

POSTER SESSION III

20 September 2006 (Wednesday) 14.30-16.30

a. ION-SOLID INTERACTIONS

- P - 1 **Anomalous behavior of hydrogen ions during beryllium implantation.**
Vladimir A. Starostin
- P - 12 **Supporting routines to the SRIM-code**
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- P - 18 **Computer simulation of ion implantation and layer-by-layer sputtering at grazing ion-surface interactions**
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- P - 43 **Interface mixing of Fe/Si bilayers by noble-gas ions: effects of the ion charge state ?**
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- P - 64 **Concerning generation radiation at structures with distributed potential**
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- P - 93 **Temperature Dependent Energy Loss of Alpha Particles in Ferromagnetic Nickel**
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- P - 107 **Effect of high electronic excitation in swift heavy ion irradiated semiconductors**
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- P - 115 **A comparison of secondary electron spectra from proton impact on water in the vapor, liquid and solid phases with emphasis on very low energy secondaries**
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- P - 118 **Investigations of nano size defects in InP induced by swift iron ions**
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- P - 170 **Femtosecond laser and swift-ion damage in dielectrics -similarities and differences: is a unified description possible?**
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- P - 176 **Radiation-induced luminescence from TiO₂ by 10 keV N⁺ irradiations**
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- P - 179 **EXAFS study of the amorphous phase in InP after Swift Heavy Ion irradiation**
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- P - 193 **The non-linear cascade cluster sputtering of Si, SiC and LiF under subkeV atomic cesium and polyatomic SF₅⁺ ions bombardment**
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- P - 195 **Molecular dynamics simulation of deuterium bombardment of tungsten carbide surfaces and cascades in bulk tungsten carbide**
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- P - 222 **Modification of magnetic properties of polyethyleneterephthalate by implantation of iron ions**
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- P - 243 **Monte Carlo simulation study of a selforganization process leading to ordered precipitate structures**
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- P - 252 **Raman spectroscopy investigation of damage induced by swift heavy ions in fluorapatite**
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- P - 310 **Peculiarities of ion sputtering and implantation processes at grazing incidence**
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- P - 327 **Interaction potentials for ion channeling through carbon nanotubes**
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- P - 391 **Nano-scale surface modification of materials with slow, highly charged ion beams**
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- P - 392 **Surface Modification of InGaAs/GaAs Heterostructures by Swift Heavy Ion Irradiation**
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- P - 416 **Modifications of AlN thin films by ions**
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- P - 431 **Etch-pit morphology of tracks induced by heavy ions in natural mica**
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- P - 456 **Fermi edge singularities in ion-induced electron emission from metals**
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- P - 467 **Bubble formation, enhanced erosion, and retention of hydrogen in plasma facing materials**
Zeke Insepov, Ahmed Hassanein
- P - 470 **Range parameters of medium-heavy ions in light targets calculated with first-principles potentials**
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- P - 484 **Computer simulation of the low-energy ion interaction with the surface of a solid**
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- P - 490 **Kinetic electron emission in the interaction of slow ions with Al surfaces**
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- P - 528 **Study of charge distribution of Cⁿ⁺ and N^{q+} ions simultaneously produced by a tandem accelerator**
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- P - 538 **Applications of the inelastic thermal spike model to metallic multilayer systems**
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- P - 547 **Preparation of interfaces for TEM cross section observation**
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- P - 61 **Characteristics of diamond-like carbon film synthesized on AISI 304 austenite stainless steel using plasma immersion ion implantation and deposition**
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- P - 124 **STEM observation of nano-interface between substrate and DLC film prepared by plasma-based ion implantation and deposition**
