# LabAdviser update: 6/4 2020

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| Updated Subject | Contributor | Link to the updated pages |
| **Technology Research**  This overview of ongoing and ended research project on Nanolab relevant to the open access facilities has been updated. Some project descriptions have been added: | **Berit Herstrøm @Nanolab**  **Ariadni Droumpali @Nanolab**  **Mario Heinig**  **@Nanolab**  **Anton Bay Andersen @Nanolab**  **William Bang Lomholdt @Nanolab**  **Christopher Røhl Andersen @Nanolab** | [LabAdviser/Technology\_Research](http://labadviser.nanolab.dtu.dk/index.php/LabAdviser/Technology_Research)  [Technology\_Research/Fabrication\_of\_surfaces\_for\_the\_promotion\_of\_bacterial\_biofilms](http://labadviser.nanolab.dtu.dk/index.php/LabAdviser/Technology_Research/Fabrication_of_surfaces_for_the_promotion_of_bacterial_biofilms)  [Technology\_Research/Synthesis\_and\_nanoscale\_characterization\_of\_ultrathin\_and\_ultrasmooth\_metal\_films](http://labadviser.nanolab.dtu.dk/index.php/LabAdviser/Technology_Research/Synthesis_and_nanoscale_characterization_of_ultrathin_and_ultrasmooth_metal_films)  <http://labadviser.nanolab.dtu.dk/index.php/LabAdviser/Technology_Research/Quantitative_electron_microscopy_of_2D_materials>  [Technology\_Research/High-resolution\_TEM\_cat-nano-surf](http://labadviser.nanolab.dtu.dk/index.php/LabAdviser/Technology_Research/High-resolution_TEM_cat-nano-surf)  [Technology\_Research/Live\_TEM\_imaging\_nanowire\_growth](http://labadviser.nanolab.dtu.dk/index.php/LabAdviser/Technology_Research/Live_TEM_imaging_nanowire_growth) |
| **Optical microscopes**  Completely revised microscope table and updated the data. | **Jens H. Hemmingsen @Nanolab** | [/Characterization/Optical\_microscope](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/Optical_microscope) |
| **Hotplates**  QC info has been added | **Jens H. Hemmingsen @Nanolab** | [/Lithography/Baking](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Lithography/Baking) |
| **Sputter System Lesker (old system)**  A major revision has been made. A lot of subpages has been made to get a better overview.  New information about stress in thin films (from Radu) has been added to a new page.  Several thin film pages has been updated to match this: Cu, Cr, Si, SiO2, Ta and NiFe | **Rebecca B. Ettlinger @Nanolab**  **And Radu Malureanu @Fotonik** | [Thin film deposition/Lesker](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Thin_film_deposition/Lesker)  [Lesker/Stress dependence on sputter parameters in the Lesker sputter system](Specific%20Process%20Knowledge/Thin%20film%20deposition/Lesker/Stress%20dependence%20on%20sputter%20parameters%20in%20the%20Lesker%20sputter%20system) |
| **XRD (X-Ray Diffraction)**  Overview page for XRD at Nanolab  New page for XRD Powder  Page for XRD SmartLab has been moved to this page: | **Rebecca B. Ettlinger @Nanolab** | [/Characterization/XRD](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/XRD)  [/Characterization/XRD/XRD\_Powder](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/XRD/XRD_Powder)  [/Characterization/XRD/XRD\_SmartLab](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/XRD/XRD_SmartLab) |
| **Maskless 03 aligner (MLA3)**  A new page on the new MLA3 exposure technology has been added. Some sections may still be under contractions.  Updated info on the exposure dose on the MLA’s | **Thomas A Anhøj @Nanolab** | [/Lithography/Aligners/Aligner:\_Maskless\_03\_processing](http://labadviser.danchip.dtu.dk/index.php/Specific_Process_Knowledge/Lithography/Aligners/Aligner:_Maskless_03_processing)  [/Lithography/UVExposure\_Dose](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Lithography/UVExposure_Dose) |
| **UV Lithography**  Resist overview has been updated and some new flows have been added. The section on “Getting started” has been updated. | **Thomas A Anhøj @Nanolab** | [/Lithography/UVLithography](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Lithography/UVLithography) |
| **New Lesker: multi chamber sputter system**  New pages on the double chamber sputter system from Lesker. | **Evgeniy Shkondin @Nanolab** | [Thin film deposition/Cluster-based multi-chamber high vacuum sputtering deposition system](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Thin_film_deposition/Cluster-based_multi-chamber_high_vacuum_sputtering_deposition_system) |
| **QC information**  QC information on several instruments has been added and updated. | **Thomas A. Anhøj, Jens H. Hemmingsen, Rebecca B. Ettlinger, Berit Herstrøm @Nanolab** | On several lithography equipment and some thin film equipment. |
| **Life Time Scanner**  The page has been updated | **Patama Pholprasit @Nanolab** | [/Characterization/Lifetime\_scanner\_MDPmap](http://labadviser.danchip.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/Lifetime_scanner_MDPmap) |
| **AOE**  Optimized Silicon etch process for thin layers of pSi og aSi. | **Henri Janssen and Berit Herstrøm @Nanolab** | [/Etch/AOE\_(Advanced\_Oxide\_Etch)/Si\_etch\_using\_AOE](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Etch/AOE_(Advanced_Oxide_Etch)/Si_etch_using_AOE) |
| **PECVD4**  MF SiN2 @100W tested and added to LabAdviser. | **Berit Herstrøm @Nanolab** | [/Thin\_film\_deposition/Deposition\_of\_Silicon\_Nitride/Deposition\_of\_Silicon\_Nitride\_using\_PECVD#Deposition\_of\_SiN\_with\_PECVD4](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Thin_film_deposition/Deposition_of_Silicon_Nitride/Deposition_of_Silicon_Nitride_using_PECVD#Deposition_of_SiN_with_PECVD4) |
| **Hot Embosser**  The Hot Embosser placed in the basement has been added to LabAdviser | **Darmin Catek @Nanolab** | [/Back-end\_processing/Hot\_Embosser](http://labadviser.nanolab.dtu.dk/index.php?title=Specific_Process_Knowledge/Back-end_processing/Hot_Embosser) |
| **Filmetrics Optical Profiler**  New optical profiler from Filmetrics. Place in the basement. Only interferometric measurements. | **Berit Herstrøm @Nanolab** | [/Characterization/Profiler#Optical\_Profiler\_.28Filmetrics.29](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/Profiler#Optical_Profiler_.28Filmetrics.29) |
| **Filmetrics F10-RT**  New simple reflectometer and transmittance measurement system. Also for thin film measurements. | **Berit Herstrøm @Nanolab** | [/Characterization/Optical\_characterization#F10-RT\_reflectometer.2C\_transmitance.2C\_film\_thickness\_measurements](http://labadviser.nanolab.dtu.dk/index.php/Specific_Process_Knowledge/Characterization/Optical_characterization#F10-RT_reflectometer.2C_transmitance.2C_film_thickness_measurements) |

