on the grain boundary heterodiffusion in ultrafine-grained molybdenum. Journal of Physics: Conference Series, 2018, 1115, 032028.	0.4	0
24	Effect of hydrogen on the formation of structure and mechanical properties of the ultrafine-grained titanium alloy of Ti-Al-V-Mo system. AIP Conference Proceedings, 2018, , .	0.4	1
25	Hydrogen Effect on the Creep of Titanium Alloy of the Ti-Al-V System. Defect and Diffusion Forum, 2018, 385, 212-217.	0.4	4
26	Structure Evolution and Distributions of Grain-Boundary Misorientations in Submicrocrystalline Molybdenum Irradiated with a Pulsed Electron Beam. Russian Physics Journal, 2018, 61, 1-6.	0.4	6
27	Effect of hydrogen on the creep of the ultrafine-grained zirconium Zr-1Nb alloy at 673 K. International Journal of Hydrogen Energy, 2017, 42, 22633-22640.	7.1	12
28	Effect of deformation and heat treatment on the structure, the mechanical properties, and the fracture characteristics of an ultrafine-grained Zr-1Nb alloy. Russian Metallurgy (Metally), 2017, 2017, 271-278.	0.5	2
29	Effect of hydrogen on the deformation development in titanium alloy of the Ti-Al-V system under creep. AIP Conference Proceedings, 2017, , .	0.4	1
30	Effect of Thermal Exposure on Structure of the Ultrafine-Grained Zr-1Nb Alloy. IOP Conference Series: Materials Science and Engineering, 2017, 168, 012025.	0.6	0
31	Structure and deformation behavior of ultrafine-grained Zr-2.5Nb alloy. AIP Conference Proceedings, 2017, , .	0.4	0
32	Effect of nonequilibrium hydrogen release in the ultrafine-grained Zr-1Nb alloy under the electron beam exposure. IOP Conference Series: Materials Science and Engineering, 2016, 110, 012061.	0.6	2
33	Structural and phase state and deformation behavior of the hydrogenated ultrafine-grained Zr-1Nb alloy. AIP Conference Proceedings, 2016, , .	0.4	1
34	Effect of hydrogen on the structural and phase state and defect structure of titanium alloy. AIP Conference Proceedings, 2016, , .	0.4	9
35	Effect of Hydrogen on the Development of Superplastic Deformation in the Submicrocrystalline Ti-6Al-4V Alloy. Materials Science Forum, 2016, 838-839, 344-349.	0.3	5
36	Forming and deformation behavior of the ultrafine-grained Zr-1Nb alloy. Steel in Translation, 2015, 45, 111-115.	0.3	6

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37	Properties of the VT1-0 titanium surface modified by a pulsed ion beam. <i>Technical Physics</i> , 2015, 60, 1039-1043.	0.7	8
38	Effect of hydrogen on the structural and phase state and the deformation behavior of the ultrafine-grained Zr-1Nb alloy. <i>Journal of Alloys and Compounds</i> , 2015, 645, S271-S274.	5.5	12
39	Structure and Mechanical Properties of a Zr-1Nb Alloy, Obtained by the Method of Severe Plastic Deformation. <i>Materials Today: Proceedings</i> , 2015, 2, 365-369.	1.8	6
40	Influence of Hydrogenation on Evolution of Submicrocrystalline Structure of Ti-6Al-4V Alloy upon Exposure to Temperature and Stress. <i>Russian Physics Journal</i> , 2014, 57, 423-428.	0.4	8
41	Structure and mechanical properties of ultrafine-grained Ti-6Al-4V alloy made by applying reversible hydrogen alloying. <i>Inorganic Materials: Applied Research</i> , 2013, 4, 92-97.	0.5	12
42	Effect of Pulsed Electron Beam Treatment and Hydrogen on Properties of Zirconium Alloy. <i>Applied Mechanics and Materials</i> , 2013, 302, 66-71.	0.2	3
43	Features of the plasma saturation of nanocrystalline and coarse-crystalline titanium samples with hydrogen and deuterium. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2012, 76, 721-724.	0.6	3
44	Properties and structural state of the surface layer in a zirconium alloy modified by a pulsed electron beam and saturated by hydrogen. <i>Technical Physics</i> , 2012, 57, 392-398.	0.7	23
45	Strain behavior of the hydrogenated submicrocrystalline Ti-6Al-4V alloy. <i>Russian Physics Journal</i> , 2011, 54, 690-696.	0.4	6
46	Effect of hydrogen on the low-temperature creep of a submicrocrystalline Ti-6Al-4V alloy. <i>Russian Metallurgy (Metally)</i> , 2010, 2010, 229-234.	0.5	3
47	The Study of Hydrogen Accumulation Dynamics in Ti-6Al-4V Nanocrystalline Alloy. <i>Advanced Materials Research</i> , 0, 1097, 17-21.	0.3	0
48	Research of Hydrogenation and Dehydrogenation Effect on the Structural and Phase State of the Titanium Alloy. <i>Key Engineering Materials</i> , 0, 683, 187-192.	0.4	2