

Oral Sessions

Monday

Plenary

1. MECHANICAL PROPERTIES OF CONDENSED MATTER

A.V. Granato

Invited

2. VIBRATIONAL PROPERTIES OF SHAPE MEMORY ALLOYS

Lluís Mañosa and Antoni Planes

Invited

3. MECHANOMAGNETIC SPECTROSCOPY OF FERROMAGNETIC SHAPE MEMORY ALLOYS

S. Kustov, M. L. Corró, E. Cesari

4. INTERNAL FRICTION IN HIGH TEMPERATURE Ru-Nb ALLOYS

M. L. Nó, K. Chastaing, A. Denquin and J. San Juan

5. ORIGIN OF THE RELAXATION BEHAVIOR IN THE MARTENSITIC STATES OF Ti-Ni-BASED SHAPE MEMORY ALLOYS

Genlian Fan, Yumei Zhou, Kazuhiro Otsuka, Xiaobing Ren, Fuxing Yin

6. MECHANICAL SPECTROSCOPY MEASUREMENTS ON SMA HIGH-DAMPING COMPOSITES

G. A. López, M. Barrado, J. San Juan and M.L. Nó

7. EDDY CURRENT DAMPING REVISITED

Daniel N. Beshers

8. RESONANT ULTRASOUND SPECTROSCOPY OF SINGLE CRYSTALS WITH STRONG MAGNETO-ELASTIC ATTENUATION

H. Seiner, L. Bicanová, L. Heller, P. Sedlák, M. Landa

9. TRANSPORT OF MAGNETIC VORTICES BY SURFACE ACOUSTIC WAVES IN A HIGH- T_c SUPERCONDUCTOR

C. Hucho, F. Jachmann, M. Rakel, A. Wirsig

10. HOPPING AND CLUSTERING OF OXYGEN VACANCIES IN SrTiO₃

F. Cordero

11. ELASTIC MODULI AND STRUCTURE OF CAESIUM BORATE GLASSES

G. D'Angelo, C. Crupi, F. Di Stefano, G. Tripodo

Tuesday

Plenary

12. MULTISCALE ASPECTS OF BROWNIAN MOTION

G. Gremaud

Invited

13. APPLICATION OF MECHANICAL SPECTROSCOPY TO STUDIES OF ATOMIC DIFFUSION IN ORDERED COMPOUNDS

H. Numakura

Invited

14. NOVEL MATERIALS FOR THE SOLID STATE HYDROGEN STORAGE

O. Palumbo, A. Paolone, P. Rispoli and R. Cantelli

15. ANELASTIC MECHANICAL LOSS SPECTROMETRY OF HYDROGEN IN AUSTENITIC STAINLESS STEELS

Y. Yagodzinsky, E. Andronova, M. Ivanchenko, and H. Hänninen

16. Fe-C SNOEK PEAK IN IRON AND STONY METEORITES: METALLURGICAL AND COSMOLOGICAL ASPECTS

M. Weller, U.G. K. Wegst

17. EFFECTS OF PREFERRED ORIENTATION ON SNOEK PHENOMENA IN COMMERCIAL STEELS

R. P. Krupitzer, R. Gibala,

18. MECHANISMS OF ANELASTICITY IN Fe-Ge-BASED ALLOYS

I. S. Golovin, H. Neuhäuser, S. A. T. Redfern

19. INTERACTIONS BETWEEN SOLUTE ATOMS IN Fe-Si-Al-C ALLOYS AS STUDIED BY MECHANICAL SPECTROSCOPY

H.-R. Sinning, O. A. Sokolova, I. S. Golovin

20. STRESS-INDUCED AND ATOMIC ORDERING IN A SERIES OF Au-Cu-Ag ALLOYS

John Hennig, Daniele Mari, Robert Schaller

21. ANELASTICITY AND ANELASTIC RELAXATION IN NANOSTRUCTURED MgH₂ - Mg : CORRELATION WITH HYDROGEN SORPTION KINETICS

E. Bonetti, E. Callini, A. Fiorini, L. Pasquini, A. Montone, M. Vittori Antisari

22. HYDROGEN DYNAMICS AND CHARACTERIZATION OF THE TETRAGONAL-TO-ORTHORHOMBIC PHASE TRANSFORMATION IN AMMONIA BORANE

A. Paolone, O. Palumbo, P. Rispoli, R. Cantelli, T. Autrey

23. HYDROGEN DIFFUSION IN THE LAVES-PHASE COMPOUND TiCr_{1.78}

G. Mazzolai, B. Coluzzi, A. Biscarini, F. M. Mazzolai and A. Tuissi, F. Agresti, G. Principi and S. Lo Russo

Wednesday

Plenary

24. MECHANICAL HYSTERESIS IN CERAMIC MATRIX COMPOSITES

G. Fantozzi, P. Reynaud

Invited

25. UNDERSTANDING THE MECHANICAL PROPERTIES OF HARDMETALS THROUGH MECHANICAL SPECTROSCOPY

D. Mari

Invited

26. NANOSCALE ELASTIC INHOMOGENEITY OF METALLIC GLASS OBSERVED BY ULTRASONIC AND INELASTIC X-RAY SCATTERING MEASUREMENTS

