

The American Society for Mass Spectrometry

proudly announces the selection of

Donald F. Hunt

as recipient of

the 1994 Award for Distinguished Contribution to Mass Spectrometry



The ASMS Award for a Distinguished Contribution in Mass Spectrometry recognizes a focused, singular achievement that significantly changes the practice of mass spectrometry. Prof. Hunt is acknowledged for his pioneering work in the development and application of negative ion chemical ionization (NICI) mass spectrometry, which was published as "Pulsed Positive Negative Ion Chemical Ionization Mass Spectrometry", *Analytical Chemistry*, **48**(14), 2098, 1976 and "Electron Capture Negative Ion Chemical Ionization Mass Spectrometry", *Analytical Chemistry*, **50**(13), 1781, 1978.

Building on fundamental studies, Hunt early on recognized the analytical potential of negative ion formation of small organic molecules. The Hunt group first (1976) developed and demonstrated a method of simultaneously recording positive and negative CI mass spectra, and observed that NICI yielded significantly increased ion current and

unique structural information. Importantly, he also noted that enhanced detection sensitivity could be achieved for many organic molecules by derivatization to yield species with increased electron affinity. Hunt then (1978) applied derivatization schemes and NICI to the analysis of drug molecules at femtogram levels. Hunt's development and demonstration of the analytical utility of electron capture NICI mass spectrometry has had a dramatic impact. His research yielded a technique that is a standard feature on commercial analytical mass spectrometers and a methodology that is widely used in the pharmaceutical industry, analytical toxicology and environmental analyses for the detection and quantitation of trace levels of a wide variety of organic molecules including drugs, drug metabolites and environmental contaminants.

This is the fifth ASMS Award for Distinguished Contribution in Mass Spectrometry. The recipient receives a \$3,000 cash award and a recognition plaque.

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*

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