Pavel Strunz

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Structural, Volumetric, and Thermodynamic Characterization of a Micellar Sphere-to-Rod Transition. Journal of the American Chemical Society, 2004, 126, 16544-16552.	13.7	68
2	SANS-II at SINQ: installation of the former RisÃ,-SANS facility. Physica B: Condensed Matter, 2004, 350, E783-E786.	2.7	61
3	Lattice misfit measurement in Inconel 706 containing coherent γ′ and γ″ precipitates. Scripta Materialia, 2003, 48, 333-339.	5.2	58
4	Conformation of poly(L-lysine)-graft-poly(ethylene glycol) molecular brushes in aqueous solution studied by small-angle neutron scattering. European Physical Journal E, 2007, 23, 237-245.	1.6	57
5	Characterization of innovative rotary swaged Cu-Al clad composite wire conductors. Materials and Design, 2018, 160, 828-835.	7.0	56
6	General formula for determination of cross-section from measured SANS intensities. Journal of Applied Crystallography, 2000, 33, 829-833.	4.5	54
7	Double-Bent-Crystal Small-Angle Neutron Scattering Setting and its Applications. Journal of Applied Crystallography, 1997, 30, 844-848.	4.5	45
8	Structural Transition of Oil-Swollen Cylindrical Micelles of C12E5in Water Studied by SANS. Journal of Physical Chemistry B, 2003, 107, 1316-1320.	2.6	41
9	Texture and residual stress within rotary swaged Cu/Al clad composites. Materials Letters, 2018, 230, 88-91.	2.6	40
10	Investigation of microstructural changes in INCONEL 706 at high temperatures by In-Situ small-angle neutron scattering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2781-2792.	2.2	31
11	Phase Behavior, Structure, and Physical Properties of the Quaternary System Tetradecyldimethylamine Oxide, HCl, 1-Hexanol, and Water. Journal of Colloid and Interface Science, 2000, 221, 200-209.	9.4	29
12	Structural study of poly (N-isopropylacrylamide) microgels interpenetrated with polypyrrole. Physical Chemistry Chemical Physics, 2004, 6, 1396-1400.	2.8	29
13	Microstructural characterization of a modified 706-type Ni-Fe superalloy by small-angle neutron scattering and electron microscopy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 3439-3450.	2.2	27
14	Evaluation of anisotropic small-angle neutron scattering data; a faster approach. Journal of Applied Crystallography, 2003, 36, 854-859.	4.5	26
15	Degradation of creep properties in a long-term thermally exposed nickel base superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 728-733.	5.6	26
16	Investigation of phase transformations by in-situ neutron diffraction in a Co–Re-based high temperature alloy. Materials Letters, 2010, 64, 2608-2611.	2.6	25
17	Structural transition in aqueous lipid/bile salt [DPPC/NaDC] supramolecular aggregates: SANS and DLS study. Chemical Physics, 2013, 424, 93-99.	1.9	25
18	Investigations of early stage precipitation in a tungsten-rich nickel-base superalloy using SAXS and SANS. Journal of Alloys and Compounds, 2014, 612, 90-97.	5.5	24

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19	In situ SANS study of pore microstructure in YSZ thermal barrier coatings. Acta Materialia, 2004, 52, 3305-3312.	7.9	23
20	Nanocrystalline Ni3Al-type intermetallic phase powder from Ni-base superalloys. Nanotechnology, 2004, 15, 648-657.	2.6	22
21	Neutron and X-ray diffraction measurements on micro- and nano-sized precipitates embedded in a Ni-based superalloy and after their extraction from the alloy. Acta Materialia, 2006, 54, 1307-1316.	7.9	22
22	The influence of C/Ta ratio on TaC precipitates in Co-Re base alloys investigated by small-angle neutron scattering. Acta Materialia, 2017, 132, 354-366.	7.9	22
23	Beyond Ni-based superalloys: Development of CoRe-based alloys for gas turbine applications at very high temperatures. International Journal of Materials Research, 2011, 102, 1125-1132.	0.3	21
