I. 1974 Coblentz Award

Dr. C. Kumar N. Patel, Director of the Electronics Research Laboratory at Bell Telephone Laboratories, Holmdel, New Jersey has been named winner of the 1974 Coblentz Award.

Dr. Patel was born in Baramati, India, on July 2, 1938. He graduated from the College of Engineering at Poona University (India) with a B.E. in Telecommunications in 1958. He received a Ph.D in electrical engineering from Stanford University in 1961. While at Stanford, he conducted research on narrow bandpass ferrimagnetic filters.

In 1961, he joined Bell Laboratories where he has discovered a number of laser systems and explored various mechanisms of gas laser excitation, quantum effects and nonlinear optical phenomena in the infrared. In 1965, he invented a flowing gas laser that for the first time utilized the transfer of vibrational energy of molecules to obtain what was then the highest continuous power output at infrared frequencies and the highest energy conversion efficiency of any laser. It was his discovery of laser action on vibrational-rotational transitions of carbon dioxide that resulted in the development of very high CW power output and high efficiency CO₂ lasers. In collaboration with colleagues at Bell Laboratories, he developed a modified version of this laser that has an AC power output of nearly 200 watts.

Dr. Patel's investigations of atomic gas laser transitions in the infrared at wavelengths up to 133 microns have contributed significantly in helping bridge the gap between laser-generated radiation and that coming from microwave sources. His work on molecular vibrational-rotational laser transitions has had significant impact on molecular spectroscopy. Other aspects of his research at Bell Laboratories include studies of power output and pressure dependence in gas lasers, and most recently nonlinear optical effects in the infrared.

His award address, "Tunable Spin-flip Raman Laser and High Resolution Infrared Spectroscopy", will be given during the Coblentz Symposium on Thursday, March 7 at Cleveland.
II. Coblentz Symposium at Cleveland

A fine program on the state of the art of applied Fourier Transform spectroscopy has been arranged by Ron Kagel, and will be presented during the Coblentz Symposium on March 7. The program is as follows:

Presentation of the 1974 Coblentz Society Award to Dr. C.K.N. Patel, and Awardee's Address.

"Application of Infrared Fourier Transform Spectroscopy to the Study of Surfaces, Thin Films, and Polymeric Systems." R. J. Jakobsen, Battelle, Columbus Laboratories, 505 King Ave., Columbus, Ohio 43201.

"Infrared Fourier Transform Studies of Reactions in Low-Pressure Gases." - J. D. McDonald, Department of Chemistry, University of Illinois, Urbana, Illinois 61801.

"Infrared Fourier Transform Spectrometry of Gas Chromatography Effluents." - Leo V. Azarraga and Ann C. McCall, SERL, EPA, College Station Road, Athens, Georgia 30601.

III. Raman Clinic

A new feature this year at the Cleveland Conference will be a Coblentz Society Clinic on Elementary Raman Spectroscopy. This short course is another facet of the Society's educational program in molecular spectroscopy, and will supplement the two short courses on infrared spectroscopy. The Clinic will be held on Wednesday, March 6. The faculty will be headed by Dr. Bernard J. Bulkin, Hunter College. An application blank is included with this mailing.

IV. Evaluated Infrared Reference Spectra

Volume 9 in the Coblentz Society series of infrared reference spectra is now available. This valuable collection of 1000 carefully evaluated reference spectra should be in every working spectroscopist's library. It may be ordered in printed form from Sadtler Research Laboratories, 3316 Spring Garden St., Philadelphia, Pa., 19104 or on microfilm from the Coblentz Society, P.O. Box 9952, Kirkwood, Missouri 63122. Cost is $295; cumulative indices are available for $40.

Anyone having high quality non-proprietary infrared spectra is asked to consider lending them to the Society for possible publication in the collection. They should be sent to Mrs. C. D. Craver at the Missouri address given above.
V. Molecular Formula Index to the Infrared Literature

We have been advised that ASTM may discontinue sales of two infrared spectra index volumes, AMD-31 Molecular Formula; and AMD-32, Numerical. AMD-31, for those not familiar with it, is an index to 102,000 infrared spectra arranged by molecular formula. This volume is indispensable to any infrared laboratory, and should be in every technical library as well; it is the Chemical Abstracts of the infrared literature. Spectroscopists are urged to support the indexing effort by buying this volume now if they do not already have it; cost is only $50, or $40 to ASTM members. Spectroscopists who wish to express support for the ASTM indexing program (and this should include almost all infraredrs) may write to Mr. W. T. Cavanaugh, Executive Director, ASTM, 1916 Race St., Philadelphia, Pa. 19103.

VI. Election to the Board of Managers

Please vote for your choice of the candidates listed on the ballot. Voting deadline is Jan. 15, 1974. Ballots should be returned to the Secretary, Dr. R. W. Hannah, c/o Perkin-Elmer Corp., 761 Main Ave., Norwalk, Conn. 06851.

VII. What's Wrong With This Spectrum?

A. Problem is Mailing No. 59. If you haven't guessed already, the sample is contaminated with mineral oil---note the extraneous absorptions at 2900 and 1450 cm⁻¹.

B. Today's problem: We have seen a number of examples of this situation in the recent published literature. It is also a common defect in spectra submitted for publication in the Coblenz Society Spectra Collection. The sample is phenylhydrazine hydrochloride, prepared as a KBr pellet.