Membrane Separation

The Minerals business unit has undertaken a significant amount of work on membrane separation technologies including nanofiltration, microfiltration, ultrafiltration and reverse osmosis. This work has involved a wide variety and diverse type of feed solutions.

We have considerable expertise in working with different membranes and have access to both laboratory flat sheet apparatus and a commercial scale spiral wound membrane pilot plant. In all these projects, the recovery of permeates and concentrates have been demonstrated under different conditions.

We understand what it takes to produce and analyse a variety of solutions, and acquire data to scale-up from the laboratory to an industrial size plant.

We have successfully applied our considerable hydrometallurgy experience to develop alternative economic processes using membrane separation technologies. We have conducted a significant amount of process modelling and scoping level engineering developing detailed process models using Ideas™ followed by techno-economic evaluation of processing options. These efforts have directly supported several NI 43-101 reports and preliminary and definitive feasibility studies.

About ANSTO's minerals experience

ANSTO has a 40-year track record of providing practical solutions and innovative technology to the mining and minerals processing industries. We have a team of 60+ dedicated professionals and technicians with expertise covering chemical engineering, metallurgy, mineralogy, chemistry, geology and radiation safety working within the Minerals business unit.

We provide process development services, technical review and consulting services, as well as collaborative and contract research on uranium, rare earth and specialty metals processing, radioactivity control and management, novel flowsheet design and modelling, and scoping level engineering / cost estimates.

Contact

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