24	Austenite content and dislocation density in electron-beam welds of a stainless maraging steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 208, 131-138.	5.6	20
25	The Hexagonal Close-Packed (HCP)Â⇆ÂFace-Centered Cubic (FCC) Transition in Co-Re-Based Experimental Alloys Investigated by Neutron Scattering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1834-1844.	2.2	20
26	SANS study of magnetic phase transitions in CaMn7O12. Physica B: Condensed Matter, 2000, 276-278, 547-548.	2.7	18
27	High temperature stability of Cr-carbides in an experimental Co–Re-based alloy. International Journal of Materials Research, 2010, 101, 340-348.	0.3	18
28	Silver Behenate as a Standard for Instrumental Resolution and Wavelength Calibration for Small Angel Neutron Scattering. Materials Science Forum, 2000, 321-324, 264-269.	0.3	17
29	Application of In Situ Neutron and X-Ray Measurements at High Temperatures in the Development of Co-Re-Based Alloys for Gas Turbines. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 22-30.	2.2	17
30	Double bent crystal diffractometer for SANS experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1994, 338, 111-115.	1.6	16
31	Measurement of γ′ precipitate morphology by small angle neutron scattering. Scripta Materialia, 1999, 41, 31-38.	5.2	15
32	Stability of TaC precipitates in a Co–Re-based alloy being developed for ultra-high-temperature applications. Journal of Applied Crystallography, 2016, 49, 1253-1265.	4.5	15
33	Microstructural changes in long-time thermally exposed Ni-base superalloy studied by SANS. Applied Physics A: Materials Science and Processing, 2002, 74, s1155-s1157.	2.3	14
34	Microemulsion Droplets Decorated by Brij700 Block Copolymer:  Phase Behavior and Structural Investigation by SAXS and SANS. Langmuir, 2007, 23, 6544-6553.	3.5	14
35	Characterization of core-shell nanoparticles by small angle neutron scattering. Applied Physics A: Materials Science and Processing, 2007, 88, 277-284.	2.3	14
36	Effects of size reduction on the structure and magnetic properties of core–shell Ni3Si/silica nanoparticles prepared by electrochemical synthesis. Journal of Alloys and Compounds, 2014, 584, 119-127.	5.5	14

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37	Correlating Microstrain and Activated Slip Systems with Mechanical Properties within Rotary Swaged WNiCo Pseudoalloy. Materials, 2020, 13, 208.	2.9	14
38	Neutron-, X-ray- and electron-diffraction measurements for the determination of ?/? ? lattice misfit in Ni-base superalloys. Applied Physics A: Materials Science and Processing, 2002, 74, s1446-s1448.	2.3	13
39	In situ small-angle neutron scattering study of La2Zr2O7 and SrZrO3 ceramics for thermal barrier coatings. Scripta Materialia, 2006, 55, 545-548.	5.2	13
40	Neutron and synchrotron probes in the development of Co–Re-based alloys for next generation gas turbines with an emphasis on the influence of boron additives. Journal of Applied Crystallography, 2014, 47, 1417-1430.	4.5	13
41	Data evaluation procedure for high-resolution neutron diffraction methods. Journal of Neutron Research, 2001, 9, 99-106.	1.1	12
42	Structure of unilamellar vesicles: Numerical analysis based on small-angle neutron scattering data. Crystallography Reports, 2006, 51, S22-S26.	0.6	12
43	Microstructural characterisation of a Ni–Fe-based superalloy by <i>in situ</i> small-angle neutron scattering measurements. Journal of Physics Condensed Matter, 2008, 20, 104220.	1.8	12
44	Precipitate microstructure evolution in exposed IN738LC superalloy. Journal of Alloys and Compounds, 2014, 589, 462-471.	5.5	12
