To understand the reliability of materials and how well they can perform, it is critical to analyze their surfaces. To accomplish this task, many companies approach The University of Western Ontario's Surface Science Western (SSW), the most comprehensive surface analysis laboratory in Canada.

**What is Surface Science Western?**

Established in 1981, SSW is a very highly regarded, full-range research and development consulting and research laboratory specializing in the analysis and characterization of surfaces and materials. The facility supports academic and industrial clients who are looking for technological innovations in this area.

With more than 250 people-years of experience and unparalleled interpretative skills, SSW’s researchers provide exceptional service to clients in many industry sectors, including energy and nuclear, mineral resources, health services, automotive, aerospace, environmental and electronics. Using cutting-edge surface and analytical techniques, the team helps businesses that produce metallic and plastic components analyze and evaluate the surfaces of their materials and understand why these surfaces might fail. More than 200 companies solicit their services annually.

**Research and Facilities**

With state-of-the-art instrumentation such as surface profilometry, dynamic secondary ion mass spectrometry and scanning electron microscopy with energy dispersive X-ray capabilities, SSW’s researchers are experts in a number of areas ranging from the analysis of paint defects and thin films to polymer surface modification. They are also engaged in projects that involve:

- Surface characterization and failure analysis
- Corrosion science and electrochemistry
- Process simulation and development
- Studies of surface chemistry for mineral processing
- Post-analytical processing studies
- Photomasks and circuit boards
- Electronic device analysis
- Nuclear materials analysis

**Highlights**

- Researchers at SSW are intimately involved in research and development projects with leaders in the communications, automotive, energy, health, mining and consumer goods industries.
- Scientists at SSW are academic researchers as well as industry consultants, having produced more than 500 publications in the field of materials and surface analysis and obtained numerous patents annually.
- SSW is the first Canadian-based materials research centre to obtain the highest level of quality accreditation.
- SSW research and development and analytical services operations are certified to International Organization for Standardization (ISO) 9001:2008.
- Corrosion and metallurgy, polymer chemistry, microelectronic materials and catalytic reactions are the facility’s research strengths.
- SSW is able to service a range of clients from very small to very large manufacturing facilities, using a broad range of resources and analytical techniques.

For more information, please visit: [www.uwo.ca/ssw/](http://www.uwo.ca/ssw/)

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*In addition to academic research, Surface Science Western provides high-quality, reliable analytical services to facilitate development and production, decrease costly returns, innovate processes and increase profitability.*