

## **27c Informatics Implementation in Exxonmobil Chemical Company**

*Robert J. Wittenbrink*

High throughput experimentation (HTE) is an important, rapidly expanding technology that will impact the way research is done in the chemicals industry. The ability to conduct 100s and even 1000s of experiments a day generates a large amount of data. The ability to manage and analyze these very large data sets in an efficient way becomes critical to the success of the HTE programs. Further, the ability to relate data generated in HTE experiments to data generated in conventional, or non-HTE, applications is a critical step in making full use out of HTE programs. In order to achieve full benefit of HTE, we have begun the broad implementation of an informatics system across our entire technology pipeline within ExxonMobil Chemical Company. The system will enhance the way we design experiments, automate our experimental equipment, and capture data from multiple sources. It will also improve our capability to visualize data in multiple dimensions and analyze the results. The vision is that ALL of our data... from HTE tools, lab tools, small and large pilot plants...will be captured, stored, and integrated such that it can be retrieved for analysis from a single point. The use of this system will allow us to extract key learnings and turn data into useful information - Informatics.