T. Ichitsubo, E. Matsubara,

Invited

27. DYNAMICS OF GLASSY MATERIALS BY HIGH RESOLUTION LIGHT AND X-RAY SCATTERING

D. Fioretto

28. RELAXATION OF THERMAL STRESSES IN METAL MATRIX COMPOSITES STUDIED BY MECHANICAL SPECTROSCOPY

A. S. M. F. Chowdhury, D. Mari and R. Schaller

29. MECHANICAL RELAXATIONS IN A MOLECULAR GLASS FORMER AT ULTRASONIC FREQUENCIES

A. Mandanici, M. Cutroni

30. ISOTHERMAL MECHANICAL RELAXATIONS IN SINGLE AND MIXED ALKALI SILICATE GLASSES.

A. Rivière and L. Chocinski-Arnault

31. PHYSICAL AGING AND MOLECULAR MOBILITY OF AMORPHOUS MATTER

S. Etienne, L. David

32. INTERNAL FRICTION STUDIES ON PHASE TRANSFORMATION IN β Zr-19Nb ALLOY

Z. L. Pan and N. Wang

Invited

33. GRAIN BOUNDARY INTERNAL FRICTION PEAK IN BICRYSTALS WITH DIFFERENT MISORIENTATIONS

Q. P. Kong, W. B. Jiang, Y. Shi, P. Cui, Q. F. Fang, M. Winning

34. A PHENOMENOLOGICAL THEORY OF ATTENUATION BY GRAIN-BOUNDARY SLIDING

S. J. S. Morris and Ian Jackson

35. ANELASTICITY STUDY ON INTERFACES OF NANOCRYSTALLINE Au AND NANOPOROUS Au

H. Tanimoto, K. Mutou, Y. Hosonuma, K. Yamamoto, H. Mizubayashi

Thursday

Plenary

36. THE BORDONI RELAXATION REVISITED

G. Schoeck

Invited

37. MECHANICAL SPECTROSCOPY OF POLYMERS CONTAINING SMALL MOLECULES AND POLYMERS WITH INCREASING CROSSLINKING DENSITY

R. Kirchheim

Invited

38. INTERNAL FRICTION AND IMPACT TOUGHNESS OF STRUCTURAL BCC ALLOYS

B. K. Kardashev^a, V.M. Chernov^b

39. PEIERLS STRESS AND KINK PAIR ENERGY IN NaCl TYPE CRYSTALS

S. Takeuchi, H. Koizumi, T. Suzuki

40. AN EXPERIMENTAL STUDY OF THE BORDONI RELAXATION IN ALUMINUM

Toshio Kosugi, Kei Sakieda, Yoshiaki Kogure

41. INFLUENCE OF DISLOCATION NETWORKS ON THE RELAXATION PEAKS AT INTERMEDIATE TEMPERATURE IN PURE METALS AND METALLIC ALLOYS

A. Rivière, M. Gerland and V. Pelosin

42. INTERPLAY OF DISLOCATION-RELATED PROCESSES IN THE INTERNAL FRICTION SPECTRA OF IRON-BASED MATERIALS

M. J. Konstantinović

43. DAMPING PROPERTIES OF AN ASSEMBLY OF TOPOLOGICALLY INTERLOCKED CUBES

Stephan Schaare, Werner Riehemann, Yuri Estrin

44. ANELASTICITY OF FUNCTIONALLY GRADED 51CrV4 STEEL AFTER THERMO-MECHANICAL COUPLING

J. Göken, M. Maikranz-Valentin, K. Steinhoff, I. S. Golovin, T. V. Ivleva, A. Flejszar

Friday

Plenary

45. ANELASTICITY IN MINERALS: CHALLENGES FOR INTERPRETING DEEP EARTH STRUCTURE

Simon A T Redfern

Invited

46. LOW DISSIPATION MATERIALS FOR HIGH SENSITIVITY GRAVITATIONAL WAVE DETECTORS

L. Bosi, L. Carbone, A. Dari, L. Gammaitoni, F. Marchesoni, F. Travasso, H. Vocca

Invited

47. MEASURING INTERNAL FRICTION AT NANO-SCALE. ULTRA-HIGH DAMPING IN MICRO-NANO PILLARS

J. San Juan, M. L. Nó, C. A. Schuh

Invited

48. HYDROGEN-INDUCED HIGH DAMPING OF BULK METALLIC GLASSES

M. Hasegawa

49. ANOMALOUS LARGE INTERNAL FRICTION OBSERVED FOR nm-THICK Ag FILM BELOW ROOM TEMPERATURE

H. Tanimoto, A. Fujiwara, K. Yamaura, H. Mizubayashi

50. MODELING AND CONTROL OF THE HIGH DAMPING BEHAVIOR IN Ti-Nb-O ALLOYS

Fuxing Yin, Liming Yu and Dehai Ping

51. GHOST INTERNAL FRICTION PEAKS AND ARTIFICIAL PEAK BROADENING. MISUNDERSTANDINGS, CONSEQUENCES AND SOLUTION

L. B. Magalas, M. Majewski