

The Effect of Phase Transformations in Solids on Constitutive Laws

July 2-4, 1990, Vienna Technical University, Austria

Chairmen: Prof. Dr. F.G. Rammerstorfer (TU Vienna)
Prof. Dr. F.D. Fischer (MU Leoben)

BRIEF REPORT

The European Mechanics Colloquium 263 "The Effect of Phase Transformations in Solids on Constitutive Laws" took place on July 2-4, 1990 at the Vienna Technical University. 46 scientists, who came from Belgium, Federal Republic of Germany, France, German Democratic Republic, Italy, Japan, Luxembourg, Netherlands, Poland, Romania, Sweden, USA, USSR and Austria, participated and 29 contributions were presented.

The Colloquium was divided into 7 sessions, entitled "General Aspects and Experiments", "Thermodynamical Aspects", "Formulation of Material Laws", "Aspects for Applications", "Micromechanics", "Shape Memory Materials", "Geophysical Considerations". Each session started with an one hour introductory lecture. The presentations were discussed individually. On the second day a general discussion was held, and a final discussion in the afternoon of the third day was organized as a panel discussion. In addition to these formal discussions a great number of informal exchanges took place. This was especially promoted by the fact that nearly all participants were accommodated in the same hotel.

Special profit could be drawn from the fact that scientists from very different research fields, i.e. heat treatment in metallurgy, shape memory materials and geophysical phase changes, as well as more theoretically and rather experimentally oriented scientists gave their contributions to the common topic of the Colloquium. One of the most essential themes, discussed extensively and in an enthusiastic manner was the role of thermodynamics and its correct formulation and use with respect to phase transformations under multi-axial stress states.

The participants did not only present their contributions but have also learned a lot from each other.

Participating Scientists come from
(in alphabetic sequence)

Belgium	1
Federal Rep. of Germany	3
France	14
German Democratic Republic	1
Italy	1
Japan	1
Luxembourg	1
Netherlands	2
Poland	2
Romania	2
Sweden	4
USA	1
USSR	8
Austria	5

FINANCIAL ARRANGEMENTS

The colloquium has been sponsored by:

Bundesministerium für Wissenschaft und Forschung ...	öS 30.000,-
Rektor der Technischen Universität Wien	" 10.000,-
Österreichische Akademie der Wissenschaften	" 2.500,-
Wiener Fremdenverkehrsverband	" 15.000,-
Amt der Steiermarkischen Landesregierung	" 10.000,-
	<u>öS 67.500,-</u>

Conference Fees payed by participants from
Belgium, Federal Republic of Germany, France,
Italy, Luxembourg, Netherlands öS 11.129,85

This financial support and income has been used for:

- 1) Financial supports, accomodation and board of the participants
from German Democratic Republic, Poland, Romania, USSR
- 2) Cost for coffee and beverages in the coffeebreaks
- 3) Payments for social program
- 4) Administrative efforts

No honoraries are payed for any participant or any chairman.