



More efficient solar cells with nanotechnology

Solar energy – the perfect, sustainable energy source. New solar cells using nanotechnology enable solar energy to be made more efficient and scaled up.

The energy in the Sun's rays that reach the Earth every day corresponds to more than 15 000 times the electricity needed by the world's population in everyday life.

If we could capture the Sun's rays in a smarter way and convert them into electricity, we could replace fossil energy sources which are destroying our climate and our environment. Nanotechnology makes this possible. At NanoLund, researchers are producing extremely small particles that play a key role in new technology to make solar cells much more efficient. Thin nanowires with a thickness of only one per cent of a hair's breadth are cultivated in a cleanroom laboratory to then be included as the crucial component in the new solar cells.

A sustainable, electricity-based economy is possible thanks to nanotechnology based on nanowires developed at NanoLund. Solar cells integrated in buildings and vehicles will lead to safer, more democratic and local electric power production.

In the future, roofs with traditional roof tiles could for example be equipped with invisible solar cells that convert solar energy with extreme efficiency.

NanoLund is world-leading in the exploitation of the properties of nanostructures and in producing nanowires cheaply and efficiently. Now, however, Lund's nanoresearch has outgrown its laboratory.

In order to realise the dream of renewable, climate- and eco-friendly energy, the nanoresearchers need NanoLund's new laboratory Nanolab Science Village.

Imagine this being possible thanks to you!

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