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COLLOQUIUM

Light management in solar energy devices

Speaker:

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Place:

ISAS Berlin, Lecture Hall (Room 218) Schwarzschildstr. 8,
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Light management in solar energy devices

In future energy scenarios technologies for the conversion of solar energy into electricity will play a major role. Proper optical design of solar energy devices is crucial in order to achieve high conversion efficiencies and maximum energy yield. Here, tailored nano- and microstructures enabling broadband light trapping and light in-coupling into solar cell device are of particular importance. In this presentation I will report on recent experimental and numerical advances in light management for three emerging technologies in photovoltaics: perovskite-silicon tandem solar cells, bifacial solar cells and photon up-conversion.