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- P - 127 **Effect of a thick hard interlayer on durability of DLC film prepared with PBIID process**
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- P - 162 **Enhancement of Surface Properties of SAE 1020 by Chromium Plasma Immersion Recoil Implantation**
Mario Ueda, Carina B. Mello, Antonio F. Beloto, Jose O. Rossi, Helfried Reuther, Mauricio Lepienski, Nilson C. Cruz
- P - 164 **Surface improvement of Al7475 aluminum alloy treated by nitrogen plasma immersion ion implantation**
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- P - 188 **Interplay of cold working and nitrogen diffusion in austenitic stainless steel**
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- P - 189 **Sputter yield, ion range and damage distribution during plasma immersion ion implantation as determined by spectroscopic ellipsometry**
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- P - 190 **Determination of diffusing species from marker experiments in the system Ni-Ti-O**
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- P - 202 **Friction properties of protective DLC films on Magnesium alloy in aqueous NaCl solution**
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- P - 204 **Surface modification of Ti6Al4V alloy by PIII at high temperatures: effects of plasma potential**
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- P - 206 **Correlation between physical surface properties and blood compatibility of titanium-based coatings prepared by metal plasma immersion ion implantation and deposition**
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- P - 212 **Effect of cathodic hydrogenation on the mechanical properties of AISI 304 stainless steel nitrided by ion implantation, glow discharge and plasma immersion ion implantation.**
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- P - 216 **Sliding behavior of 304 austenitic stainless steel submitted to nitrogen ion implantation and plasma immersion ion implantation**
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- P - 218 **Mechanical and tribological properties of AISI 304 stainless steel nitrided by glow discharge compared to ion implantation and plasma immersion ion implantation**
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- P - 228 **Effect of pulse-voltage on ultra-thin a-C:F films structure prepared by RF magnetron sputtering**
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- P - 272 **Ion Permeability of Amorphous Hydrogen- and Fluorine-Containing Carbon Films formed by Plasma Immersion Ion Implantation**
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- P - 277 **DLC coatings on Inner wall of PET bottle by a simplified PBII technique**
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- P - 283 **Formation of thin carbide films of titanium and tantalum by methane plasma-based ion implantation**
K. Baba, R. Hatada, S. Flege, Wolfgang Ensinger
- P - 284 **Lateral inhomogeneities of copper surfaces treated by methane plasma immersion ion implantation**
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- P - 289 **Nanostructural Evolution of Au on Silica Surfaces Exposed to Low Energy Ion Irradiation in Glow Discharge Plasma***
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- P - 302 **Nanostructural Evolution of Steel and Titanium Alloys Exposed to Glow Discharge***
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- P - 307 **Mo-containing tetrahedral amorphous carbon using dual filtered cathodic vacuum arcs plasma deposition with species-selective bias**
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- P - 325 **Surface modification of coated ETFE films by glow discharge**
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- P - 349 **Adhesion improvement of TiN film on tool steel by a hybrid process of unbalanced magnetron sputtering and plasma-based ion implantation**
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- P - 369 **The bioactivity of water, COOH⁺ ion implantation into titanium oxide films**
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- P - 394 **Nanocavities induced by Neon Plasma Based Ion Implantation in Silicon**
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- P - 399 **Surface modification of medical use silicones by PBII**
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- P - 425 **Bubble and blister formation in p-type silicon by combining conventional implantation and plasma immersion**
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- P - 495 **Effect of deposition parameter on hardness of amorphous carbon film prepared by plasma immersion ion implantation using C₂H₂**
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- P - 546 **Irradiation induced densification in porous cluster-assembled thin films**
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c. NOVEL APPLICATIONS OF ION BEAM PROCESSING

