

# Green Materials and Processes

## Promoting Sustainability

The Xerox Research Centre of Canada is committed to maximizing sustainability and environmental responsibility in all of our materials and processes. We can help you achieve your green goals.



### What We Offer

If you have an idea for a new green product or want to improve the environmental footprint of your current material or process, we have the know-how to help you achieve your goals.

Give us a challenge...

### Materials Expertise

- Bio-renewable reactants, catalysts and solvents
- Recycled materials as feedstocks
- Functional materials operating with low energy input
- Low energy particle synthesis

### Process Technologies

- Solvent-free dispersions
- Solvent-free reactions
- Solvent-free electronic material purification
- Continuous-flow chemistry
- Microreactor technology
- Simplified purifications
- Printed organic electronics

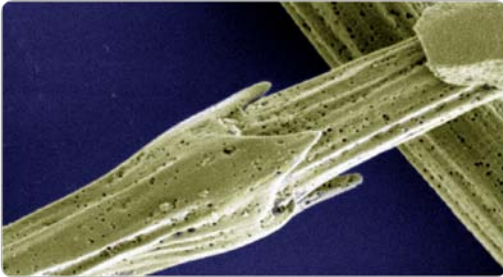
### Proof of Concept and Materials Evaluation

- Material design, synthesis and characterization
- Device design and fabrication
- Device testing and characterization

# Green Materials and Processes at XRCC

## Resources

- Expertise of Chemists, Chemical Engineers, and Technologists
- Lab and Pilot Plant facilities from gram to kilogram scale
- Model and machine shops for custom equipment and device fabrication
- Fully equipped analytical laboratories with access to major material and device characterization techniques



## XRCC Success Stories

- Ultra-Low Melt toner
  - Minimized printer energy use
- Solid ink technology
  - Cartridge-free design reduces landfill waste by 90 % compared to laser printing
  - 30 % bio-renewable content
- Solvent-free pigment, polymer, and oligomer dispersions
  - Eliminated hazardous solvent waste exposure and disposal
  - Removed energy intensive gas-liquid phase transitions
- Bio-based and recycled raw materials
  - Reduced reliance on fossil fuel-based material

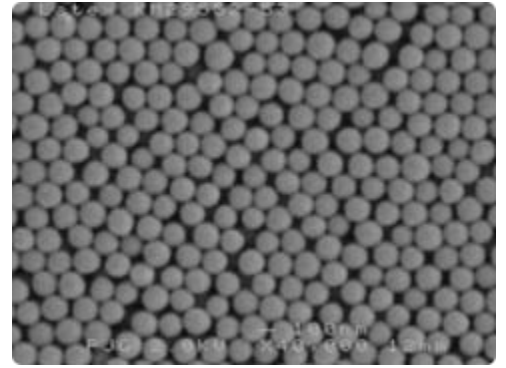
## Our Commitment to You

Develop your new green idea with us.

Life Cycle Analysis will be used to guide your designs and quantify the improvements made to the sustainability of your technologies.

Our projects are administered using the Lean Six Sigma methodology, ensuring that you will acquire rigorous, accurate and fast results.

We will be your partner in bridging the gap from green idea to green product.



## Engage us:

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