OPTEXC/MultiTrans
Invited Speaker Series

Towards Neuromorphic Switching and More Stable Solar Cells by Understanding Ion Migration in Perovskites***

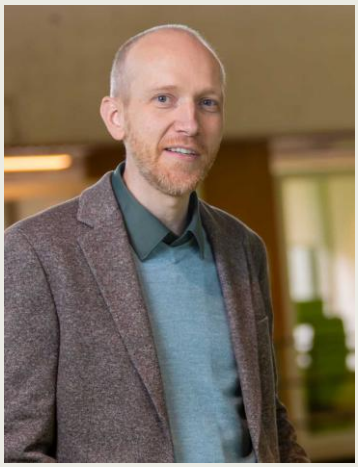
Ion migration is one of the main challenges limiting the long-term stability of perovskite solar cells, yet quantifying it remains difficult. Impedance spectroscopy is widely used, but requires electrical contacts. I will show how optical equivalents can provide similar, and in some cases the same, information while also working on contact-free samples.

Ion migration is not only a problem: it can also enable neuromorphic functionality. The large difference between electronic and ionic timescales allows memory to be encoded in perovskite devices. I will present brain-inspired artificial synapses and neurons that operate at very low energy and can respond to light.

Ultimately, controlling ion migration could enable both more stable solar cells and more efficient neuromorphic networks.

Date: Monday, 12th Oktober 2026

Time: 1230 | Room: H13 (NWI)



Prof. Dr. Bruno Ehrler
AMOLF
Netherlands

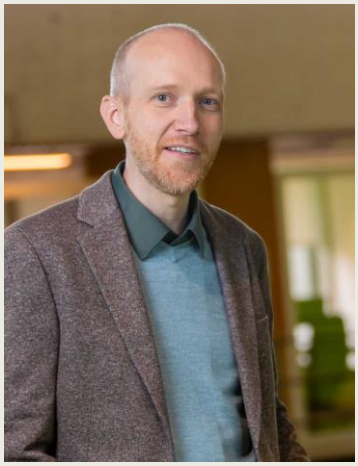
OPTEXC/MultiTrans
Tutorial Series

Characterizing Ion Migration in Perovskites

Date: Monday, 12th Oktober 2026

Time: 1000

Room: S75 (NWII)



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