Ph D course in Chemical Vapor Deposition (8 hp)

Course responsible:
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Course information:
This course is intended for Ph D students (and other interested, such as diploma workers and post docs) who in some way work with some sort of thin films deposited by Chemical Vapor Deposition (CVD) or just want to broaden their view on thin film deposition and materials science. The course will cover the major sorts of CVD techniques used in the scientific world today such as:

- Thermally activated CVD
- Photo activated CVD
- Plasma activated CVD
- Metal Organic CVD (MOCVD)
- CVD at low pressures
- ALD (Atomic Layer Deposition)
- Chemistry in the CVD process
- CVD precursor design and synthesis
- Basics of CVD reactors
- Modelling of CVD processes

The course will be based on a number review papers and book chapters.

Examination:
The course will be examined in the popular manner applied in many Ph D courses:

- Before each lecture, you read the assigned texts. At the start of the lecture, there is a pre-lecture quiz on the content of the upcoming lecture.
- After each lecture (except the last one), a set of home assignments will be given. The home assignment is to be handed in at the latest at the start of the next lecture.
- A home exam essay where you will apply your knowledge on CVD to discuss around a few CVD related cases.

Depending on how well you performed in the continuous examination, you will automatically pass a set of questions on the home exam (i.e., you will not have to do all assignments in the home exam). Details will be given in connection with the home exam. The home exam will be peer reviewed and discussed in an ending seminar, in which active participation is mandatory.