



Electrolyte Chemistry Analysis Capabilities *in Industrial Process Simulators*

ABSTRACT

Industrial process simulators typically have rudimentary electrolyte and water chemistry simulation capabilities. They lack the in-depth activity predictions for electrolytes and water that OLI has in its simulation models. Since electrolytes in water can dramatically affect industrial processes through oxidation, reduction, neutralization, scaling, fouling, corrosion, etc., it is important to understand and characterize their behavior accurately. OLI has spent almost five decades modeling electrolytes in water and developed very rigorous and accurate models including heuristics to solve highly non-linear equations as well as phase separations.

In this episode, OLI's Vice President of Client Support and Application Engineering, Jim Berthold will discuss details of how the OLI electrolyte chemistry simulation technology is integrated with various industrial process simulators including Aspen Plus/HYSYS, Aveva PRO/II, gPROMS, Honeywell UniSIM, KBC Petro-SIM, SysCAD. The software integration is typically accomplished with an OLI interface program to access the OLI Engine while the process simulators also provide their portion of the interface. OLI's approach is simulator neutral and typically provides the same type of thermodynamic data back to each simulator.

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