

FUN

Sputtered and otherwise deposited a-Si for Fabricating passivated screen- printed contacts for an indUstrially feasible production

Project duration: from 09.2019 to 08.2022

Report submitted: 03.2020

Publishable Summary

The overall aim of the project is to provide highly performing photovoltaics and reduce the cost of solar technology. Therefore, we selected the EpiWafer process (epitaxially grown Si wafers) to produce highly cost-effective Si wafers and combine them with a high efficiency silicon solar cell process based on the approach of passivated contacts and screen-printing metallization. Therefore, this project develops and characterizes on the one hand a specific gettering process and on the other hand screen-printing metal pastes for contacting doped polycrystalline or amorphous Si layers.

Project consortium

Coordinator and all contact details:

Full name of organisation	Universität Konstanz
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Participating countries and financing:

Country	Number of organisations involved	Project costs in EUR	Public funding in EUR
Germany	3	1'019'149	930'636
The Netherlands	1	165'000	82'500
<i>Total</i>	3	<i>1'184'149</i>	<i>1'013'136</i>

Funding agencies involved and contracts

Funding Agency	Contract N° and Title
Federal Ministry for Economic Affairs and Energy	<ul style="list-style-type: none"> • 03EE1022A: “Integration of screen-printing based metallisation and gettering processes of EpiWafers in a solar cell process with passivated contacts” • 03EE1022B: Advanced industrial PV technologies • 03EE1022C: „Electron beam evaporation and laser crystallization of silicon for passivated screen printed contacts“
Rijksdienst voor Ondernemend Nederland	SOL18004: Sputtered and otherwise deposited a-Si for fabricating passivated screen-printed contacts for an industrially feasible production