INTERNATIONAL SUMMER SCHOOL ON
MECHANICAL SPECTROSCOPY
FROM BASIC PHYSICS TO APPLICATION
Cracow – Krynica, POLAND, September 9 – 14, 1991

A satellite Symposium to the European Conference on Internal Friction and Ultrasonic Attenuation in Solids
ECIFUAS – 6, Cracow, September 4–7, 1991

PROGRAMME

PART I
BASIC PHENOMENA

1. An Introduction to Mechanical Spectroscopy.
2. Atomic size defects.
   - 2.1 Point defects in crystalline solids.
   - 2.2 Quantum effects in point defect relaxations.
   - 2.3 Atomic rearrangements in noncrystalline solids.
3. Dislocations.
   - 3.1 Intrinsic properties of dislocations.
   - 3.2 Dislocation–point defect interactions.
   - 3.3 Inertial effects of dislocations.
   - 3.4 Grain boundary relaxations.
4. Phase Transformations.

PART II
APPLICATIONS OF MECHANICAL SPECTROSCOPY TO MATERIALS SCIENCE

5. Metals and alloys.
   - 5.1 Application to physical metallurgy.
   - 5.2 Study of fatigue.
   - 5.3 Study of precipitation and recrystallization.
   - 5.4 Hydrogen in metals.
   - 5.5 Irradiation damage.
   - 5.6 High damping materials.
6. Noncrystalline materials.
   - 6.1 Study of polymer materials.
   - 6.2. Study of glasses.
   - 6.3. Coupling — model, interpretations of mechanical spectoscopy in materials science.
7. Ceramics, composite materials, fibres.
   - 7.1 Defects in oxide ceramics.
   - 7.2. Study of ceramic materials.
   - 7.3. Damping processes in composite materials and fibres.
8. Thin layer materials.
   - 8.1 Relaxations and damping processes in thin–layer materials.
9. Applications of special techniques.
   - 9.1 Low frequency techniques.
   - 9.2 High and ultra high frequency techniques.
   - 9.3 Surface waves.
   - 9.4 Magnetomechanical damping.
   - 9.5 Mechanical spectroscopy and nondestructive testing.
   - 9.6 Damping measurements in engineering for the limitation of structural vibration.

LECTURERS

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GENERAL INFORMATION

1. The Academy of Mining and Metallurgy, AGH, Poland, invites applications for an International Summer School on Mechanical Spectroscopy ISSMS which will take place in Krynica–spa, Poland from September 9 to September 14, 1991.

2. The ISSMS is addressed to material scientists, to physicists coming from academic and industrial laboratories. Special consideration will be given to the interest of young scientists working or interested in mechanical spectroscopy, Ph.D. students and representatives from industry.

3. The ISSMS consists of a series of Basic Phenomena lectures and a series of lectures on Applications of Mechanical Spectroscopy to Materials Science. The approach will be multi–disciplinary to allow both scientists already working within the field and other wishing to enter the area to obtain an interlocking overview of this expanding subject.

4. ENGLISH will be the working language of the school.

5. RESERVATIONS

To ensure a place at the ISSMS please send the Application Form as soon as possible and in any case not later than February 15, 1991.
You may also register by
– telex 322203 AGH PL, 322274 AGH PL or
– telefax (+.48.12) 33.10.14.
Young researchers should enclose a letter of recommendation from the head of their research group.

6. IMPORTANT DATES
   - Submition of application form: by March 30, 1991
   - Closing date for final registration and payment of the fee: by June 14, 1991

7. REGISTRATION

The registration fees for the ISSMS including: transportation from Cracow, seminars, full board and lodging, social programme and printed matters are 350 USD. The registration fee for Ph.D. students is reduced to 220 USD. The number of participants is limited to 90.

8. PAYMENT

By bank transfer before June 14, 1991. By order of [your name(s)] please transfer your telegraphic payment in favour of BANK PRZEMYSŁOWO–HANDLOWY w Krakowie, Poland, account no. 813127200 with Dresdner Bank AG Frankfurt/Main with reference AGH/ISSMS.

9. ENQUIRIES

All enquiries, application and registration form should be sent to:

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