



CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

MONTHLY PROGRAM MEETING

CTLGROUP, 5400 OLD ORCHARD ROAD, SKOKIE, IL 60077 (MAIN SITE)

FRIDAY, FEBRUARY 16, 2018

“Concrete chemistry, secrets to a modern day construction marvel”

Mr. Don Broton

Principal Scientist, Material Laboratory Services, CTL Group

ABSTRACT: Don Broton will present a talk on cement and concrete chemistry. The news constantly reminds us that our infrastructure is in need of repair. Much of the infrastructure utilizes concrete, a most under recognized building material for the general public. We walk on it, drive on it, take off and land on it, and it forms the very foundation that most structures are built on. Portland cement is the glue that holds the rocks and sand together in a formable high strength concrete product. This presentation will be an overview of cement and concrete chemistry and the analytical techniques used for cement production and their use in failure analysis.

BIO: Mr. Broton has been analyzing cement, concrete, mortar and related geological materials for over 30 years. Mr. Broton has used laboratory services to help buyers and sellers of product settle disputes related to composition or performance issues. Mr. Broton has recently certified 22 cement, limestone and silica fume Standard Reference Materials (SRMs) now available from the National Institute for Standards and Technology. Mr. Broton has instructed courses at the Portland Cement Association including Basic Concrete, Advanced Concrete, Troubleshooting Concrete Field Problems, X-ray Fluorescence and the Kiln Course. Mr. Broton is responsible for using research grade XRF and XRD instrumentation for crystalline silica applications, small spot analysis using monocapillary optics and complete crystal phase analysis.

PRE-DINNER ACTIVITY:

Laboratory Tour: Materials Testing Labs, Petrography Labs and Concrete and Mortar Labs

PROGRAM: 5:30 - 6:30 P.M. Registration, Social hour
5:45 - 6:30 P.M. Laboratory Tour: Materials Testing Labs, Petrography Labs and Concrete and Mortar Labs
6:30 - 7:30 P.M. Dinner
7:30 - 7:45 P.M. Announcements
7:45 - 8:45 P.M. Presentation by Don Broton

LOCATIONS

*Roosevelt University – CTL Group (Main site),
UIC, Chicago (Remote),
College of Lake County Southlake Campus (Remote),
Purdue Univ. Northwest; Hammond, IN (Remote)
North Central College, Naperville (Remote)*

Cost: Dinner: CTL Group, UIC, and College of Lake County, \$15 ACS and AIChE members, \$17 non-members; Register by noon Monday, 12th February;

North Central College, Naperville and Purdue University Lecture only, but register by noon Thursday, Feb 15.

Lecture is Free (please register in advance)

For more information and for registration information please visit at <http://chicagoacs.org/meetinginfo.php?id=128>