

**CARLETON UNIVERSITY**  
Department of Mechanical and Aerospace Engineering  
PhD Comprehensive Exam and Thesis Proposal Defense

**CANDIDATE:** Marianna Vieira

**DATE:** Wednesday June 15, 2022, 2:00 p.m. Room 3324, Mackenzie Building

**THESIS TITLE:** **1-Phenyl-N-Naphthylamine Oxidation Reaction: Development of a Kinetic Model**

**EXAMINATION BOARD:**

**Member of Department** J. Liu, Dept. of Mechanical & Aerospace Engineering

**Member of Department** X. Huang, Dept. of Mechanical & Aerospace Engineering

**Chair of Defence** A. Ellery, Dept. of Mechanical & Aerospace Engineering

**Thesis Supervisor** R. Miller, Dept. of Mechanical & Aerospace Engineering

**Chair of Department** R. Miller, Chair, Dept. of Mechanical & Aerospace Engineering (*Ex-officio*)

**Dean of Faculty** L. Kostiuk, Dean, Faculty of Engineering (*Ex-officio*)

**Dean, Faculty of Graduate & Postdoctoral Affairs** P. Smith, Dean, Faculty of Graduate Studies and Research (*Ex-officio*)

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Jason Etele, Associate Chair, Graduate  
Department of Mechanical & Aerospace Engineering