



In today's seminar

Topics	By who
Introduction to the seminar series	Audun
Recent chemistry from each research group - a round of short introductions (approx. 5 min from each group)	
Presentation: <i>Planning experiments using Electronic Lab Notebook</i>	Audun
Presentation: <i>How to draw nice chemical structures and use SMILES efficiently in ChemDraw</i>	Bård
Closing summary, idea session for new topics and a look at what is planned for the next seminar	Audun

Seminar - Why, what and how?

Why?

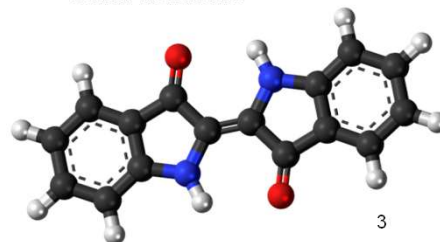
- Arena to bring everyone together!
 - We are 40 organic chemists at the department
- Different chemistry but similar challenges
- Sense of belonging
 - You might not need it, but someone else might

What?

- Sharing of chemistry
- Guest lectures
- Practice your presentation before a conference
- Laboratory techniques, hacks and bodes
- Short tutorials
- Kringle (cake 🍰), coffee and talking to colleagues

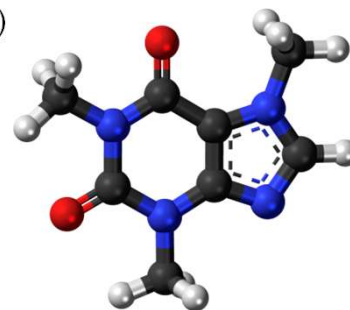
How?

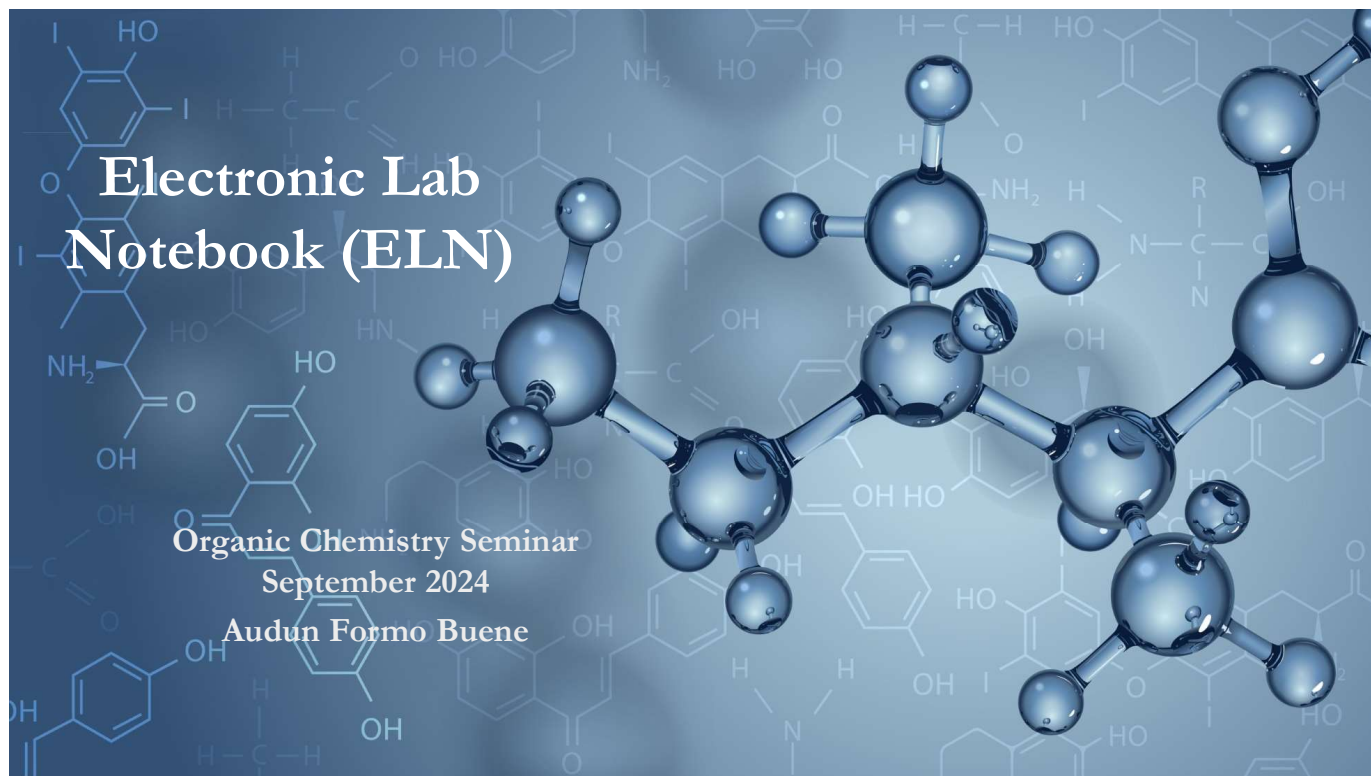
- One meeting every month
- Interesting topics needed
 - Do you have a chemistry skill you can share?
 - Topic requests
- Baking of cakes
- Attendance and contributions



