

# AIChE Chicago February Meeting Notice



## “Fluorescent Tagged Polymers Used in Industrial Water systems”

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**Date:** February 20, 2008

**Schedule:** 5:30-6:30 pm Social & Registration  
6:30-7:30 pm Dinner  
7:30-7:45 pm AIChE Announcements  
7:45-8:30 pm Presentation

**Location:** Holiday Inn Select  
<http://www.naperselect.com/>  
1801 N Naper Blvd  
Naperville, IL 60563  
(630) 505-4900

**Cost:** Members - \$35  
Unemployed Members - \$15  
Non-Members - \$40  
Students - \$5

**Dinner Choices:** Salmon, Chicken Scaloppini, Roast Sirloin of Beef,  
& Portobello Wellington (veggie) with Bread Basket,  
Salad, Fresh Vegetables & Eli's Chicago Cheesecake!

### Presentation Summary

Fluorescent tagging for improved process control is an approach that Nalco introduced three years ago to provide dosage control for process chemical additives used to reduce corrosion, fouling, and biological activity in water systems. Nalco named this new family of products: **3D TRASAR**. This technology involves the use of fluorescent polymers that are designed so that they are consumed at the same rate as the chemical additives being used in a process. The fluorescent tagging makes it possible to determine the amount of chemical active in the system by measuring the amount of fluorescent compound in the system using optical systems. The dynamics of the process change continuously and the amount of process chemicals needed must also be adjusted due to these changes. Consequently, being able to quickly assess the amount of active process chemicals in the system and optimize the additive flow makes it possible to improve the use of process chemicals. The more effective system monitoring minimizes the cost of process chemicals and also minimizes the corrosion, fouling and biological activity in the system. The author will describe the history of **3D TRASAR** development and provide several examples of industrial applications.

### **Biography:**

Walter Schaefer received his Bachelor of Science degree from West Point in 1975, and after graduating he served in Army Air Defense Artillery and was stationed in Germany and the US. After military service he began working for Nalco in 1980. From 1980 till 1985 he worked in Nalco's Basic Industry Group which serves the Refining, Pulp & Paper, and Municipal industries. In 1985 he switched to Nalco's Utility Chemical Group serving the electric power generation industry in both fossil and nuclear facilities. In 1997 he transferred to Nalco's UNISOLV division where he worked as a district manager and a product manager. Then in 2001 he transferred to sales and worked with the Specialty Division Marketing, and in 2002 he began working exclusively on the development of 3D TRASAR technology. He is now a Technical Consultant for the Chemical Process Industry Strategic Business Unit for Nalco. He has presented papers at the Industrial Water Conference and published in Industrial Water World. He is married has two children and three grandchildren.