1996 Award for a Distinguished Contribution in Mass Spectrometry

Burnaby Munson and Frank H. Field for the Development and Application of Chemical Ionization Mass Spectrometry

Burnaby Munson

The 1996 ASMS Award for a Distinguished Contribution in Mass Spectrometry recognizes a focused, singular achievement that significantly changed the practice of mass spectrometry. The 1996 Award will be presented to Professor Burnaby Munson, University of Delaware and Professor Frank Field, Rockefeller University, emeritus, on May 16, 1996, at this Conference. Professors Munson and Field are recognized for the development of chemical ionization (CI) mass spectrometry, which was first described in an article in the Journal of the American Chemical Society **88**, 2621 (1966).

In the course of their research on ion-molecule reaction kinetics carried out in the research laboratories of Esso (now Exxon), Professors Field and Munson in 1965 made the first mass spectrometric verification of the reactions of ions from methane with added trace compounds. They recognized that the characteristic product ions formed in such ion-molecule reactions could be used to identify the additive molecules, and further, that such spectra had the advantage over ordinary electron ionization spectra in that the identification could be based on only a few peaks. Munson and Field proceeded to develop a new analytical technique based on the observation of product ions from ion-molecule reactions, which they called chemical ionization.

After its introduction, chemical ionization mass spectrometry was quickly recognized as a valuable new technique, a technique which is still widely used to solve analytical problems in industrial, governmental, and academic laboratories throughout the world. Chemical ionization was the first of the "soft ionization" techniques, which have repeatedly revolutionized mass spectrometry. As such, chemical ionization dramatically extended the information that mass spectrometry could provide and the range of sample materials to which mass spectrometry could be usefully applied.

Frank H. Field

This is the seventh ASMS Award for a Distinguished Contribution in Mass Spectrometry. The awardees will receive a cash award and a recognition plaque. The award presentation is 7:30 PM, Thursday followed by lectures by Professors Munson and Field.

Previous Award Recipients:

1990 Ronald D. Macfarlane, *Plasma Desorption Ionization*

1991 Michael Barber, *Fast Atom Bombardment Ionization*

1992 John B. Fenn, *Electrospray Ionization*

1993 Christie G. Enke and Richard A. Yost, *Triple Quadrupole Mass Spectrometer*

1994 Donald F. Hunt, *Negative Ion Chemical Ionization*

1995 Keith R. Jennings, *Collision Induced Dissociation*

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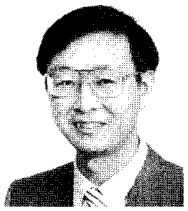

Xue-jun Tang
Albert Einstein College of Medicine