

## Dr. Stoyanov

Dr. Stoyanov is a Senior Research Scientist at Natural Resources Canada, CanmetENERGY Devon. He leads a project on the development of solidifiers for the containment and recovery of accidental oil spills on water. He also develops a new process for treating water-in-diluted bitumen emulsions, aiming to reduce the energy use and greenhouse gas emissions associated with bitumen recovery. Moreover, he conducts research in chemometrics, and computational chemistry modeling and simulations for applications in tight oil recovery, non-aqueous extraction of bitumen from oil sands, lignocellulosic biomass characterization, and advanced materials. His Doctorate was in the modeling of photosensitive compounds for solar cells from Wichita State University, Wichita, Kansas. In his first postdoc at the University of Illinois at Chicago, he studied metal-doped carbon nanocones, fullerenes, and nanotubes for energy harvesting and catalysis. In his second postdoc at the National Institute for Nanotechnology (NINT), he modeled the hydrotreatment of heterocyclic compounds on activated zeolites. Subsequently, as a Research Officer at NINT he developed a broad computational research program for the rational design of solvents for bitumen recovery, catalysts for bitumen upgrading, hydrophobic grafts for cellulose nanocrystals, and junctions for molecular electronic devices.

