ChE-607(2)

# Highlights in Energy Research : Characterization of materials for sustainable energy (2)

Queen Wendy Lee

| Cursus | Sem. | Type |
|---|---|---|
| Chemistry and Chemical Engineering | | Opt. |

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|---|---|
| Language of teaching | English |
| Credits | 1 |
| Session | |
| Exam | Term paper |
| Workload | 30h |
| **Hours** | **14** |
| Lecture | 14 |
| **Number of positions** | |

## Frequency

Every 3 years

## Remark

Every 3 years. Next time: Spring 2021

## Summary

This seminar series will invite leading researchers from academia, industry, or government agencies to give insightful talks on various appli-cations and devices that are meant to help achieve a sustainable energy landscape. Particular focus will be placed on the design and optimiza-tion of energy d

## Content

Highlights in Energy Research is a series of seminars that will take place at EPFL Valais Wallis in Sion weekly on Thursday from 4:00 to 5:00 pm. The aim of these events is to have presentations of the most important scientific achievements from all over the world in the aforementioned areas. There will be at least 7 seminars per semester from outside researchers, and when possible, additional presentations showing the most recent progress of the Professors and Scientists from EPFL will be included.
This will be highly beneficial for the PhD students in EPFL Valais Wallis, as the speakers will help the students broaden their professional horizons in various cutting-edge research topics. Furthermore, the students will have the opportunity to meet with the invited speakers; the aim is to encourage students to discuss their own research and also to promote fruitful discussions between the two. The invited scientists, will have expertise in applications coupled to:

- Gas storage,
- Fuel Cell technologies,
- Carbon Capture and/or Conversion,
- Liquid and gas separations,
- Batteries or other energy storage devices,
- Catalysis for chemical feedstocks and fuels,
- Engineering of energy systems,
- Process systems engineering,
- Photovoltaics,
- Materials scale-up.

The speakers will be invited to come at EPFL Valais Wallis in Sion each semester to give their talks. The speakers will visit labs in the morning and afternoon for individual discussions with students, postdocs, and/or faculty. The speaker will also be treated to lunch with students. In the afternoon, each speaker will give a 45-minute presentation, followed by a 15-minute question session, and then dinner. The invited speakers and talk titles will be announced at the beginning of each semester on the website.
Each student must attend the seminar series. Each semester, there will be at least 7 hours of lecture from outside speakers and up to 14 hours of practical work per semester to obtain 1 ECTs credit. At the end of the semester, the students are required to deliver a report of the seminars summarizing the most important topics, with references, and give a critical assessment of what they learned. This must be turned in within two weeks of the semester end to receive credit

## Learning Outcomes

By the end of the course, the student must be able to:

- Present topics learned
- Implement own work in global context

## Assessment methods

2021: written report

## Resources

### Websites

- http://Energy research, seminar series, materials chemistry and design, syn-thesis.