

Portland Section Meeting

**Thurs. April 12**

## Chemical and Physical Considerations in the Production of Coffee

a talk presented by

**Prof. Christopher Hendon**

Department of Chemistry and Biochemistry, University of Oregon

**7:45 pm Thurs. April 12**

*Reed College Vollum Lounge*

*3203 SE Woodstock Blvd, Portland, OR 97202*

[map](#)

Dinner reservations

**Dinner reservation FIRM deadline midnight Monday April 9.  
Prices increase after deadline!**

*NOTE: On 1/21/18 the Portland Section Executive Committee approved a late reservation fee of \$15/\$25.  
Prices will remain \$10/\$20 until midnight of the Monday before the meeting. Prices increase after the  
deadline (including at the door)!*

*Schedule: 6:00 pm social • 6:45 pm buffet dinner • 7:45 pm talk*

*Coffee will be provided by a local roaster.*

*Upcoming events: [Science Expo](#) Judges needed*

Contact [Scott Vanderwerf](#) if you have questions

*(Bio/Abstract next page)*

## Chemical and physical considerations in the production of coffee

### Abstract

There are numerous chemical and physical variables that go into the production of a tasty cup of coffee. This talk aims to provide a general overview of coffee chemistry and physics that determine the flavor and reproducibility of the brewed product, while summarizing our early successes of applying mathematics, chemistry and physics to the fields of grinding and water chemistry.

### Bio

Christopher H. Hendon is a computational and experimental chemist with special interests in energy materials, applied physics and coffee extraction. He obtained his BSc. Adv. HONS from Monash University (2011) and PhD from the University of Bath (2015). After a two year postdoc at the Massachusetts Institute of Technology he joined the University of Oregon as an tenure-track Assistant Professor of chemistry where he heads a research group with interests in materials chemistry for energy conversion. Prof. Hendon's interest in coffee began during his PhD, and since then has published several peer-reviewed articles and a book, Water For Coffee. Dr. Hendon enjoys flat whites, washed African coffees, dry rieslings, east coast oysters and stimulating scientific problems.

---

## Judges Needed for upcoming Science Fairs

Stephanie Jones, Intel NWSE Fair Director, sends an urgent appeal for judges to ACS members, friends, students, and interested parties urging participation in upcoming fairs. Stephanie writes:

With the fair combining both Middle and High School projects, we have a much bigger need this year. If you have already registered to judge Friday April 13th, THANK YOU! Now I need you to recruit some friends. Carpooling makes parking a shared expense. Judge hours are 8am-3:15pm, in the Viking Pavilion at PSU. We are particularly short in the life science categories for high school. More are needed in every middle school category. If you would like to

## Local Entrepreneur featured in C&EN article

Dana Garves is the founder of Oregon BrewLab, a laboratory facility that provides an affordable, fast, and federally accredited testing service available to the fermentation industry. BrewLab offers precise and accurate analysis of beer, cider, wine, and mead to homebrewers, startups, and established facilities, regardless of size or budget. While running Ninkasi Brewing Company's laboratory and sensory program, Ms. Garves joined Civilians for Space Exploration Team and helped design a rocket payload to launch brewer's yeast, successfully, into space. She is active in outreach, holds QA/QC panels for the brewing community, and even created a beer science demo for OMSI (Oregon Museum of Science and Industry). She received her BS in Chemistry from the University of Oregon where she also received her love of craft beer.

Read the [article](#) about Dana in the March 5 issue of C&EN.

## Success with New Checkin Procedure

At the Feb. 15 meeting Treasurer Dave Reingold initiated a new procedure for attendee checkin and payment so he too could socialize during happy hour. It was a complete success! At the end of the evening the cash register balanced perfectly — all without any assistance!

---

be a head judge in a middle school category, please contact me.

I am also seeking high school students to judge middle school, there are at least two local districts with no school on April 13. Students can take advantage of a quick form located on <http://nwse.org/node/427>—this is a great option for those needing volunteer hours for National Honor Society.

The other need the fair system has is for assistance with travel expenses. It takes about \$1000 to fully fund one student's travel. Sponsorships with listings on the website and in the program are available at higher levels, but any amount helps. Go to <http://nwse.org/sponsorship> to donate.