



Nanostructures for the Future

CMC partners with TR Labs and the Synchrotron on a proposal for the development of a world-class nanotechnology facility

“CMC has already provided valuable support to the Canadian Synchrotron Nanostructures Facility initiative. There are many opportunities for CMC to continue playing an important role. This includes contributing to the development of a longer-term strategy that aims to provide Canadian researchers with access to XRL (X-ray lithography) capabilities.”

Dr. David Klymyshyn
TRLabs Scientist
Associate Professor
Electrical Engineering
University of Saskatchewan



Dr. Bill Thomlinson, Executive Director of the Canadian Light Source (CLS), takes the Honourable Ralph Goodale, Minister of Finance, on a tour of the facility on April 6, 2004.
PHOTO: Canadian Light Source Inc., University of Saskatchewan

Canada is a world leader in micro-nano technologies and Dr. David Klymyshyn wants to keep it that way.

The TR Labs researcher is working with the University of Saskatchewan—and CMC—to develop a research program in micromachining and MEMS at the new Canadian Light Source Synchrotron (CLS), which officially opens at the university in October 2004.



Dr. David Klymyshyn, TR Labs Scientist, is working with partners such as CMC on the proposed Canadian Synchrotron Nanostructures Facility (CSNF).

Growing out of the Canadian Light Source Facility, the proposed Canadian Synchrotron Nanostructures Facility (CSNF) would be a first for Canada, providing researchers with tools to design and manufacture devices into the nano-scale.

“The Canadian Synchrotron Nanostructures Facility would be used by a large and multidisciplinary research community of engineers and scientists—many of whom are currently supported by CMC—to advance research in micro-nano structures, systems, and technologies,” says Dr. Klymyshyn. “These are areas of intense worldwide investment that support rapidly growing, multi-billion dollar industries in various application fields, including telecommunications, aerospace and medicine.”

The CSNF will be dedicated to synchrotron deep X-ray lithography (XRL), which is essential to achieve advanced capabilities in micro-nano structuring. CMC supplied important data to the CSNF team on Canadian research in this field. If the proposal is successful, CMC could coordinate access to XRL/LIGA, a process that enables the production of three-dimensional structures with high accuracies and high aspect ratios. *cmc*