45	Texture and Differential Stress Development in W/Ni-Co Composite after Rotary Swaging. Materials, 2020, 13, 2869.	2.9	12
46	Evaluation procedure for anisotropic SANS. Journal of Applied Crystallography, 2000, 33, 834-838.	4.5	11
47	Determination of γ′ solution temperature in Re-rich Ni-base superalloy by small-angle neutron scattering. Journal of Applied Crystallography, 2001, 34, 541-548.	4.5	11
48	Characterization of Cavities in Superplastically Deformed Tetragonal Zirconia Polycrystals by Means of Small Angle Neutron Scattering. Materials Transactions, 2002, 43, 2480-2486.	1.2	11
49	Structural and dynamical characterization of melt PEO–salt mixtures. Physica A: Statistical Mechanics and Its Applications, 2002, 304, 308-313.	2.6	11
50	Bragg optics for strain/stress measurement techniques. Physica B: Condensed Matter, 1995, 213-214, 845-847.	2.7	10
51	Investigation of γ′ precipitates in nickel-base single-crystal superalloy (SC 16) by SANS. Physica B: Condensed Matter, 1997, 234-236, 1008-1010.	2.7	10
52	Fully Numerical Procedure for Anisotropic Small-Angle Neutron Scattering Modelling and Data Evaluation. Journal of Applied Crystallography, 1997, 30, 1132-1139.	4.5	10
53	Effect of composition on the matrix transformation of the Co-Re-Cr-Ta-C alloys. Metals and Materials International, 2016, 22, 562-571.	3.4	10
54	Misfit in Inconel-Type Superalloy. Advances in Materials Science and Engineering, 2013, 2013, 1-7.	1.8	9

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55	Determination of Directional Residual Stresses by the Contour Method. Metals, 2019, 9, 1104.	2.3	9
56	Sans from low volume fraction of plate-like precipitates present in two single-crystal Ni-base superalloys. Scripta Materialia, 1998, 39, 715-721.	5.2	8
57	Non-destructive SANS study of creep-tested single-crystal Ni-base superalloy CMSX3. Physica B: Condensed Matter, 2000, 276-278, 890-891.	2.7	8
58	BEER - The Beamline for European Materials Engineering Research at the ESS. Journal of Physics: Conference Series, 2016, 746, 012009.	0.4	8
59	Neutron Diffraction Study of Residual Stresses in a W–Ni–Co Heavy Alloy Processed by Rotary Swaging at Room and High Temperatures. Metals and Materials International, 2022, 28, 919-930.	3.4	8
60	Neutron diffractometer using Bragg diffraction optics for high-resolution strain/stress measurements. , 1997, 2867, 156.		7
61	Microstrain characterization of metals using high-resolution neutron diffraction. Physica B: Condensed Matter, 1997, 234-236, 956-958.	2.7	7
62	Microstructural investigations on Russian reactor pressure vessel steels by small-angle neutron scattering. Applied Physics A: Materials Science and Processing, 2002, 74, s1128-s1130.	2.3	7
63	Characterization of nanoporous superalloy by SANS. Physica B: Condensed Matter, 2006, 385-386, 626-629.	2.7	7
64	Single-Line Diffraction Profile Analysis Method Used for Evaluation of Microstructural Parameters in the Plain Ferritic Steel upon Tensile Straining. Materials Science Forum, 0, 571-572, 181-188.	0.3	7
65	<i>In Situ</i> Investigation with Neutrons on the Evolution of γ ' Precipitates at High Temperatures in a Single Crystal Ni-Base Superalloy. Advanced Materials Research, 0, 278, 42-47.	0.3	7
66	Beyond Ni-base superalloys: Influence of Cr addition on Co-Re base alloys strengthened by nano-sized TaC precipitates. Physica B: Condensed Matter, 2018, 551, 1-5.	2.7	7
67	Matrix Transformation in Boron Containing High-Temperature Co–Re–Cr Alloys. Metals and Materials International, 2018, 24, 934-944.	3.4	7
68	High resolution neutron diffraction techniques for strain/stress measurements at a steady state reactor. Acta Physica Hungarica, 1994, 75, 305-310.	0.1	6
