

# Re: Invitation to Virginia Tech Highlands in Chemistry, February 17, 2023



**Zadrozny, Joe**

Nov 28, 2022 at 4:30 PM

To: Kate Foiles

Cc: Gordon Yee, Santos, Webster

 photo (1).jpeg

 Quantum Mimicry-1.jpg

Dear Kate,

Thank you for this, I am very much looking forward to my visit! I have the info you requested below and a followup with Qs about logistics.

**Title:** Quantum mimicry: a new frontier in synthetic inorganic chemistry

**Abstract:** My group is a physical inorganic chemistry group devoted to understanding how to control spin (unpaired electrons or magnetic nuclei) with synthetic, molecular inorganic chemistry. Broadly, our efforts are largely fundamental, exploring how different functional groups, counterions, etc, all manipulate magnetic properties, much like a synthetic chemist would tune a molecule to target a desired reactivity. In this talk, I will provide a broad overview of these efforts, then focus on a larger goal of ours, which is a experimental realization of concept we call “quantum mimicry.” For this goal, we ask the fundamental question: “What are the molecular design criterion to realize an electron that will act (magnetically) like a nucleus, or a nucleus that will magnetically act like an electron?” We will present the results of our experiments to answer that question. The targets for our exploration of this new type of mimicry are transformative molecular imaging probes that convey physiological signatures that conventional (though incredibly powerful)  $^1\text{H}$  magnetic resonance imaging (MRI) is blind to. The importance of our results in this context will also be described.

**Graphical abstract:** please see attached (quantum mimicry-1.jpg)

**Pic of me:** please see attached

With respect to travel, what is the easiest/most typical way that speakers get there? Fly into roanoke and rent a car? Do you book flights/transit or is it customary for visitors to, then reimburse?

Thank you,

-Joe

**Joseph Zadrozny** (he/him/his)

Assistant Professor

**Colorado State University**

Department of Chemistry

1301 Center Ave., Campus Delivery 1872; Fort Collins, CO 80523-1872

Group webpage: <http://zadroznylab.colostate.edu>

Office: +1 (970) 495-4168  
Cell: +1 (540) 292-0713

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**From:** Kate Foiles <[katefoiles@vt.edu](mailto:katefoiles@vt.edu)>  
**Sent:** Monday, November 28, 2022 1:44 PM  
**To:** Zadrozny, Joe <[Joe.Zadrozny@colostate.edu](mailto:Joe.Zadrozny@colostate.edu)>  
**Cc:** Gordon Yee <[gyee@vt.edu](mailto:gyee@vt.edu)>; Santos, Webster <[santosw@vt.edu](mailto:santosw@vt.edu)>  
**Subject:** Invitation to Virginia Tech Highlands in Chemistry, February 17, 2023

**\*\* Caution: EXTERNAL Sender \*\***

Dr. Zadrozny,

Thank you again for agreeing to participate in the Virginia Tech Department of Chemistry's Highlands in Chemistry seminar series next semester. We are looking forward to your talk.

Attached you will find your official invitation which contains information on the seminar. Please let me know if I can assist in your travel arrangements in any way.

Please also send me the title of your presentation, a short abstract, a graphical abstract if applicable, and a picture of yourself at your earliest convenience.

If you have any questions, feel free to contact me or your host, Gordon Yee (cc'd).

Best,  
Kate Foiles

**Kate Foiles, Executive Assistant**  
Virginia Tech | Department of Chemistry



