



Sigma-Aldrich/Fluka Technical Seminar

“Understanding Karl Fischer Titration”

October 30, 2009

Location: SAFC
SAFC Carlsbad Training Room
6211 El Camino Real
Carlsbad, CA 92009

Time: 10:00 am – 1:00 pm

Lunch provided

Free Registration – 9:30 am

The Karl Fischer titration is the most versatile and generally accepted analytical method for determining water content. It is independent of the sample's state of matter and is therefore suitable for the analysis of solids, liquids, and gases. Critical to the accurate determination of water content is that the sample be soluble in the solvent mixture, the working pH of the system is not affected by the sample, and side reactions are avoided.

This seminar addresses the development and principles behind Karl Fischer analysis, the differences between the volumetric and coulometric approaches to water determination, good lab practices and proper technique, modifications to improve solubility, maintaining proper pH control, and problematic functional groups and the specialty reagents that allow for their analysis. Use of various standards to verify that the system is functioning properly and the benefits of routine maintenance will also be discussed.

Questions are always welcome and will be encouraged throughout the seminar.

Speaker: Doug Clark

Doug Clark began his career in August of 1988 with Sigma Chemical Company in their Biological Buffers manufacturing facility. In addition to gaining experience in a large-scale chemical manufacturing facility, this was his first exposure to Karl Fischer. In 1997 Sigma-Aldrich Corporation entered into a joint venture with Allied Signal to purchase their Laboratory Chemicals division of Riedel -de Haën. In September of 1997, Doug transferred to the HYDRANAL® Technical Center as a Lab Technician working with Matt Cerutti. After a short while, Doug's position was changed to Technical Service Representative. In November of 1998 Doug assumed sole responsibility for the daily operation of the Technical Center. Doug has had the privilege to work with, and learn from, some of the world's leaders in Karl Fischer such as Mrs. Helga Hoffmann, Dr. Katrin Schöffski, and Mr. Thomas Wendt. Doug is based at the world headquarters of Sigma-Aldrich in St. Louis, Missouri.

To register for this seminar, visit sigma-aldrich.com/analytical-seminars

For more information contact:

Rick Link – Phone #858-481-8440, or rick.link@sial.com

Michael Monko – Phone #877-787-4437, Ext. 5714 michael.monko@sial.com