

U of T Chemistry News



Company started in U of T lab releases cutting edge anti-counterfeiting technology

July 18, 2018

by **Dan Haves**



André Arsenualt and Professor Geoff Ozin

Opalux, a company that grew out of a lab in the department of chemistry, has launched a new security feature that promises to make identification documents even more secure.

The company, which includes **André Arsenualt** (PhD, 2006) and Professor **Geoff Ozin** among its co-founders, has developed a product called MyImage that uses tunable photonic crystals to generate high-resolution, colour-shifting portraits in identification documents (passports, ID cards, drivers licenses) using laser engraving. These portraits are difficult to impossible to replicate.

Opalux's technology of tunable photonic crystals allow them to create responsive materials that change colour when exposed to a variety of stimuli, including electricity, chemicals, mechanical pressure and heat.

"This is going to be a blockbuster," says Ozin. "The potential use of this security feature on myriad products is simply enormous."

MyImage can be used on any polycarbonate document. As passport and identification credential issuers move away from paper and towards polycarbonate, the potential applications of MyImage will continue to increase. This technology would replace the

use of laminates, which are much easier to counterfeit.

“This is an exciting time. We knew from the start that we had something with great potential that would be attractive to investors and end customers, so it’s extremely validating to see this go to market,” says Arsenault.

Arsenault believes what gives Opalux the edge over other anti-counterfeit technologies is that it can be used with existing integration and laser engraving systems already in use by secure document producers.

Opalux created MylImage in partnership with De La Rue, the world’s largest high-security printer. The UK-based company provides paper and printing technology for over 150 national currencies and is the current producer of British and various other countries’ passports.

Arsenault is quick to remember Opalux’s roots at U of T.

“We feel very lucky to have had the support of U of T from the very beginning,” he says. “From the guidance of Geoff to the technology transfer group, there has been an amazing amount of energy and excitement coming out of U of T in support of this company.”

Arsenault expects MylImage to be commercially available sometime in 2019.

© Copyright 2018 Department of Chemistry, University of Toronto