I C E S

Interdisciplinary Conference on Electromagnetic Scattering

Clarkson College of Technology — Potsdam, New York — August 13–15, 1962

The purpose of this conference is to bring together scientists of widely different backgrounds interested in Electromagnetic Scattering in order to discuss problems of mutual interest which transcend disciplinary lines. In addition to the lectures, the program will be scheduled to allow maximum time for general discussion by all participants.

Sponsors: Division of Colloid and Surface Chemistry of the American Chemical Society; Air Force Cambridge Research Laboratories, Office of Aerospace Research, United States Air Force.

Pre-registration by May 15 will be necessary. In the event of an exceptionally large response, it may be necessary to limit the number of participants. Final invitations including reservation forms for accommodations will be mailed about June 1. For pre-registration, please write directly to

Dr. Milton Kerker
Clarkson College of Technology
Potsdam, New York.

Program

SESSION A. SCATTERING BY SPHERICAL PARTICLES

Chairman: H. C. VAN DE HULST, Sterrewacht Te Leiden, The Netherlands

1. LOUIS J. BATTAN and BENJAMIN M. HERMAN, University of Arizona, "Some Aspects of Angular Scattering of Microwaves by Spherical Particles."
2. KURT BULLRICH, University of Mainz, Germany, "Mie Scattering and Polarization in the Atmosphere."
3. DIRAN DEIRMENDJIAN, The Rand Corporation, "Scattering and Polarization Properties of Polydispersed Suspensions with Partial Absorption."
4. WILFRIED HELLER, Wayne State University, "Theoretical and Experimental Investigations of the Light Scattering of Colloidal Spheres."
5. NELSON LOGAN, Lockheed Missile and Space Company, "The History of the Exact Solution for the Scattering of Electromagnetic Waves by a Sphere."
6. J. R. PROBERT-JONES, Meteorological Office, Bracknell, England, "Surface Waves Associated With the Back Scattering of Microwave Radiation by Large Ice Spheres."

SESSION B. SCATTERING BY NON-SPHERICAL PARTICLES

Chairman: JESSE GREENSTEIN, California Institute of Technology

7. DAVID ATLAS, Air Force Cambridge Research Laboratories, "Back Scattering from Dielectric Spheres and Oblate Spheroids of Low Refractive Index, with and without a High Index Absorbing Coat."
8. H. BENOIT, C.N.R.S., Strasbourg, France, "Light Scattering in Dilute Solutions of Polymers."
9. J. DONN, National Aeronautics and Space Administration, "Astronomical Scattering by Irregularly Shaped Particles."
10. J. M. GREENBERG, Rensselaer Polytechnic Institute, "Interstellar Extinction and Polarization. Scattering by Non-Spherical Particles Whose Size is of the Order of the Wavelength. Experiment and Theory."
11. M. F. INGHAM, Oxford University, England, "Scattering of Interplanetary and Cislunar Dust Particles."
12. JOSEPH B. KELLER and BERTRAM R. LEVY, New York University, "Scattering by Non-Uniform Objects."
13. ANTON PETERLIN, Research Triangle Institute, "Light Scattering by Non-Gaussian Macromolecular Coils."

SESSION C. SCATTERING BY CHARGED SPECIES IN SOLUTION

Chairman: PETER DEBYE, Cornell University

14. MILTON KERKER, JOSIP KRATOHVIL and EGON MATIJEVIC, Clarkson College of Technology, "Light Scattering and Thermodynamic Properties of Solutions of Electrolytes."
15. J. TH. G. OVERBEEK, University of Utrecht, The Netherlands "Light Scattering by Salt Solutions Containing Charged Collodial Particles."
16. DIRK STIGER, U.S. Department of Agriculture, "Statistical Thermodynamic Aspects of Light Scattering in Solution Such as Multicomponent Effects, McMillan-Mayer Theory, Effects of Charge and Shape."
17. S. N. TIMASHEFF, U.S. Department of Agriculture, "The Application of Light Scattering and Small Angle X-ray Scattering to Studies of Interaction in Biological Systems."

SESSION D. INTERACTIONS IN SOLIDS AND LIQUIDS AS DETERMINED BY ELECTROMAGNETIC SCATTERING

Chairman: VICTOR K. LAMER, Columbia University

18. H. BRUMBERGER, Syracuse University, "Scattering of Electromagnetic Radiation as a Tool for Investigating Critical Phenomena."
19. PETER DEBYE, Cornell University, "Light Scattering and Molecular Forces."
20. B. R. GOOSICK, Arizona State University, "Optical Extinction by Metal Precipitates in Semiconductors and Insulators."
21. RICHARD STEIN, University of Massachusetts, "The Scattering of Light by Heterogeneities in Polymeric Solids."
22. VICTOR TWERSKY, Electronic Defense Laboratory, "Multiple Scattering of Waves in Dense Distributions of Large Tenuous Scatterers."

SESSION E. MULTIPLE AND INCOHERENT SCATTERING

Chairman: VICTOR TWERSKY, Electronic Defense Laboratory

23. R. S. BOLGIANO, Cornell University, "The Role of Radio Wave Scattering in the Study of Atmospheric Microstructure."
24. STUART CHURCHILL, University of Michigan, "Exact, Numerical Solutions of Multiple Anistropic Scattering."
25. C. C. GROSJEAN, University of Ghent, Belgium, "Recent Progress in the Development of a New Approximate General Theory of Multiple Scattering."
26. J. S. MARSHALL, K. L. S. GUNN and WALTER HITSCHFELD, McGill University, Montreal, Canada, "The Information Contained in Incoherent Scattered Radiation."
27. ZDENEK SEKERA, University of California, Los Angeles, "Multiple Scattering in Media with Anisotropic Scattering."
28. J. VOGE, Centre National D'Etudes Des Telecommunications Des P.T.T., Issy, France, "Atmospheric Scatter Reflection Phenomena in Radio Wave Propagation."
29. B. R. BEAN, Central Radio Propagation Laboratory, N.B.S., "Turbulent Transfer Properties of the Radio Refractive Index."

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