

# ORAL DEFENCE ANNOUNCEMENT



## ZHANG ZHUANG

### Developing Synthetic Strategies and Studying Potential Applications of Buckybowl Corannulene Polymers

The bowl-shaped polycyclic aromatic (C<sub>20</sub>H<sub>10</sub>) hydrocarbon, corannulene, constitutes a recognizable motif on the curved surface of buckminsterfullerene (C<sub>60</sub>). Therefore, the scientific community has heavily investigated it for its structure and properties. The aim of this thesis is to examine corannulene derivatives as polymerization initiators and monomers to access novel polymers and study their properties and applications. Preparation of corannulene-based polymerization initiator is discussed, and linear polymers are synthesized successfully using atom transfer free radical polymerization method. In the other part, corannulene is used as a monomer in palladium-catalyzed Stille polycondensation process to access network geometry.

<b>Date:</b>	<b>14 Jan 2020</b>
<b>Time:</b>	<b>3.00 PM</b>
<b>Venue:</b>	<b>Meeting Room, Research &amp; Graduate Studies Office, Level 2, SPMS</b>
<b>Supervisor:</b>	<b>Asst Prof Mihaiela Stuparu</b>