

COOPERATION OF THE DEPARTMENTS OF PHYSICS OF THE TECHNICAL UNIVERSITIES OF BUDAPEST AND BERLIN

Minisymposium on
Non-Linear Thermodynamics and Reciprocal Relations
September 22 - 25, 1996 Balatonvilágos, Hungary[‡]

September 23, Monday

*Organization: Prof. J. VERHÁS
Institute of Physics, Technical University,
BUDAPEST, Hungary, H-1521*

Chairman: W. MUSCHIK

MAZUR, P.¹: Onsager's Reciprocal Relations and the Thermodynamics of Irreversible Processes.

MAUGIN, G. A.¹: Thermomechanics of Heterogeneous Materials with Weakly Nonlocal Microstructure.

Chairman: G. A. MAUGIN

MUSCHIK, W.: A Phenomenological Foundation of OC-reciprocal Relations.

OLÁH, K.: Reciprocity Relations of Maxwell and Onsager. (Thermokinetics).

VAN KAMPEN, N. G.¹: Derivation of Onsager Relation, for Nonlinear System.

VERHÁS, J.: Some Nonlinear Reciprocal Relations.

MARTINÁS, K.: Entropy—Extropy—Exergy in Environmental Economy.

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[‡]Published in the previous issue of the journal.

Chairman: J. VERHÁS

NYÍRI, B.²: Comparison of Nonlinear Generalizations of Gyarmati's Variational Principle.

VÁN, P.: The Problem of Thermodynamic Stability of Magnetizable Media.

BÓDISS, J.: On Stability of Chemical Reaction Networks.

September 24, Thursday

Chairman: G. LEBON

SIENIUTYCZ, S.: Nonlinear Dynamics of Generalized Carnot Problem of Maximum Work Received in Finite Time from a System of Two Continua with Different Temperatures.

BEDEAUX, D.: Surface Contributions to EMF of Nonisothermal Electrode Concentration Cells.

KJELSTRUP, S.: Equipartition of Forces - A New Principle for Process Design and Optimization.

KISS, E.¹: On the Principle of Minimum Entropy Production in Quasi-linear Case and its Connection to Statistical Mechanics.

Chairman: D. BEDEAUX

NETTLETON, R. E.¹: Nonlinear Reciprocity: Statistical Foundation and Applications to Nonlinear Effects in Heat Transport and Chemical Reactions.

LEBON, G.¹: Heat Conduction at Low Temperature: Nonlinear Generalization of Guyer-Krumhansl's Equation.

CASAS-VAZQUEZ, J.- JOU, D.¹: Onsager Relations in Extended Irreversible Thermodynamics.

BÉDA, GY.-BÉDA, P.: Thermodynamics of Plastic Bodies.

SZEKERES, A.-HELLER, R: Thermodynamics of Complex Systems: Special Problems of Coupled Thermal and Moisture Fields.

MATOLCSI, T.: Dynamics of Phase Transitions.

²No written version of the lecture.