

Red River Valley Local Section American Chemical Society Next Meeting

Friday, 13 November 2009 in Grand Forks

Speaker : Ramon M. Barnes, ICP Information Newsletter, Inc.

University Research Institute for Analytical Chemistry

Location: Abbott Hall Room 138 University of North Dakota.

- ▲ 17:00 - 17:30 Social gathering:
5:00 - 5:30 PM
- ▲ 17:30 - 18:35 Presentation:
5:30 - 6:45 PM
- 19:00 Dinner: Location to be announced.
7:00 PM
- ▲ *Executive Committee meeting to follow.*

Speaker's presentation:

- Childhood Lead Poisoning: New Analysis Methods by Inductively Coupled Plasma Mass Spectrometry(ICP-MS).

The specific identification of sources of lead poisoning in infants and toddlers, especially those living in cities, is valuable in selecting appropriate lead exposure prevention and abatement procedures. Improved, novel analysis techniques have been devised, and their background, development, and test results will be described. The determinations of lead concentrations by isotope dilution analysis and isotope ratios in blood, dust, paint, and soil are accomplished by ICP-MS in separate procedures lasting about 5 minutes each. Sample preparation techniques, method verification, representative case studies, and identification of in vivo lead-bound species also will be discussed..



● **Biographical Sketch.**

Ramon Barnes is director of the University Research Institute for Analytical Chemistry, Professor Emeritus of Chemistry at the University of Massachusetts, editor of the ICP Information Newsletter (1975-), and chairman of the Winter Conference on Plasma Spectrochemistry (1980-). He received a Ph.D. in analytical chemistry from the University of Illinois, Champaign/Urbana, in 1966, an A.M. in chemistry from Columbia University, New York, in 1963, and was a post doctoral research fellow at Iowa State University, Ames, in 1968 and 1969. He served as an Army Captain at NASA Lewis Research Center, Cleveland, from 1966 to 1968.

From 1969 to 2000 he taught analytical chemistry and maintained an international research program at the University of Massachusetts, Amherst. He has published more than 300 papers, edited four books, and continues an active research interest in fundamentals and applications of inductively coupled plasma (ICP) discharges for spectrochemical analysis. The University Research Institute for Analytical Chemistry (URIAC) is the research and development division of ICP Information Newsletter, Inc., a not-for-profit corporation established in 1997 to foster science education, research, and study in spectroanalytical chemistry. URIAC provides specialty plasma spectrochemical analysis, method development, training, consulting, and applied research with ICP atomic emission spectrometry and ICP mass spectrometry for ultratrace metal and stable isotope analysis, method development, training, consulting, and applied research with ICP atomic emission spectrometry and ICP mass spectrometry for ultratrace metal and stable isotope analysis in environmental forensics, drug development, medicine, public health, and semiconductor manufacturing.