# Equipment Manuals updated in LabManager (since 17th of January):

As an approved user on a piece of equipment you have to make sure you have read and understood the latest version of the manual before using the equipment.

5. 3. 6.20) Manual af Hot Embosser, ver 1.1

5. 3. 7.29) Manual for SEM LEO, ver 4.1

5. 3. 6.01) Manual for Flip Chip bonder, ver 5

5. 3. 7.46) Manual for SEM Supra 2, ver 3.1

5. 3. 7.53) Manual for XRD SmartLab, ver 1.1

5. 3. 1.33) Manual for Spin Coater: Manual All Purpose, ver 2.4

5. 3. 6.13) Manual for Laser Micromachining Tool, ver 3

5. 3. 3.10) Manual for III-V ICP, ver 1.5

5. 3. 6.07) Manual for Tencor Alpha Step, ver 3

5. 3. 7.51) Manual for Hardness tester, ver 2

5. 3. 6.12) Manual for Ball wire-bonder, ver 2.2

5. 3. 7.58) Manual for XRD Powder, ver 1

5. 3. 3.11) Manual for ICP Metal Etch, ver 2.4

5. 3. 5.02) Manual for Phosphorus Drive-in furnace (A3), ver 9.1

5. 3. 6.16) Manual for Polymer Dryer 1 and 2, ver 1.2

5. 3. 7.45) Manual for ellipsometer VASE, ver 1.4

5. 3. 5.11) Manual for RTP Jipelec, ver 7.1

5. 3. 3.04) Manual for AOE, ver 3.5

5. 3. 5.15) Manual for Boron Drive-in and Pre-dep furnace (A1), ver 4.1

5. 3. 3.05) Manual for ASE, ver 2.2

5. 3. 5.12) Manual for furnace computers for the A-, B-, C- and E-stack furnaces, ver 5

5. 3. 1.43) Manual for Spin coater: RCD8, ver 1.3

5. 3. 6.14) Manual for Vacuum Sealer, ver 3

5. 3. 7.07) Manual for Drop Shape Analyzer, ver 3

3. 1. 4.10) APV and manual for fume hoods in the cleanroom, ver 5

5. 3. 1.13) Manual for Developer: SU8, ver 7

5. 3. 1.16) Manual for Hotplate (SU8), ver 3.3

5. 3. 1.38) Manual for Hotplate: 90-110C, ver 2.2

5. 3. 1.58) Manual for Aligner: Maskless 03, ver 1

5. 3. 2.04) Manual for LPCVD Nitride Furnace (4"), ver 7.1

5. 3. 2.11) Manual for Sputter-System Metal-Oxide (PC1)/Metal-Nitride (PC3), ver 1

5. 3. 4.03) Manual for Wafer Cleaning, ver 5

5. 3. 4.04) Manual for Mask Cleaning, ver 5