#### **Research Institute of Physics**

Laboratory of Solid State Physics Senior researcher

#### Publications

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

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

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

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

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

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

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

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

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

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

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

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

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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

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

#### 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

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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

#### 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.ysu.am/science/en/journals

#### 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

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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

#### Conference

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

L.V.Levonyan, H.M.Manukyan

#### Conference

### Integrated intensity of x-ray reflection from a superlattice with a stacking fault H.M.Manukyan, S.M.Manukyan

#### Conference

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

L.V. Levonyan, H.M.Manukyan

#### 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

Conference

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

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

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

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Study of Phase Objects by Dynamical Diffraction of a Spherical X-ray Wave in a Crystal using a Temperature Gradient

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X-ray Diffraction Image of a Low-Angle Twist Boundary

L.V. Levonyan, H.M. Manukyan

Conference

Two-dimensional Focusing of an X-ray Beam

L.V. Levonyan, H.M.Manukyan