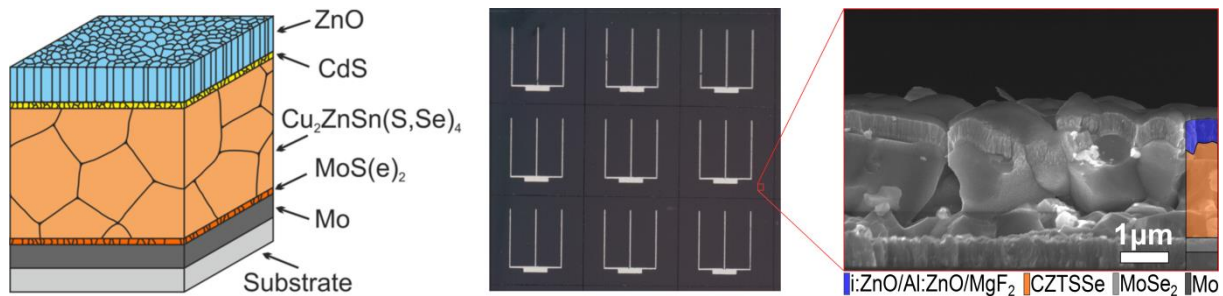


Solution-processed kesterite solar cells

Kesterite is a relatively novel absorber material for thin film solar cells. It consists of readily available materials, therefore overcoming limitations of other thin film technologies. In our laboratories at Empa we achieved with a facile solution process over 11% efficiency rendering one of the highest efficiencies worldwide. In the master project alternative back contact configurations for high-efficient solution-processed kesterite solar cells will be investigated. For this study different back contact configurations will be deposited by sputtering and characterized with methods such as X-ray diffraction (XRD), scanning electron microscopy (SEM) and final device characterization with J-V and quantum efficiency measurements.



We are looking for students in the field of Chemistry/Electrical Engineering/Materials Science/Physics willing to work in a motivated, multi-disciplinary team performing cutting edge science in the field of thin film photovoltaics. The ideal candidate is dedicated to lab based as well as analytical instrumental based work with a strong focus to applied research.

Duration: 4 - 6 Months (Master thesis)

Starting date: anytime

Required skills: Basic knowledge about chemistry, electronics and experience in a lab environment.

Contact: Yaroslav.Romanyuk@empa.ch, Stefan.Haass@empa.ch

Visit our web-page: <http://www.empa.ch/web/s200/photovoltaics>