

## Publications

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*Article*

**Study of phase objects by dynamical diffraction of a spherical X-ray wave in a crystal using a temperature gradient**

L. Levonyan, H. Manukyan

Journal of Instrumentation 2024 C02058

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*Article*

**X-Ray Diffraction by Superlattice with Overlapping Stacking Faults [Дифракция рентгеновских лучей на сверхрешетке с перекрывающимися дефектами упаковки]**

H. M. Manukyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
219 - 222

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*Article*

**Features of Spherical X-Ray Wave Diffraction by a Low Angle Twist Boundary Perpendicular to the Crystal Surface [Особенности дифракции сферической рентгеновской волны на малоугловой границе кручения, перпендикулярной поверхности кристалла]**

L. V. Levonyan, H. M. Manukyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
214-218

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*Article*

**X-Ray Phase Contrast in a Superlattice in the Presence of a Temperature Gradient [Рентгеновский фазовый контраст в сверхрешетке при наличии температурного градиента]**

L. V. Levonyan, H. M. Manukyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024  
337-341

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*Article*

**Determination of the superlattice structure factor by X-ray diffraction using a temperature gradient**

Levon Levonyan, Hasmik Manukyan

Acta Crystallographica A-Foundation and Advances 2023 14-19

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*Article*

**Study of Two-Dimensional Phase Objects by Diffraction Focusing of Cylindrical X-Ray Wave on a Superlattice With Variable Period**

L.V. Levonyan, H.M. Manukyan

Armenian Journal of Physics 2020 278-283

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*Article*

**Influence of Interdiffusion of Heteromaterials on the Diffraction Focusing of Spherical X-Ray Wave in a Superlattice**

L.V. Levonyan, H.M. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 203–209

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*Article*

**Рентгеновский фазовый контраст при дифракционной фокусировке сферической волны в сверхрешетке с малым периодом**

Л.В. Левонян, А.М. Манукян

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2018 120-124

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*Article*

**X-ray Phase Contrast at Diffraction Focusing of a Spherical Wave in a Short-Period Superlattice**

L.V.Levonyan, H.M.Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2018 92-94

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*Article*

**FEATURES OF DIFFRACTION FOCUSING OF A SPHERICAL X-RAY WAVE ON A SHORT PERIOD SUPERLATTICE**

L.V.Levonyan, H.M.Manukyan

Proceedings of the YSU A. Physical and Mathematical Sciences 2017 113-116

<http://www.ysu.am/science/en/journals>

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*Article*

**ДИНАМИЧЕСКАЯ ДИФРАКЦИЯ СФЕРИЧЕСКОЙ РЕНТГЕНОВСКОЙ ВОЛНЫ НА СВЕРХРЕШЕТКЕ**

Л.В.ЛЕВОНЯН, А.М.МАНУКЯН

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2016 95-101

<http://www.flib.sci.am/eng/Fizika/Frame.html>

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*Article*

**TRANSMISSION OF NARROW SOUND BEAMS IN NONLINEAR ENVIRONMENT**

S.M.MANUKYAN, A.A.BUTAVYAN, H.M.MANUKYAN

Proceedings of the YSU A. Physical and Mathematical Sciences 2016 45-51

<http://www.ysu.am/science/en/journals>

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*Article*

**Dynamical Diffraction of Spherical X-ray Wave on a Superlattice**

L. V. Levonyan, H. M. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2016 73-78

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

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*Article*

**Integrated Intensity of X-ray Reflection from a Superlattice with a Stacking Fault**

H.M.Manukyan, S.M.Manukyan

Proceedings of the International Conference on Electron, Positron, Neutron and X Ray Scattering under External Influences

2016 224-229

<https://istina.msu.ru/collections/24207893/>

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*Article*

**Study of Superlattices by Diffraction Focusing of X-ray Radiation**

L.V.Levonyan, H.M.Manukyan

Proceedings of the International Conference on Electron, Positron, Neutron and X Ray Scattering under External Influences  
2016 101-106

<https://istina.msu.ru/collections/24207893/>

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*Article*

**Influence of absorption on the X-ray diffraction by the trapeziform model of superlattice with a stacking fault**

H.M.Manukyan, S.M.Manukyan

Journal of Physics: Conference Series 2016 1-6

<http://iopscience.iop.org/journal/1742-6596>

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*Article*

**ABSORPTION AT X-RAY DIFFRACTION BY THE ONE-DIMENSIONAL SUPERLATTICE WITH A STACKING FAULT**

H. M. MANUKYAN, S. M. MANUKYAN

Proceedings of the YSU A. Physical and Mathematical Sciences 2015 55-58

<http://www.yasu.am/science/en/journals>

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*Article*

**ВЛИЯНИЕ ВЗАИМНОЙ ДИФФУЗИИ ГЕТЕРОМАТЕРИАЛОВ НА ДИФРАКЦИЮ РЕНТГЕНОВСКИХ ЛУЧЕЙ НА СВЕРХРЕШЕТКЕ С ДЕФЕКТОМ УПАКОВКИ**

А.М.МАНУКЯН

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2014  
360-365

<http://www.flib.sci.am/eng/Fizika/Frame.html>

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*Conference*

**INFLUENCE OF ABSORPTION ON THE X-RAY DIFFRACTION BY THE TRAPEZIFORM MODEL OF SUPERLATTICE WITH A STACKING FAULT**

Hasmik Manukyan, Susanna Manukyan

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*Conference*

**Study of superlattices by diffraction focusing of x-ray radiation**

L.V.Levonyan, H.M.Manukyan

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*Conference*

**Integrated intensity of x-ray reflection from a superlattice with a stacking fault**

H.M.Manukyan, S.M.Manukyan

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*Conference*

**Influence of Interdiffusion of Heteromaterials on the X-Ray Spherical Wave Diffraction by Superlattice**

L.V. Levonyan, H.M.Manukyan

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*Conference*

**Formation of the X-ray phase contrast under the diffraction focusing of the spherical wave on the short period superlattice**

L.V. Levonyan, H.M. Manukyan

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*Conference*

**Формирование рентгеновского фазового контраста при дифракционной фокусировке сферической волны в сверхрешетке с малым периодом**

Л.В. Левонян, А.М. Манукян

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*Conference*

**Peculiarity of X-ray Phase Contrast at Diffraction Focusing of a Spherical Wave in a Superlattice**

L.V. Levonyan, H.M. Manukyan

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*Conference*

**Study of two-dimensional phase objects by diffraction focusing of cylindrical X-ray wave on a superlattice with variable period**

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