

Master's or Bachelor's Thesis on Industrially Scalable Recycling of Perovskite Solar Cells

We are looking for a student to develop an incineration-based recycling process for perovskite solar cells, focusing on lead recovery and reintegration into new devices. This work targets a critical challenge in large-scale solar technology production, aiming to advance sustainable, cost-effective recycling methods.

Who We're Looking For

- Background in chemistry, materials science, physics, or related fields.
- Experience with lab work, especially in chemical processing or photovoltaics, is beneficial but not mandatory.
- Ability to work independently and solve technical problems systematically.

Project Tasks

- Develop and optimize incineration protocols for used perovskite solar cells.
- Recover and purify lead from incinerated residues.
- Reprocess the recovered lead into functional materials for new solar cells.
- Characterize materials and cells using standard analytical methods (e.g., XRD, SEM, J–V).
- Conduct literature research on related recycling and incineration techniques.

Starting date

Immediate start is possible.

Contact Details

Dr Misha Sytnyk m.sytnyk@fz-juelich.de Helmholtz-Institute Erlangen-Nürnberg (HI ERN) Immerwahrstraße 2, 91058 Erlangen Room 0.7