69	Small-Angle Neutron Scattering Investigation of Precipitation in Single-Crystal Nickel-Based Superalloy ZS26. Journal of Applied Crystallography, 1997, 30, 597-601.	4.5	6
70	Structural investigation of hybrid nanocomposites. Applied Physics A: Materials Science and Processing, 2002, 74, s1430-s1432.	2.3	6
71	Flat Cavities formed in TZP caused by Superplastic Deformations at High Strain-Rates and Their Effect on Elongation. Materials Transactions, 2004, 45, 824-832.	1.2	6
72	Small-angle neutron scattering investigation of γ [′] precipitate morphology evolution in creep-exposed single-crystal Ni-base superalloy CMSX-4. Journal of Physics Condensed Matter, 2008, 20, 104261.	1.8	6

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73	Formation and Dissolution of γ' Precipitates in IN792 Superalloy at Elevated Temperatures. Metals, 2016, 6, 37.	2.3	6
74	Additional Phases at High Boron Content in High-Temperature Co–Re–Cr Alloys. Metals, 2018, 8, 621.	2.3	6
75	Characterization of Single Crystal Superalloy SC16 by Small Angle Neutron Scattering and Complementary Analytical Techniques. Scripta Materialia, 1998, 38, 803-809.	5.2	5
76	Phase behaviour and physical properties of the cationic quaternary system tetradecyldimethylamine oxide hydrochloric acid 1-hexanol water. Colloid and Polymer Science, 2000, 278, 137-142.	2.1	5
77	In situ neutron diffraction study of drawn pearlitic steel wires upon tensile deformation. Journal of Neutron Research, 2001, 9, 415-421.	1.1	5
78	SANS examination of precipitate microstructure in the creep-exposed single-crystal Ni-base superalloy SC16. Applied Physics A: Materials Science and Processing, 2002, 74, s1083-s1085.	2.3	5
79	In situobservation of morphological changes of γ′ precipitates in a pre-deformed single-crystal Ni-base superalloy. Journal of Applied Crystallography, 2011, 44, 935-944.	4.5	5
80	Effects of Silicon, Chromium, and Copper on Kinetic Parameters of Precipitation during Tempering of Medium Carbon Steels. Materials, 2021, 14, 1445.	2.9	5
81	New SANS diffractometer and neutron interferometric device at NPI Å~eų4. Physica B: Condensed Matter, 1992, 180-181, 984-986.	2.7	4
82	Residual strain/stress analysis by means of energy-dispersive neutron transmission diffraction (EDNTD). , 1997, , .		4
83	In situ neutron diffraction study of metals under external mechanical loading. Physica B: Condensed Matter, 2000, 276-278, 845-846.	2.7	4
84	In Situ High-Resolution Neutron Diffraction Study of Stress Induced Martensitic Transformations in CuAlZnMn Shape Memory Alloy. Materials Science Forum, 2000, 347-349, 334-339.	0.3	4
85	In situ SANS investigation of precipitate microstructure at elevated temperatures in Re-rich Ni-base superalloy. Applied Physics A: Materials Science and Processing, 2002, 74, s1074-s1076.	2.3	4
86	Precipitate scanning in Ni-base γ/γ′-superalloys. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 255-260.	1.4	4
87	Misfit Investigations of Nickel-Base Superalloys. Materials Science Forum, 2003, 426-432, 821-828.	0.3	4
88	Cavitation Behaviors in a Tetragonal Zirconia Polycrystal Subjected to Superplastic Deformations Measured by SANS Method. Materials Science Forum, 2004, 447-448, 67-72.	0.3	4
89	SANS investigations of pore anisotropy in superplastically deformed ceramics. Physica B: Condensed Matter, 2004, 350, E1019-E1022.	2.7	4
90	Evolution of internal stresses in the plain ferritic steel studied by neutron diffraction <i>in situ</i> upon tensile straining. Journal of Physics Condensed Matter, 2009, 21, 095407.	1.8	4

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91	Stability of phases at high temperatures in CoRe based alloys being developed for ultra-high temperature applications. Journal of Physics: Conference Series, 2012, 340, 012052.	0.4	4
