

Pavol Mikula

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Efficiency Boost of the Materials Science Diffractometer E3 at BENSC: One Order of Magnitude Due to a Horizontally and Vertically Focusing Monochromator. <i>Neutron News</i> , 2008, 19, 16-19.	0.1	48
2	Effect of wavelength-dependent attenuation on neutron diffraction stress measurements at depth in steels. <i>Journal of Applied Crystallography</i> , 2011, 44, 747-754.	1.9	44
3	Investigation of short-range atomic order in glasses from the MoO ₃ -TeO ₂ system. <i>Journal of Materials Science</i> , 1988, 23, 347-352.	1.7	32
4	Optimization of a bent perfect Si(111) monochromator at a small take-off angle for use in a stress instrument. <i>Journal of Applied Crystallography</i> , 2010, 43, 654-658.	1.9	22
5	Austenite content and dislocation density in electron-beam welds of a stainless maraging steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996, 208, 131-138.	2.6	20
6	High-Resolution Neutron Powder Diffractometry on Samples of Small Dimensions. <i>Materials Science Forum</i> , 1996, 228-231, 269-274.	0.3	20
7	Neutron diffraction study on the medium and short-range order of ternary chalcogenide glasses. <i>Journal of Materials Science</i> , 1999, 34, 3669-3676.	1.7	15
8	The three-beam case of neutron diffraction in a distorted crystal. <i>Physica Status Solidi A</i> , 1985, 92, 95-100.	1.7	14
9	A double-crystal monochromator for neutron stress diffractometry. <i>Instruments and Experimental Techniques</i> , 2017, 60, 526-532.	0.1	12
10	Simultaneous diffraction effect on the rocking curve of an elastically vibrating single crystal. <i>Physica Status Solidi A</i> , 1980, 60, 549-555.	1.7	11
11	Neutron diffraction by two vibrating quartz single crystals. I. Rocking curve effects. <i>Physica Status Solidi A</i> , 1974, 26, 317-324.	1.7	10
12	Instrumentation components of focusing diffraction used in NPI, ILL, KURRI and PTB. <i>Physica B: Condensed Matter</i> , 2000, 276-278, 174-176.	1.3	10
13	Neutron diffraction by two vibrating quartz single crystals. II. Time modulation effects. <i>Physica Status Solidi A</i> , 1974, 26, 691-696.	1.7	9
14	Multiple-reflection neutron bent-perfect-crystal (BPC) monochromator. <i>Zeitschrift für Kristallographie, Supplement</i> , 2006, 2006, 205-210.	0.5	9
15	Monte Carlo simulations of parasitic and multiple reflections in elastically bent perfect single-crystals. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 634, S50-S54.	0.7	9
16	Multiple reflections (MRs) – a new challenge for high-resolution neutron diffractometry and spectrometry. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008, 586, 18-22.	0.7	8
17	Neutron diffraction studies of a double-crystal (+ <i>n</i> , - <i>m</i>) setting containing a fully asymmetric diffraction geometry of a bent perfect crystal with output beam expansion. <i>Journal of Applied Crystallography</i> , 2014, 47, 599-605.	1.9	8
18	Local Diffraction of Neutrons by Vibrating Quartz Single Crystals. <i>Physica Status Solidi A</i> , 1975, 32, 541-548.	1.7	7

