

**Artificial photosynthesis: Design materials to convert CO<sub>2</sub> into hydrocarbons**

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There is a great research interest in developing technologies that can replicate plant lead and convert CO<sub>2</sub> into useful hydrocarbon fuels. In this multidisciplinary, multi-group project we will design novel materials that can help in improving efficiency of this process using a computational materials modeling techniques. The student will be trained in state-of-art techniques to simulate these processes. The developed models will be compared against experimental data obtained from collaborating researchers at UofT. Basic physics and engineering background is required for the project.