



Accelerate process modeling insights for Industrial Water Treatment with the new OLI Platform V10

28 New Enhanced Capabilities	4 Solution Areas	4 Water Treatment Application Categories
<ul style="list-style-type: none"> • 6 new chemistries • 8 new software features • 14 software quality updates 	<ul style="list-style-type: none"> • Sustainability • Compliance • Corrosion Prediction • Scale Prediction 	<ul style="list-style-type: none"> • Metal Removal • Produced Water Pre-treatment • Toxic Contaminant Removal • Ion Exchange • Utility Water

Boost Operational Efficiency, Reliability, and Compliance

Better predictions with new chemistry and expanded property predictions

- ✓ Improved **Scale Prediction** of fouling minerals
- ✓ New methods to reconcile inorganic carbon, alkalinity, and **TDS**
- ✓ Expanded database that includes natural organic matter and metal-organic complexes
- ✓ New chemistry modeling around selenium and arsenic

Optimize design and accelerate productivity with software created for water treatment






- ✓ Streamline data input and unit specifications makes for faster and simpler process design work
- ✓ Expanded properties list (TDS, Hardness, pH@25C) enables a more thorough interpretation
- ✓ Improved modeling of R/O, settlers, reactors, and virtual streams expands the range of water treatment design

Mitigate risk and enhance compliance with software enhancements

- ✓ Effectively model **contaminant** removal through first-principle separation mechanisms
- ✓ Model the fate of toxic elements using oxidation-reduction, adsorption and ion exchange
- ✓ More effective **stripping** and **scrubbing** operations; better **compliance** with regulations



Highlights of OLI Platform V10 applications in Industrial Water Treatment

Metal Removal	Produced Water Pre-treatment	Toxic Contaminant Removal	Ion Exchange	Utility Water
				
Removal of Co, Pb, U, Cu, Ni	Degasifier system, warm lime softening, acid treatment	Elimination of selenium, arsenic, struvite, phosphorus	Selectivity of divalent ions, Dowex ion exchange, regeneration	Cooling towers scaling, corrosion; water softening

New chemistries and software features in OLI Platform V10

<i>New chemistries and data parameters</i>	<i>New and enhanced software features</i>
<ul style="list-style-type: none"> Iron carbonate complexation Humic, fulvic, tannic and gallic acids Selenium, arsenic, and phosphate 	<p>OLI Flowsheet: ESP</p> <ul style="list-style-type: none"> Ionic input of species RO unit operations Enhanced multistage column specifications Faster calculations: larger model handling capability Hardness, TDS, and pH calculation at standard conditions Virtual streams, and easier upfront unit configuration Recycle selection tool Call out property for at-a-glance insight <p>OLI Studio</p> <ul style="list-style-type: none"> Hardness calculation reported as liquid property Option to enable TDS as a rigorous calculation Updates to corrosion in high CO₂ concentrations

Key Reasons to choose the OLI Platform for water chemistry simulations

- **Accurate corrosion** predication for a broad range of materials, conditions
- Accurate **desulphurization** simulation to ensure regulatory compliance
- Accurate, sustainable **industrial water treatment insights**
- Accurate **mineral scaling prediction** for a broad range of conditions
- Most versatile and flexible **simulation software** platform
- Proven capabilities across 500+ global deployments
- **Cloud and Digital Transformation** Roadmap

Learn more about OLI Platform V10