92	Upgrade of detectors of neutron instruments at Neutron Physics Laboratory in Å~ež. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 841, 5-11.	1.6	4
93	Coexistence of Two Cubic-Lattice Co Matrices at High Temperatures in Co-Re-Cr-Ni Alloy Studied by Neutron Diffraction. Advances in Materials Science and Engineering, 2018, 2018, 1-6.	1.8	4
94	High-Resolution Strain/Stress Measurements by Three-Axis Neutron Diffractometer. Materials, 2020, 13, 5449.	2.9	4
95	TaC Precipitation Kinetics During Cooling of Coâ^'Reâ€Based Alloys. Advanced Engineering Materials, 2021, 23, 2100129.	3.5	4
96	Small angle scattering study concerning the effect of residual elements on the radiation behaviour of iron alloys. Physica B: Condensed Matter, 2000, 276-278, 936-938.	2.7	3
97	Investigating self-assembly and metal nanoclusters in aqueous di-block copolymers solutions. Applied Physics A: Materials Science and Processing, 2002, 74, s540-s542.	2.3	3
98	Creep Deformation and Microstructural Examination of a Prior Thermally Exposed Nickel Base Superalloy. Key Engineering Materials, 2004, 274-276, 925-930.	0.4	3
99	Evaluation of anisotropic small-angle neutron scattering data from metastable β-Ti alloy. Philosophical Magazine, 2018, 98, 3086-3108.	1.6	3
100	Structural characterization of semi-heusler/light metal composites prepared by spark plasma sintering. Scientific Reports, 2018, 8, 11133.	3.3	3
101	Effect of Cr and Ni on the microstructural evolution in Co–Re–Cr–Ni alloys. International Journal of Materials Research, 2019, 110, 1092-1104.	0.3	3
102	Focusing double bent crystal diffractometer in combination with PSD for SANS experiments. European Physical Journal Special Topics, 1993, 03, C8-439-C8-442.	0.2	3
103	In Situ Neutron Diffraction Characterization of Phases in Co-Re-Based Alloys at High Temperatures. Acta Physica Polonica A, 2015, 128, 684-688.	0.5	3
104	Double-bent-crystal sans investigation of the creep exposed CMSX2 single crystal. Acta Physica Hungarica, 1994, 75, 279-284.	0.1	2
105	SANS investigation of plasma-sprayed materials using a double-crystal diffractometer. Physica B: Condensed Matter, 1997, 234-236, 1011-1013.	2.7	2
106	Small-angle neutron-scattering studies on oriented single-crystal superalloys. Physica B: Condensed Matter, 1997, 241-243, 347-349.	2.7	2
107	Investigation of radiation damage in VVER-440 reactor vessel steels by SANS. Physica B: Condensed Matter, 2004, 350, E755-E757.	2.7	2
108	Evolution of pore microstructure in thermal barrier coatings studied by SANS. Physica B: Condensed Matter, 2006, 385-386, 617-619.	2.7	2

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109	Dependence of small-angle neutron scattering contrast on the difference in thermal expansions of phases in two-phase alloys. Journal of Applied Crystallography, 2009, 42, 981-989.	4.5	2
110	Microstructure of creep-exposed single crystal nickel base superalloy CSMX4. Journal of Physics: Conference Series, 2010, 247, 012039.	0.4	2
111	Pore structure characterization and in-situ diffusion test in nanoporous membrane using SANS. Journal of Physics: Conference Series, 2010, 247, 012023.	0.4	2
112	SANS Investigation of γ´ Precipitate Morphology Evolution in Creep Exposed Single Crystal Ni Base Superalloy. Materials Science Forum, 0, 636-637, 1475-1482.	0.3	2
113	Investigation of metal-matrix composite containing liquid-phase dispersion. Journal of Physics: Conference Series, 2012, 340, 012098.	0.4	2
114	Current status of Co-Re-based alloys being developed to supplement Ni-based superalloys for ultra-high temperature applications in gas turbines. Metallic Materials, 2016, 53, 287-294.	0.3	2