- P - 9 **Phase formation in nitrogen ion implanted Ti-Al-V alloy and modification of corrosion property**
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- P - 10 **Surface microstructure and corrosion behavior of Ti-Al-V alloy implanted with Al and Nb**
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- P - 15 **A specialized bioengineering ion beam line**
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- P - 16 **Characteristics of end Hall ion source with magnetron hollow cathode discharge**
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- P - 17 **Broad beam gas ion source with hollow cathode discharge and four-grid accelerator system**
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- P - 21 **In vitro evaluation of diamond-like carbon coatings with a Si/Si_x interlayer on surgical NiTi alloy**
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- P - 55 **DC Magnetron Sputtered Fe Films for Growth of C Nanotubes**
Guoyi Tang, Yunyu Wang, J.M. Rigsbee
- P - 67 **Magnetic properties of cobalt nanoparticles obtained by ion implantation into amorphous silica**
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- P - 76 **Effects of plasma treatment on microstructure and electron field emission properties of screen-printed carbon nanotube films**
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- P - 90 **Wet and vapor etching of tracks produced in SiO₂ by Ti ion irradiation**
Fabio Bergamini, Marco Bianconi, Stefano Cristiani
- P - 98 **Formation and Structural Characterization of Bi-metallic Nanocrystals formed by Sequential Ion Implantation**
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- P - 99 **Lamp annealing effects on the formation process of implanted silicon nanocrystals in SiO₂**
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- P - 106 **In-situ Atomic Force Microscopy for microcrater-like structure observation of plant cells**
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- P - 109 **Ion beam synthesis of Mn/As nanoclusters in Si**
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- P - 123 **Quantum Wells Quantum Dots formation by Ion Beam: Application in highly Efficient Thermoelectric Generators**
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- P - 178 **Fabrication of Ni-In alloy nanotubes**
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- P - 182 **Scaling studies of nanoscale patterns on InP(111) surfaces after MeV implantation**
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- P - 205 Pulsed annealing of Er ion implanted Si layers**
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- P - 224 Reduction in dielectric constant of thermal SiO₂ by heavy noble gas implantation-induced cavities**
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- P - 261 Negative-ion beam modification of polystyrene surface for preferential nerve-cell attachment and neurite extension**
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- P - 262 Nanoparticle formation in 25-nm SiO₂ thin layer by germanium negative ion implantation and their capacitance – voltage characteristics**
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- P - 322 Templating and ion beam processing of dielectric sphere arrays for photonic applications**
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- P - 342 Edge sharpening of micro punching tool by ion beam**
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- P - 353 Implantation in pseudomorphic SiGe/Si multilayers: effect of strain on defect evolution**
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- P - 359 The cellular structure on compound semiconductor InSb formed by ion implantation**
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- P - 362 Metal and metal oxide nanoparticles produced by ion implantation in silica: a microstructural study using HRTEM**
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- P - 363 The microstructure and properties of titanium oxide films synthesized by unbalanced magnetron sputtering**
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- P - 366 Study of the optical properties of Ag nanoparticles embedded in silica after a MeV Si ion irradiation**
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- P - 368 The biomedical properties of polyethylene terephthalate surface modified by silver ion implantation**
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- P - 371 Characteristics of TiO_x thin films doped by phosphorus: wettability, semiconductor performance and biocompatibility**
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- P - 376 Germanium nanoparticle formation in silicon dioxide layer by multi-energy implantation of Ge negative ions and their cathode-luminescence**
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- P - 387 Structural properties of Fe-silicide nano-islands on the Si(100) surface synthesized by low energy ion implantation**
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- P - 420 A novel method for surface fabrication in micro nano scale by low energy Ion beam irradiation**
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- P - 428 Advanced strategy for In-Line process monitoring using FIB and TEM**
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- P - 436 Photo-catalytic and hydrophilic properties of anatase TiO₂ with the thickness of several tens of nanometer and improvements for photo-catalytic property by nitrogen irradiation with several-hundred-electron-volts**
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- P - 450 Evaluation of the excess and clustered silicon profiles in a silicon implanted SiO₂ layer**
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- P - 451 Fast low temperature impurity redistribution in Si induced by ion irradiation**
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- P - 468 Converging beam extraction system for high intensity ion beam irradiation**
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- P - 475 Nano-scale fabrication of glass by use of Ar ion beam**
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- P - 491 Ripening and inverse ripening of gold nanoclusters on SiO₂ induced by ion beam irradiation**
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- P - 506 Multi-purpose and wide temperature range irradiation facility**
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