DERISKING OF NANOINTEGRATED ODMR SYSTEM

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INVESTIGATOR

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DETAILS

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Abstract

The project aims the integration and miniaturization of optically detected magnetic resonance (ODMR) technology on silicon to bring it to a technological maturity level that enables mass production compatible with the semiconductor industry. This one-year quantum sensor project is dedicated to de-risking this challenging technology transfer venture by directly addressing potential major scientific roadblocks, such as the impact of nanofabrication on sensitivity and to assess the technology readiness for a full transfer from the lab to the industry. In addition to miniaturization, this project aims to achieve a significant increase in sensitivity compared to commercially available products. The conclusion of this project will have a significant impact on research partners and the quantum industry in Canada as a whole.