

PROGRAM

8:30-8:40 Opening Remarks
Tomoyuki Kakeshita

Session 1

Chair: **Vladimir Shavrov**

8:40-9:00 “The Electronic Structure and Elastic Properties of Ideal and Off-stoichiometric Heusler Alloys from the First Principles”
Svetlana Kulkova

9:00-9:20 “Dynamics of Martensitic Transformation on B2 Alloys”
Takuya Ohba

9:20-9:40 “First-principles and Monte Carlo study of magnetic and magnetocaloric properties of $Ni_{2+x}Mn_{1-x}Ga$ and $Ni_2Mn_{1+x}In_{1-x}$ alloys”
Vasily Buchelnikov

9:40-10:00 “Surface Reaction Design from Ab-Initio Quantum Dynamics Calculations - Spin and Dynamics Manipulation -”
Wilson Agerico Diño

10:00-10:20 “Symmetry-conforming theory of martensite stabilization/destabilization: application to Au-Cd and Ni-Mn-Ga shape-memory alloys”
Victor L'vov

10:20-10:50 Coffee Break

Session 2

Chair: **Minoru Nishida**

10:50-11:10 “Recent developments in the field of Ni-Mn-Ga FSMAs: Observations of giant superelastic tensile stains”
V. A. Chernenko

11:10-11:30 “Magnetocaloric effect in Heusler-based ferromagnetic shape memory alloys”
V. V. Khovaylo

11:30-11:50 “Martensitic transformation as an unusual mechanism of deforming solids”
Yuri. N. Koval

11:50-12:10 “Inverse Magnetocaloric Effect in NiCoMnIn Heusler Alloy”
A. N. Vasiliev

12:10-12:30 “Co substitution effects on the magnetic properties in Ni-Mn-Sn alloys”
Rie Y. Umetsu

12:30-14:00 Lunch

Session 3

Chair: *V. A. Chernenko*

- 14:00-14:20 “Shape Memory Effect and Superelasticity in High-Strength Single Crystals with Thermoelastic Martensitic Transformation”
Yuriy Chumlyakov
- 14:20-14:40 “Peculiarity of phase transformation and functional properties of amorphous-crystalline TiNi-based shape memory alloys”
Natalia Resnina
- 14:40-15:00 “Structure, Substructure and Functional Properties of Thermomechanically Treated Ti-Ni and Ti-Nb-Zr (Ta) Shape Memory Alloys”
Sergey Prokoshkin
- 15:00-15:20 “Phase Transformation and Mechanical Property of Nano-Structured TiNi”
Koichi Tsuchiya
- 15:20-15:40 “TEM Observations on the Ferromagnetic Domain Formation in Functional Materials”
Yasukazu Murakami
- 15:40-16:10 Coffee Break

Session 4

Chair: *A. N. Vasiliev*

- 16:10-16:30 “Magnetic Field Induced Strain and Phase Transitions in Ni-Mn-Ga Alloys”
V. V. Kokorin
- 16:30-16:50 “Application of Magnetic and Nonmagnetic Shape Memory Alloys in Micro- and Nanomechanical Devices”
Vladimir Shavrov
- 16:50-17:10 “Shape memory effect and structural changes during martensitic transformation in high temperature shape memory alloys”
Georgiy S. Firstov
- 17:10-17:30 “Novel Electron Microscopy Study of Self-Accommodation in B19' Ti-Ni Martensite”
Minoru Nishida
- 17:30-17:50 “Kinetics of Martensitic Transformation Investigated by Magnetic Field”
Tomoyuki Kakeshita
- 17:50-18:00 Closing Remarks
V. V. Kokorin