

## Technology Opportunity Bulletin

### Switchable Photochromic Materials

Tech ID: 2009-078

#### Description:

Researchers at Queen's University have developed a new class of photochromic materials that respond to the stimuli of light and heat with a large colour contrast. The colours of these materials can be switched between colourless and dark blue or dark green in a liquid. This group compounds also show potential as solid state photochromic switching materials (e.g. in a polymer matrix).

#### Features and Benefits:

- Sharp colour contrast
- Tunable colours
- Fast response with light and heat
- Fast switching between colours
- Mild reaction conditions
- Easy synthesis and modification of molecule structures
- Reduced costs

#### Applications:

This group of compounds may potentially be used in the following applications:

- Smart windows
- Photochromic coating/windows
- Sunglasses
- UV-protection devices
- Optical memory devices
- Innovative products

#### Status of Commercialization:

PARTEQ Innovations, the technology transfer arm of Queen's University, is currently seeking industrial partners willing to collaboratively develop or license the technology.

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