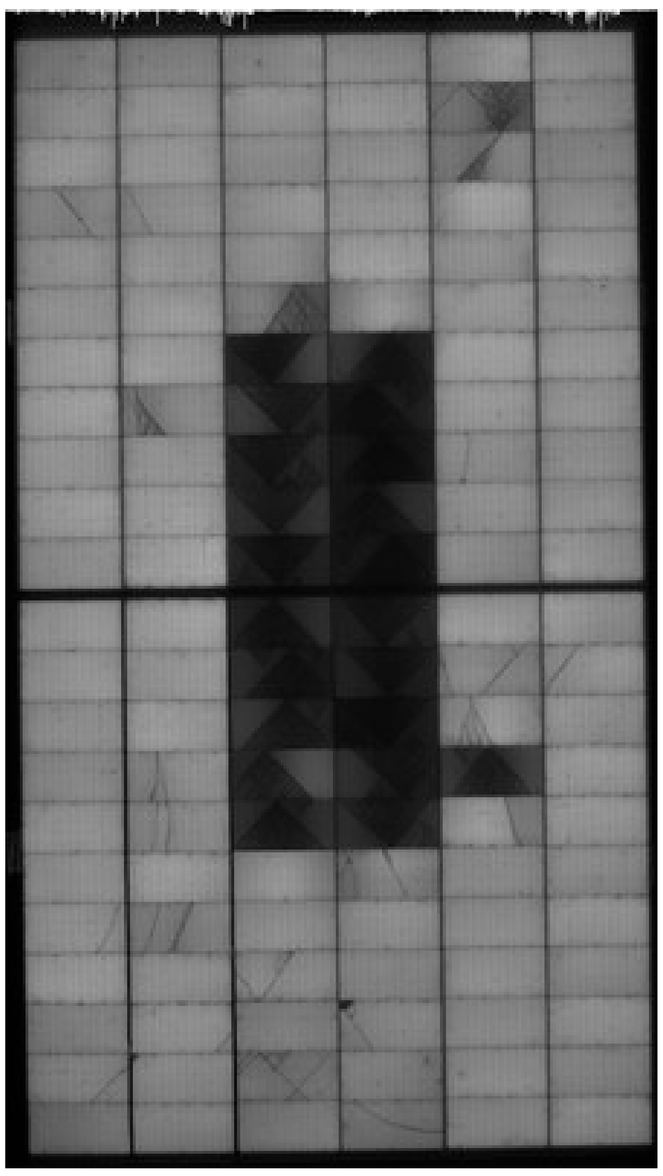
Bachelor/Master Thesis: Investigation of crack forming in new PV module technologies

Investigation of resilience of modern PV module technologies to cell crack formation



Task:

→ Performing of mechanical loading tests at the unique mechanical load test setup at HI ERN to study crack formation in PV modules of new technology. Therefore collecting datasets including IV curve measurements, Electroluminescence (EL) and Photoluminescence (PL) images at different loading states.

→ Analyzing the data in terms of EL intensity, crack type, appearance of cracks (time, load, position, orientation), impact on module power

Our expectations:

Knowledge in analyzing of datasets using python (or matlab); Work Independently; hands-on mentality, knowledge in Excel, good analyzing

Qualifications:

Student of energy technology, engineering, renewable energy and related fields of study,

Location:

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