

## THE LARS ONSAGER SYMPOSIUM

Coupled Transport Processes and Phase Transitions

June 2–4, 1993

Trondheim, Norway

### The Lars Onsager Lecture 1993

*Michael E. Fisher*

Lars Onsager 1903–1976: Theorist for the Twentieth Century

### INVITED LECTURES

*R. J. Baxter*

Solvable models in statistical mechanics, from Onsager onwards

*M. E. Fisher*

The story of coulombic criticality

*H. L. Friedman*

A molecular theory of solvation dynamics in water

*J. L. Lebowitz*

Microscopic origin of macroscopic behavior: A tribute to Lars Onsager

*H. N. W. Lekkerkerker*

Phase transitions in concentrated colloidal dispersions

*E. H. Lieb*

The Hubbard model: Some rigorous results and open problems

*J. F. Nagle*

Biomembranes, ice and Onsager

*G. Stell*

Phase transitions in ionic and dipolar fluids

### CONTRIBUTED TALKS

*D. B. Abraham*

Droplets and the Ising model

*G. Backx, J. O. Indekeu, G. Langie, and A. Robledo*

Line tension at wetting

*S. M. Bhattacharjee and S. Mukherji*

Loop-mediated crossover in the 3D Ising model

*A. Böttcher*

The Onsager formula and the Fisher-Hartwig conjecture for Toeplitz determinants

*M. Danielewski*

The conservation of momentum and energy in open systems, a diffusional approach

*G. Eyink and Y. Oono*

Onsager's principle of least dissipation and large fluctuation theory

*K. Fossheim, Y. Tomioka, S. Jacobsen, O.-M. Nes, T. Suzuki, and K. A. Müller*

Anomalous low-temperature elastic properties of  $\text{SrTiO}_3$

*V. Frette, J. Feder, T. Jøssang, and P. Meakin*

Avalanches along fluid structures in porous media

*L. S. García-Colín and J. L. del Río*

Onsager's reciprocity relations: Scope and limitations

*B. Hafskjold and S. K. Ratkje*

Criteria for local equilibrium in a system with transport of heat and mass

*H. G. Hertz*

A new derivation of the Onsager reciprocity relations for ternary isothermal diffusion and thermal diffusion

*K. Kaski*

Computer simulation of microscopic droplet spreading on solids

*A. O. Kodintseva, V. A. Khokhlov, and E. S. Filatov*

Heat-transfer peculiarities of alkali halides near crystal-melt phase transition

*M. Laso, S. Matter, U. W. Suter, and H. C. Öttinger*

Momentum transport and coexistence of ordered phases in inhomogeneous shear flow of colloidal dispersions

*C. A. Lütken*

Anisotropic transport and complexified duality

*J. L. McCauley*

Persistent current decay in superfluid films as a "vertex electrolyte" problem

*A. V. Melkikh and V. D. Seleznev*

Cross kinetic phenomena for heat and mass transfer in asymmetric membrane

*L. V. Mikheev*

Exact variational solution of a layered planar Ising model

*D. G. Miller*

Some historical comments about Onsager's path to the ORR and his own assessment of the importance of his work on irreversible processes

*T. Prellberg*

Self-interacting partially directed self-avoiding walks: An exact solution

*T. Riste and K. Otnes*

An experimental study of the temporal director fluctuations in a nematic liquid crystal

*E. J. Samuelsen, E. D. Tuset, D. Ausen, and S. Jagner*

Stacking order in a layered  $K_3Me(CN)_6$ -compound studied by diffuse X-ray scattering: A realization of the ANNNI model?

*W. Schröder, S. Wiegand, M. Kleemeyer, H. Weingärtner, T. Merkel, and S. Käshammer*

Near-critical fluctuations in electrolytes with liquid-liquid unmixing

*V. A. Shneidman and P. Hänggi*

Nonlinear Einstein-Onsager relation and continuous approximation of a random walk

*A. T. Skjeltorp*

Monodisperse polymer particles used for modeling aggregation, ordering and dynamic processes