Potential Topics:
Topic 1: Pulsed Laser Deposition
Topic 2: Sputtering
Topic 3: Spin Coating
Topic 4: Atomic Layer Deposition
Topic 5: Chemical Vapour Deposition
Topic 6: Thin Film Analysis: Diffraction
Topic 7: Thin Film Analysis: X-ray Photoelectron Spectroscopy

Your performance will be evaluated based on a presentation of 30 min (in the form of a PowerPoint presentation with a size of approximately 15-25 slides) followed by a scientific and general discussion of 15 min.

In the part of Prof. Clemens, the students are meant to develop a seminar series on the synthesis of thin films via a variety of methods as well as their characterisation. For your presentation, you will have to explain the basics of each and every method in detail, explaining what type of inorganic materials can be synthesized with it and what needs to be considered to obtain them in good quality. In addition, morphological aspects should be discussed and 2-3 applications of such films should be discussed in detail. For the analysis topics, an overview on the method should be given, how to use it for thin films and what information can be obtained and how it should be combined with other methods to obtain suitable informations. In addition, the analysis of films for 3-4 papers with various aspects should be covered. Overall this will require a study of selected research articles.

Discussion and distribution of topics, finalizing of further schedule: Wednesday, 19th of October 2022, 9 am – 11 am

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