

KN NEWS

Dear cleanroom user,

This is the 22th edition of **Kavli Nanolab News**. In this issue you can find news on plans, new procedures and investments.

Safety meetings

Like last year we will soon organize MANDATORY safety meeting for all active users. You will be invited soon to participate in one of the meetings which will take place between January and April 2020.

Recent Installations

- The Sentech F2 is ready for use and users can be trained on the system. Medio 2020 we intend to replace the Leybold F1 tool by a similar Sentech system
- A second Tepla oxygen radical etcher is ready for use.
- Plassys UHV evaporation system will arrive the 2nd week of January 2020.

If you are interested in more details please read the previous edition of KN news (July 2019).

New HR-SEM

A new high-resolution SEM is ordered from Hitachi. The Regulus 8230 FE-SEM system has sub-nanometer resolution and also is capable of easily imaging poorly conductive samples.

For more information please ask Hozan Miro.



New UV laser direct write system

We recently ordered a new laser writing system, the μ MLA from Heidelberg. This system is equipped with a DMD spatial light modulator enabling an expected writing speed that is 1.000 to 10.000 times faster than the current system.

For more information please ask Anja van Langen



Upcoming investment in IPC-CVD and ICP Chlorine RIE systems

In order to relieve the load on the current PE-CVD system we intend to buy a new ICP-PE-CVD system. Moreover, the creation of high density plasmas in the ICP source means this technique delivers deposition of high quality dielectric films at low temperature (e.g. 100 °C) with low damage.

The GIR-300 chlorine etcher is at the end of its life-time and need to be replaced. Instead of a REI system we probably will choose for an ICP RIE Chlorine etcher, similar as the Oxford ICP-Cl tool.

Lodi Schriek new KN staff member

I graduated in Applied Physics at T.H. Rijswijk in 2008 (BEng) where I did my thesis in fiber optics related topics at Baas R&D department. After that I worked as a research assistant at TU Delft, department Radiologic Institute Delft (working on cryogenic, vacuum, scintillation setups), followed by the same job description at TU Delft, but department Multi Scale Physics, where I worked on LDA, PDA, PIV, PLIF and CARS setups. I enjoyed 8 years at the Optics department of TNO after that, where I continued to grow in optical measurement techniques and fiber optics, but also sharpened health and safety knowledge, laser safety, vacuum techniques and maintenance requirements of complex equipment.

Before graduating I was a jack of all trades, of which the most important ones are sound engineer and motorcycle mechanic. In my free time I fix anything with a combustion engine and has 3 wheels or less (no cars please). Other than that, you can find me top-rope climbing, running (5-10 km, minimalistic

shoes), in yoga class (Iyengar), on a supboard (Love Biesbosch), pruning fruit trees in someone's orchard (Kinderdijk) or working with leather, cloth or yarn (making shoes or clothes) by the woodfire.

And now I'm back at TU Delft: Starting September 1st, I will join the Kavli Nanolab team, to help keep the equipment in good shape for the lab users! I will be responsible for measuring and inspection equipment, like AFM, ellipsometer, Raman, microscopes etc.

