shot influence two beam laser radiations with metal. The edges of the main small hole of destruction several tower over target surface that is caused by throw out of the metal from small hole and its precipitate on its edge. Those fields, which are located interference picture, on level differ from density, not destruction part of target. On direction of the fall second laser beam are formed deepened interference picture. With increase amount "shot" two channel lasers on the one and ditto place targets interference pictures are got clearer. At exception one of the laser beams (in one beam mode) or merging two laser beams in one on the W surface are not formed interference pictures. Also decrease of angle of incidence second laser beam from б = 850 to б = 00 greatly decrease the possibility of formation interference pictures on W surface. It is found that, when turning from one beam to two beam mode of working laser is broken regularity of the sharing the mass-charge and energy spectra multiply charged laser plasma ions.

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The frenkel core exciton stimulated desorption of oxygen positive ion from MgO crystal surface under electron bombardment

B.G. Atabaev, F.R. Yuzikaeva, N.G. Saidkhanova,
Arifov Institute of Electronics, Tashkent, Uzbekistan
I.G. Atabaev, V.A. Pak
Physical-Technical Institute , Tashkent, Uzbekistan

Using monopole mass-spectrometer electron stimulated desorption ESD of oxygen positive ion from MgO crystal surface are investi-gated. It is shown that oxygen positive ion desorbed from high temperature annealed MgO crystal surface under low keV energy elect-ron bombardment with current density microA/cm2. The positive Mg ions are not detected. It is known that Mg neutrals are desorbed after decay of bi-exciton.

The ESD of oxygen positive ion from MgO can not be explained by Knotek-Feibelman auger interatomic transition model. We propose new model of Frenkel multicharged core exciton stimulated desorption of oxygen positive ion from MgO crystal surface. The initially oxygen di-anion on surface losses at least three electrons after intra atomic Auger relaxation of core Frenkel exciton . The for-mation of multiple charged Frenkel exciton leads to formation at least of double char-ged oxygen ions with life time , which enough for desorption of oxygen positive ion after Coulomb repulsion from positive neighbor Mg ions on surface.

Low Frequency Impedance of the Metal-Water and Semiconductor-Water Interfaces

Atabaev I.G., Pak V.
Physical-technical institute, Tashkent, Uzbekistan

Numerous researches devoted to dissociation of water molecule on the surface of solid state have been performed for water vapor - solid state interface. Current experimental techniques such as X-ray scattering, LEED and neutron diffraction have helped to identify many characteristics of dissociation on solid-water interface region.

In the case of "condensed phase" - liquid water (bulk water) – solid state interface the characteristics of dissociation is essentially changes. For obtaining the characteristics of dissociation of water in "condensed phase" the data on on behavior of double layer capacitance of the wetted surface.

In this work the experimental impedance curves for water on the metals (Ni, Al, Au, Ti) and semiconductors (Si, Ge, SiC) are presented. To interpretation of the impedance measurements the suitable equivalent circuits are proposed taking into account the presence of thin oxide films on the border. It is shown that the impedance spectroscopy technique (IS) may be used in order to study the dissociation process of water molecules on the solid state surface.

X-ray Scattering by 2H-NbSe2 in CDW-Regime

V. Eremenko and V. Sirenko
Institute for Low TemperaturePhysics and Engineering, Kharkov, Ukraine

Here we present X-ray scattering measurements in commercial diffractometer with the original continuous-flow cryostat were performed in the temperature range 10-300 K at CuK alpha in the 1eV energy window which reveal new system of peaks on diffraction patterns below transition to the charge density wave state (TCDW = 32.5 K). They are characterized by complicated hierarchy, time and temperature dependence. The most fascinating feature is anomalously high intensity with drastic disappearance during heating immediately at TCDW. Comparison with a high-resolution neutron diffraction measurements is discussed.

Ni Germanosilicide Fabricated on Basis of Bulk $Si_{1-x}Ge_x$ Alloy

Atabaev I.G., Matchanov N.A., Saidov D.
(Physical-technical institute),
Bobojanov K.A.
(Urgench State University)

The germanosilicides of Ni have begun to involve attention of the scientists due to the low cost price. They are not require high-temperature processing and compatible to silicon planar technology. In this work we present the fabrication and characterization of Ni germanosilicide films formed using low temperature annealing. To fabrication of NiGeSi films the $Si_{1-x}Ge_x$ bulk single crystals (with specific resistance 160-180 Ohm cm, orientation <111> and $0<x<0,2$) grown by electron beam floating zone technique was used. The Ni about of ~ 0.2 mkm thick was deposited on the surface of p- $Si_{1-x}Ge_x$ samples by thermal evaporation in vacuum 10^{-5}-10^{-7} Torr. The NiGeSi films were fabricated by thermal annealing at temperatures 250, 300,400,500,600 and 650OC during 15 hours, in vacuum 10^{-5}-10^{-7} Torr. It is shown that the specific resistance of obtained films depends from temperature of annealing and decreases from 160 Ohm cm to $4,9*10^{-3}$ Ohm cm. The influence of anneal temperature on IV characteristics of NiGeSi/SiGe structures are also investigated.