Recent chemistry from each research group - a round of short introductions

- Organic Analysis and Synthesis of Sugars (Nebojša Simić)
- Advanced Optoelectronic Nanomaterials (Solon Oikonomopoulos)
- Organic Energy Materials (Audun Formo Buene)
- Applied Organic Chemistry (Bård Helge Hoff)
- Biocatalysis in Organic Chemistry (Elisabeth Egholm Jacobsen)
- Synthetic Organic Chemistry (Odd Reidar Gautun)



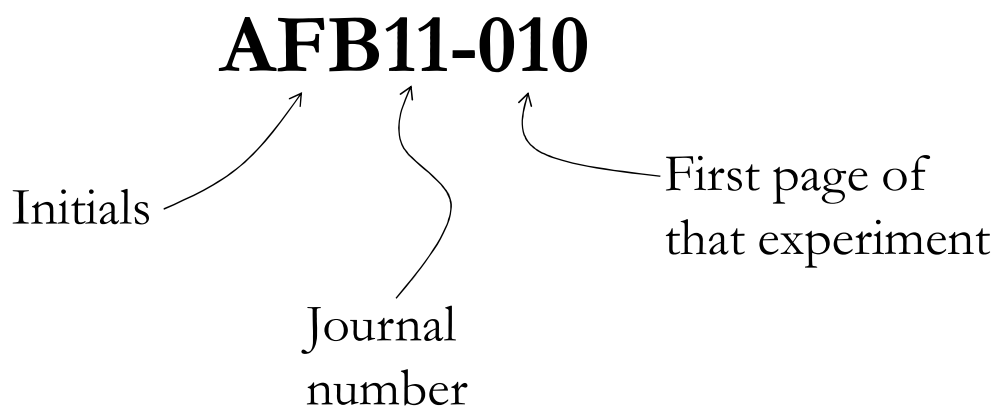


Outline

1. Naming experiments convention – personal preference
2. Demonstration of how ELN works
3. Step-wise guide to how you get access to Revvity Signals ELN
4. Disclaimers and how to get help



Naming convention (choose one that is traceable)



Electronic Lab Notebook – why?

ChemDraw reaction scheme/figures	→	Beautiful
Copy an experiment in 10 seconds	→	Easy
You're less likely to make stupid mistakes	→	Accurate
Your journal can be read by other people	→	Readability
Play around with scales and find the optimal one	→	Scalability
Include other information you need for the synthesis	→	Tunable
Molecular weights and information is ready	→	Convenient

efficiency ☺



Demonstration of ELN

1. Make a notebook
2. Make experiment
3. Insert reaction scheme
4. Insert text
5. Add reagents and products
6. Scale the reaction
7. Export to PDF
8. Copy and reuse of experiments



Electronic Lab Notebook – how?

1. Get a ChemDraw license through NTNU
 - Go to <https://connect.revivitysignals.com/login/>
 - Register with your NTNU email adress
 - Follow instructions on email on how to activate user
2. Go back to <https://connect.revivitysignals.com/login/>
 - Go to *My site subscriptions*
 - Search for NTNU (Universitet NTNU)
 - Register for *Access Revvity Signals Cloud Applications*
3. Now you should be able to log into <https://signalsresearch.revivitycloud.com/>
4. Optional: Create a shortcut on your desktop to that website for easy access.

Electronic Lab Notebook – disclaimers

1. Do not forget to use common sense
2. Catalysts with ligands – double check molecular weights!
3. If you've got problems, ask me («super user») or any of my super user students to help you 😊



How to draw nice chemical structures and use SMILES efficiently in ChemDraw by Bård

```
C[C@H]1[C@H]([C@@](C[C@@H](O1)O[C@@H]2[C@H]([C@@H]([C@H](O[C@H]2OC3=C4C=C5C=C3OC6=C(C=C(C=C6)[C@H]([C@H](C(=O)N[C@H](C(=O)N[C@H]5C(=O)N[C@@H]7C8=CC(=C(C=C8)O)C9=C(C=C(C=C9O)O)[C@H](NC(=O)[C@H]([C@@H](C1=CC(=C(O4)C=C1)Cl)O)NC7=O)C(=O)O)CC(=O)N)NC(=O)[C@@H](CC(C)C)NC)O)Cl)CO)O)O)(C)N)O
```



A happy PhD student and Bård.

Closing summary, idea session for new topics and a look at what is planned for the next seminar

2nd seminar time: 17th October 2024, 12.30-14.00

Seminar times can be found on the Organic Chemistry Group webpage: ntnu.edu/chemistry/research/organic

Any ideas for topics for upcoming seminars?

Thank you very much for
joining! 

Suggestions:

- How drying of solvents works
- Story of insane lab efficiency from Germany
- Formalism when writing experimental sections
- Radioactive chemistry
- MS and HPLC refreshers
- How to work efficiently in MNova