

Chemistry 4000

Introduction to Inorganic Chemistry: The Different Perspectives of Bonding

Presentations on Tuning the toxicity of the essential metal copper for cancer therapy and diagnosis applications

Date of Presentation: May 1, 2024

Location: To be determined

Time: 5:00 pm – 7:30 pm

Presentation Guidelines

1. The presentations will be divided into lecture and question sections. Half of each team will be primarily responsible for offering the lecture and the other half of the team will be primarily responsible for answering questions but all members should assist one another where necessary. The **team must agree** on who will participate in which section and **must work together** in the construction of the lecture and review of the manuscript and course material (includes lectures **up to Thursday, April 25th**) to prepare for the questions. The **lecture section** will last **no longer than 20 minutes** and will be offered as a PowerPoint presentation. The **question section** will last **no longer than 10 minutes**.

2. The lecture section should include a formal introduction that provides the coordination chemistry context for the contributions made in your particular area of focus on the use of Cu(I/II) for cancer therapy and/or diagnosis. You are to then discuss the contributions to the specific field made by the team of researchers that is the subject of your review and provide an overview of the key experiments/data analysis/accomplishments from the primary literature. Please conclude with a personal reflection that assesses the accomplishments and any insight into future research directions. It is important that you implement course concepts into your presentation.

Suggested General Time Breakdown for the Lecture:

5 minutes- Introduction to the research focus and the relevant coordination chemistry

13 minutes- Discussion and analysis of the key experiments/accomplishments from the primary literature. Make sure to include data, structures, balanced chemical equations and, where relevant, mechanisms.

2 minutes- Concluding remarks

Guidelines for Participants Answering Questions:

The questions are not meant to be tricky and are simply an examination of your basic understanding of fundamental chemistry and any course concepts that relate to the research focus that you have selected. In past years, students have been asked to draw things on the board or write a balanced chemical reaction to illustrate something discussed in the presentation. If say your talk was about redox chemistry, then refresh your memory on how to determine the oxidation states. Each team will receive at least four questions. Two or more questions will be asked by me (which will be fundamental in nature), one will be asked by another team, and one will be asked by a panelist. It is important that all teams pay attention to all presentations because on the day of the presentation, I will select which team will ask another team a question.

3. You will be evaluated by a panel of evaluators for your individual contribution and for the overall team effort. **The team with the highest evaluation will win a prize.**

4. You will be able to present in Spanish and say key phrases/terms in English.

5. Presentation material may end up on the last exam.

6. **I need all presentations emailed to me by 5:00 pm on April 30th. At that time, I will also need to know who will offer the lecture and who will respond to questions.**