



American Chemical Society

Central Wisconsin Section



## "Analysis of Cannabinoids in Physiological Fluids"

by

Dr. Joe A. Vinson

The University of Scranton

Tuesday, April 16, 2002

7:30 PM Science Building, *Trytten Lecture Hall*. Room A121

UW – Stevens Point

5:30 Mixer & Dinner, Michele's Restaurant

### Abstract:

Illegal marijuana use in the U.S. creates both social and health problems. The detection and quantitation of marijuana in physiological fluids represents a major challenge to the analytical chemist. Cannabinoids are a group of compounds that represent the physiologically active ingredients in the cannabis or marijuana plant. The concentrations of these compounds vary greatly depending on the genetic history of the plant and on its geographical location. When the marijuana is consumed by humans, the cannabinoids are rapidly metabolized. The low concentrations of the cannabinoids and their metabolites in physiological fluids present a major problem to the analytical chemist. In addition, the presence of other natural physiological compounds with the same functional group requires a selective analytical method. The currently available analytical techniques will be reviewed. These will include gas-liquid chromatography, electron spin resonance, mass spectroscopy, high pressure liquid chromatography, and immunoassays. The author's work on the use of thin-layer chromatography will be described.

### The Speaker:

Dr. Joe Vinson was born in Arkansas and grew up in the San Francisco Bay area. He attended college at the University of California at Berkley, where he received his B.S. in chemistry in 1963. He received a M.S. degree (in physical organic chemistry) at Iowa State University in 1966. He received a research assistantship at the Ames Lab of the Atomic Energy Commission at Iowa State and received a Ph.D. in organic and analytical chemistry in 1967 under the direction of Dr. James Fritz. After several teaching positions in Pennsylvania and a two-year stint in industry at J. T. Baker Chemical Company, he returned to academe and is now a professor of chemistry at the University of Scranton in Northeastern Pennsylvania. His research interests are wide-ranging and include drug analysis in physiological fluids and the effect of vitamins, minerals, and antioxidants on nutrition and health.

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Prior to the meeting, a 5:30 PM mixer and dinner will be held at Michele's Restaurant, 513 Division St. (Business 51 North, adjacent to UWSP campus). *After dinner, drive three blocks east on Fourth Avenue to reach Parking Lot X on campus. The Science Building is adjacent to the lot and the Trytten Lecture Hall is just inside the main entrance.* **Reservations may be made by calling Marv Lang at 715-346-3609 (or email [cmlang@uwsp.edu](mailto:cmlang@uwsp.edu)) by 5 PM on Monday April 15.**