Department of Chemistry Seminar Series Fall 2022

Friday, November 18, 2022, 3:30 PM - **HS1 O112 (Health Sciences)**
Host: Fernando Uribe-Romo

Tomorrow Materials for Hydrogen Production and Carbon Dioxide Reduction

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The necessity to develop clean and sustainable energy resources and to remediate to the problem due to greenhouse gases are imperative. Photocatalysis has proven to be an interesting solution to harvest the abundant and inexhaustible power of solar energy in the form of chemical bonds in hydrogen molecules and to convert the greenhouse gases into valuable chemical sources. Generally, molecular complexes are used as photosensitizers (PSs) and photocatalysts (PCs) to carry out such processes. At present, the major concern associated with HER and CRR is the preparation of novel and efficient molecular photocatalysts for the profitable production of H_2 and reduction of CO_2 respectively. In addition, efforts are being made to reduce the costs associated with the synthesis of the required ligands and their molecular complexes in these processes. Here we present the development of diaminotriazine based molecular catalysts for photocatalytic hydrogen production and carbon dioxide reduction.