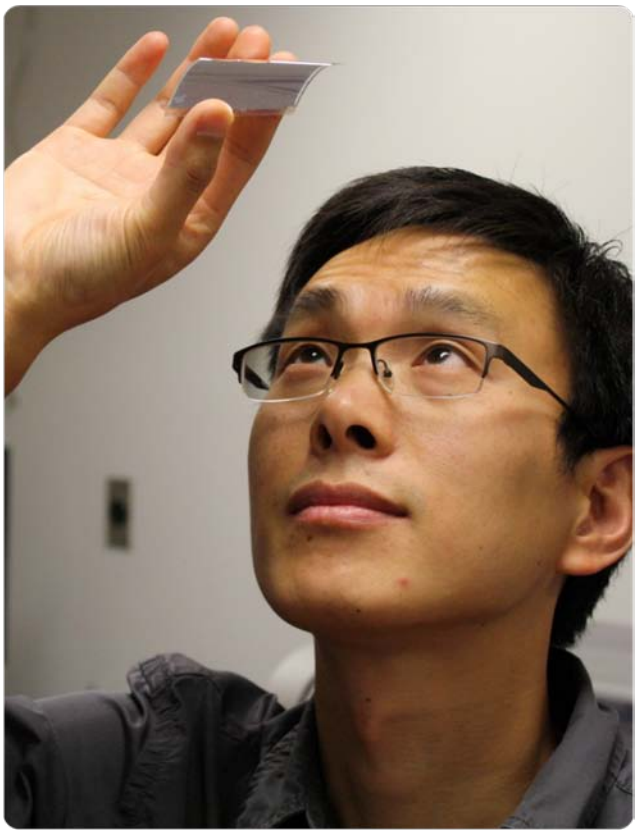
Electronic Materials & Devices

The Xerox Research Centre of Canada is a pioneer in designing and demonstrating electronics-grade materials and devices. Enable your next project with our expertise.



What We Offer

The Xerox Research Centre of Canada specializes in molecular synthesis, materials scale-up, and integrated device testing. We have the resources and facilities required to build and assess the performance of new electronic materials and devices.

Printed Electronic Materials

XRCC has a long history in developing charge transport materials. Our most recent success has been the development of a benchmark materials package for printed electronics. We currently offer materials and inks for organic semiconductors and matching dielectrics, and conductive nanoparticles. Our team of experts can provide the full value-chain for electronic-materials innovation from materials design and synthesis to device fabrication and testing in real world conditions.

Scale-up of Electronic Grade Materials

Through our expertise in delivering core Xerox technologies, we have the experience and facilities that can take your materials innovation to the next level. We offer process development for electronic materials from lab to pilot scale.

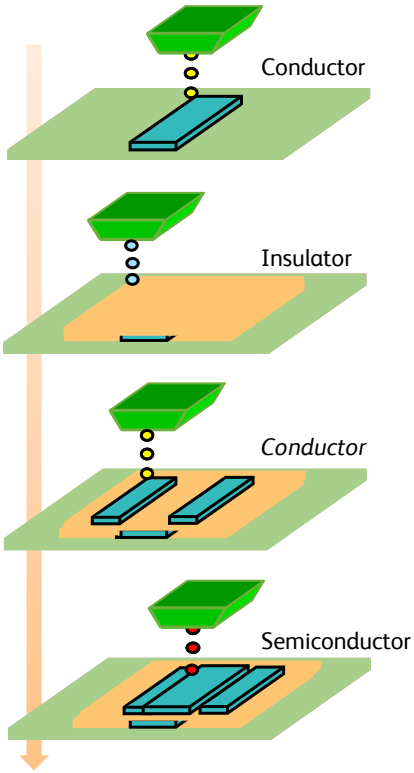
Example: Electrographic Photoconductor Technology

Since its inception in 1974, the Xerox Research Centre of Canada has delivered high-performance electronic materials and devices. We are world leaders in developing high-sensitivity photo-conductive pigments and charge transport materials, and integrating these key materials into commercialized, multilayer photoconductor devices.

Electronic Materials & Devices

What we offer

- Supply enabling electronic materials:
  - Photoconductive pigments
  - Charge transport materials
  - Organic semiconductors
  - Metal nanoparticles and inks
  - Matching interface materials
- Scale-up and process development for electronic grade materials
- Materials Integration:
  - Multilayer device fabrication
  - Interface optimization
  - Morphology characterization
  - Device testing under practical conditions

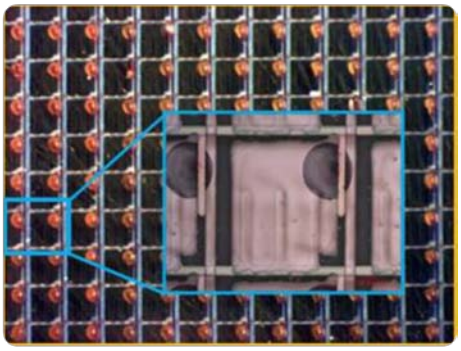


Materials Design and Scale-up

- Photoconductive semiconductors: molecular design, synthesis and scale-up
- Metal nanoparticles: design, synthesis and ink formulation
- Specialized materials processing: sublimation, polymorph conversion, and electronic grade organics purification
- Electronic device fabrication: liquid processing and vapour deposition of electronic materials for integration in multilayer electronic devices
- Electronic device evaluation: practical evaluation under real-world conditions

Integration and Testing

- Thin-film deposition: vacuum deposition systems for organic materials and metals; solution coating and ink-jet printing
- Thin-film characterization: surface profilometer, AFM, SEM with EDX, TEM, optical microscopy and X-ray diffractometer
- Device characterization: temperature controlled current/voltage, TOF charge transport and solar cell characterization
- Synthetic labs: bench to pilot-scale facilities for electronic materials synthesis and scale-up
- Materials purification: large-scale train sublimation and automated chromatography system



Engage us:

Patricia Hawkins
905.823.7091 x.350

Xerox Research Centre of Canada
2660 Speakman Drive
Mississauga, ON
Canada
L5K 2L1

engage@xeroxlabs.com

www.xerox.ca/xrcc