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19	The study of neutron acoustic effect by neutron diffraction on InSb single crystal. <i>Physica Status Solidi A</i> , 1986, 97, 403-409.	1.7	7
20	Observation of multiple Bragg reflections of neutrons in bent perfect crystals. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 634, S108-S111.	0.7	7
21	Diffraction of neutrons by the lattice of KDP influenced by mechanical vibrations and by an electrical field. <i>Physica Status Solidi A</i> , 1974, 22, K223-K225.	1.7	6
22	Unconventional Performance of a Highly Luminous Strain/Stress Scanner for High Resolution Studies. <i>Materials Science Forum</i> , 0, 681, 426-430.	0.3	6
23	Backscattering diffraction of a pulsed neutron beam on an elastically bent single crystal. <i>Physica Status Solidi A</i> , 1984, 83, 455-460.	1.7	5
24	Experimental studies of dispersive double reflections excited in cylindrically bent perfect-crystal slabs at a constant neutron wavelength. <i>Journal of Applied Crystallography</i> , 2012, 45, 98-105.	1.9	5
25	Some properties of the neutron monochromatic beams obtained by multiple Bragg reflections realized in bent perfect single crystals. <i>Journal of Applied Crystallography</i> , 2013, 46, 128-134.	1.9	5
26	Neutron reflectivity of perfect crystals excited by high-frequency ultrasound. <i>Physica Status Solidi (B): Basic Research</i> , 1996, 195, 21-35.	0.7	4
27	On the possibility of using bent perfect crystals in TOF neutron scattering devices. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s207-s209.	1.1	4
28	New type of versatile neutron diffractometer with a double-crystal monochromator system. <i>Powder Diffraction</i> , 2015, 30, S41-S46.	0.4	4
29	High-Resolution Strain/Stress Measurements by Three-Axis Neutron Diffractometer. <i>Materials</i> , 2020, 13, 5449.	1.3	4
30	An alternative neutron diffractometer performance for strain/stress measurements. <i>Powder Diffraction</i> , 2020, 35, 185-189.	0.4	4
31	Neutron interferometer at NPI $\frac{1}{4}$. <i>European Physical Journal D</i> , 1987, 37, 993-996.	0.4	3
32	Asymmetric diffraction geometry of the bent crystal monochromator - A way to improve the properties of strain diffractometers. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s204-s206.	1.1	3
33	Through-the-thickness residual stress analysis by neutron diffraction in inoxidizable martensitic steel samples with and without tungsten carbide coating. <i>Surface and Coatings Technology</i> , 2009, 204, 650-656.	2.2	3
34	Study of asymmetric neutron diffraction including the transition from Bragg to Laue case. <i>Physica Status Solidi A</i> , 1983, 80, 483-489.	1.7	2
35	Micro Stresses in Welded High-Strength Stainless Steels. <i>Materials Research Society Symposia Proceedings</i> , 1994, 376, 403.	0.1	2
36	Investigation of Residual Strains of the Second Kind in Plastically Deformed Metallic Materials. <i>Materials Research Society Symposia Proceedings</i> , 1994, 376, 409.	0.1	2

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37	Plastic Strain Estimation from Neutron Bragg Peaks. Materials Research Society Symposia Proceedings, 1994, 376, 435.	0.1	2
38	Residual Stresses Assessment in Coated Materials: Complementarity between Neutron and X-Ray Techniques. Key Engineering Materials, 0, 465, 259-262.	0.4	2
39	Rogante Engineering Office and Neutron Physics Laboratory of CANAM - 20 years of cooperation. Neutron News, 2018, 29, 16-17.	0.1	2
40	Dispersive double bent crystal monochromators Si(111) + Si(311) and Si(111) + Si(400) with a strongly asymmetric diffraction geometry of the analyzer for powder diffractometry. Powder Diffraction, 2019, 34, S18-S22.	0.4	2
41	Neutron Multiple Reflections Excited in Cylindrically Bent Perfect Crystals and Their Possible use for High-Resolution Neutron Scattering. , 2008, , 459-470.		2
42	Small angle neutron scattering on a reactor beam irradiated silicon single crystal. Physica Status Solidi A, 1984, 82, K141-K143.	1.7	1
43	Residual stress determination by neutron diffraction in a car gear-shaft made of 20NiCrMo2 alloyed case hardening steel. Metallic Materials, 2013, 50, 213-220.	0.2	1
44	High-Resolution Analysis Using Bent Perfect Crystal in Powder Diffraction: Part I. Journal of Surface Investigation, 2020, 14, S146-S150.	0.1	1
45	Schwinger scattering of thermal neutrons on tungsten single crystals enriched by the 186 isotope. European Physical Journal D, 1981, 31, 551-554.	0.4	0
46	High-Resolution Analysis Using Bent Perfect Crystal in Powder Diffraction: Part II. Journal of Surface Investigation, 2020, 14, S151-S155.	0.1	0
47	Observation of multiple Bragg reflections accompanying forbidden Si(002) reflection in bent-perfect Si crystal. Powder Diffraction, 2021, 36, 14-19.	0.4	0
48	High Resolution Residual Strain/Stress Measurements on Three Axis Neutron Diffractometer. Advanced Materials Research, 0, 1166, 33-40.	0.3	0
49	Two-Directional Stress-Free Comb Sample for Weld Study by Neutron Diffraction. Journal of Surface Investigation, 2020, 14, S82-S84.	0.1	0