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title: "Stabilizing NFA based organic solar cells"

Organic solar cells have recently broke the power conversion efficiencies limit of 20 %. This puts extra attention to increasing their stability as their last remaining challenge. Since they consist of organic molecules, they are susceptible to degradation in contact with oxygen, light, heat and humidity, which are commonly found stresses in their working environment. Different pathways can be explored to enhance their stability; we will present several explored by our group on different non-fullerene based devices: antioxidant-assisted stabilization of active layer and interlayer, molecule purification, molecular structure modifications, device architecture. We will discuss the observed enhancement in stability and use microscopic and spectroscopic techniques to probe the mechanisms.

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Vida Engmann is an Associate Professor at SDU CAPE. She obtained her Dr. rer. nat. in 2014 from the Ilmenau University of Technology, Germany. In 2014 she joined the University of Southern Denmark, and in 2020 got appointed an associate professor. Her research stays include University of Colorado Boulder, and Uppsala University. Her research focuses on bioinspired approaches to the stabilization of organic and hybrid semiconductor-based green energy devices. She received the 2019 L'Oréal-UNESCO For Women in Science award, and the 2020 International Rising Talent award. In 2020 she was awarded Carlsberg Young Researcher Fellowship, and in 2021 DFF Sapere Aude grant.