115	Creep deformation of Co-Re-Ta-C alloys with varying C content–investigated in-situ by simultaneous synchrotron radiation diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 719, 124-131.	5.6	2
116	Rogante Engineering Office and Neutron Physics Laboratory of CANAM - 20 years of cooperation. Neutron News, 2018, 29, 16-17.	0.2	2
117	High-Temperature Stability of Phases in Boron Containing Co-Re Alloys for Gas Turbine Applications. Acta Physica Polonica A, 2018, 134, 829-837.	0.5	2
118	Characterization of the creep exposed CMSX2 single crystal by neutron diffraction topography and neutron diffractometry. European Physical Journal D, 1994, 44, 687-693.	0.4	1
119	Neutron Diffraction as a Tool for Microstrain Characterization of Polycrystalline Ni-Base Superalloy after Thermal Fatigue. Materials Science Forum, 2000, 321-324, 1046-1050.	0.3	1
120	Evaluation of substructure parameters by peak profile analysis of high-resolution neutron diffraction spectra. Powder Diffraction, 2009, 24, S26-S30.	0.2	1
121	Porosity determination in doped graphites using small-angle neutron scattering measurements. Journal of Physics: Conference Series, 2012, 340, 012102.	0.4	1
122	Neutron Diffraction Study of Ti–Zr Alloy Microstructure Evolution during Annealing after Severe Plastic Deformation. Journal of Surface Investigation, 2020, 14, S225-S230.	0.5	1
123	On possible exploitation of fully asymmetric diffraction geometry of bent perfect crystals for neutron monochromators in diffraction instruments. Journal of Neutron Research, 2020, 22, 17-29.	1.1	1
124	Anisometric mesoscale nuclear and magnetic texture in sintered Nd-Fe-B magnets. Physical Review Materials, 2020, 4, .	2.4	1
125	<title>Unconventional double bent-crystal diffractometer equipped by position-sensitive detector</title> . , 1992, 1738, 411.		0
126	Neutron-scattering experiments in materials science at Å~ež's reactor LVR-15. Physica B: Condensed Matter, 1997, 241-243, 92-94.	2.7	0

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127	Evaluation of High-Resolution SANS Measurements in Multiple Scattering Regime. Materials Science Forum, 2000, 321-324, 270-275.	0.3	0
128	Small-Angle Neutron Scattering: A Tool for Microstructural Investigation of High-Temperature Materials. Materials Science Forum, 2003, 426-432, 755-760.	0.3	0
129	In Situ Neutron Diffraction Study of Ni Addition in Co–Re–Cr High-Temperature Alloys and Influence on Phase Transformations. Journal of Surface Investigation, 2020, 14, S179-S184.	0.5	0
130	Structure and Microstructure of Advanced Materials Characterized by Neutron Diffraction. Materials Science Forum, 0, 1016, 1404-1410.	0.3	0
131	In situneutron diffraction measurement on Co-Re alloys at high temperature. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s152-s152.	0.3	0
132	Investigation of Vycor glass structure on the double-bent-crystal small-angle neutron scattering instrument. European Physical Journal Special Topics, 1993, 03, C7-1439-C7-1442.	0.2	0
133	Microstructure of Zirconia-Based Sol-Gel Glasses Studied by SANS. Acta Physica Polonica A, 2015, 128, 582-585.	0.5	0
134	Neutron scattering investigations of microstructure in Al-Zn-Mg-Cu alloy prepared by spark plasma sintering. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s414-s414.	0.1	0
135	Matrix transformation temperature in boron containing Co-Re alloys for high temperature gas turbine applications. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s151-s152.	0.1	0
136	Effect of boron addition on phase transformations in Co–Re–Ta–C alloys. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1261-C1261.	0.1	0
137	Properties of the dispersive double bent crystal monochromator setting with a multicrystal sandwich at the place of AtheAsecondAaxis, Journal of Neutron Research, 2022, 1-14.	1.1	0