

## ORAL DEFENCE ANNOUNCEMENT



# HALILOVIC DZENETA

## A PHOTOCHEMICAL APPROACH TO EXTENDED CORANNULENES

Corannulene is the smallest fragment of  $C_{60}$  still retaining its curved structure. Corannulene can be derivatized specifically and these derivatives show high solubility in a range of organic solvents. Aromatic extension of this bucky-bowl becomes easier with photochemical strategy developed and well-established by our group comparing to the known flash vacuum pyrolysis and metal-catalyzed processes for the annulation. The generality of this method opens the door for preparation of a wide range of polycyclic aromatic arenes as well as heteroarene structures. The photochemical approach for the aromatic extension will be discussed through the large family of extended bucky-bowls differing in their structure, functionality and consequently their properties.

**Date:** 2 November 2020  
**Time:** 3pm  
**Supervisor:** Prof Mihaiela Stuparu