

Printing Powder-based Photovoltaic Modules

An appropriate technology to make African countries energy-selfsufficient

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Abstract

The prices for solar electricity have dropped constantly since several decades already reaching the level of consumer costs in most countries of the world today and will decrease further. Thereby photovoltaics will enable all countries to electrify energy supply in decentralized and sustainable ways, if the necessary technology can also be produced within the country. Crystalsol has developed a technology allowing the production of photovoltaic modules based on standard printing of stable semiconductor powders, which can easily be shipped from powder production facilities anywhere in the world. Thereby every country can become largely self-sufficient in terms of energy supply and with falling costs provide electricity for very low costs even in remote areas.

In this talk after an introductory part underlining the key importance of energy supply for a sustainable development and discussing the past and future of solar electricity prices, crystalsol's technology will be explained. It will be demonstrated how this technology will empower basically all countries to not only use solar energy for extremely low costs, but also to produce the necessary devices in their own control largely avoiding further exploitation by developed countries.

Keywords: Solar Energy, Sustainability, Self-sufficiency, Photovoltaics, Printing