

BROKERAGE EVENT IN HORIZON EUROPE

ENERGY TOPICS

4 MOTORS FOR EUROPE
3rd June

INL (INSA de Lyon)

Amara Mohamed



Institut des Nanotechnologies de Lyon

UMR-CNRS (INSIS): 200 people (120 permanent)



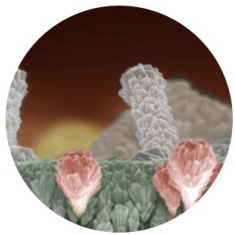
ICT



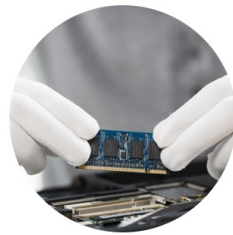
Energy



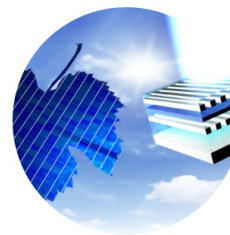
Health



Functional materials



Electronics



Photonics and Photovoltaics



Biotechnology and Healthcare

- Functional oxides on silicon,
- Monolithic integration on silicon

- Single electron devices,
- Silicon-based nano-devices,
- Functional material-based devices

- Photonic crystals,
- silicon solar cells process
- optical and electrical characterizations and simulations

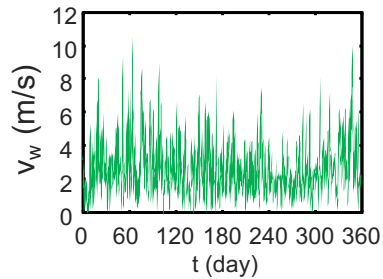
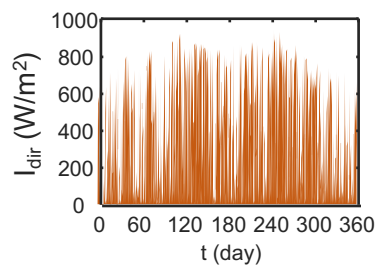
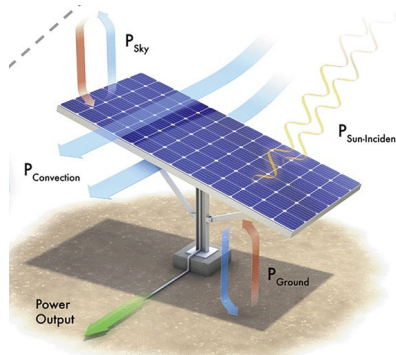
- Bottom-up nanotechnologies,
- Integrated micro-nano-biosystems
- Biomedical sensors,
- Lab-on-chip, micro-nano-fluidics



Our expertise / project idea : Modeling solar modules under realistic conditions



PV in fields / BIPV

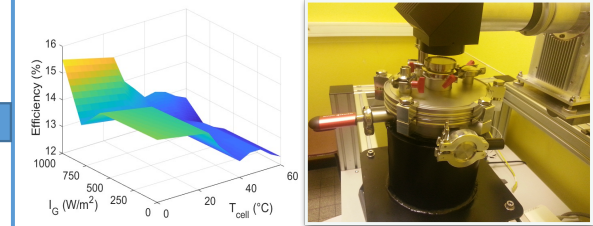


Energy yield (kWh/m²)

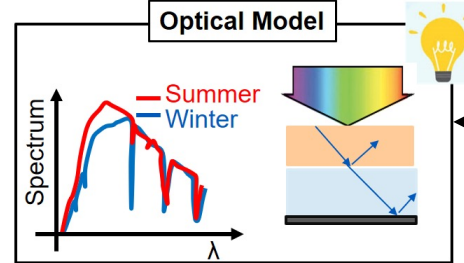


Electrical Model

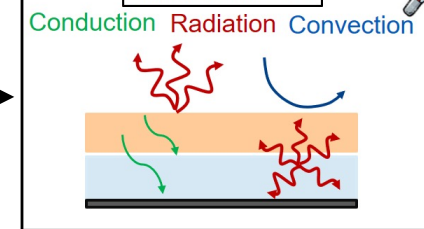
Experimental Matrix (Power, T, ligh)



Optical Model



Thermal Model

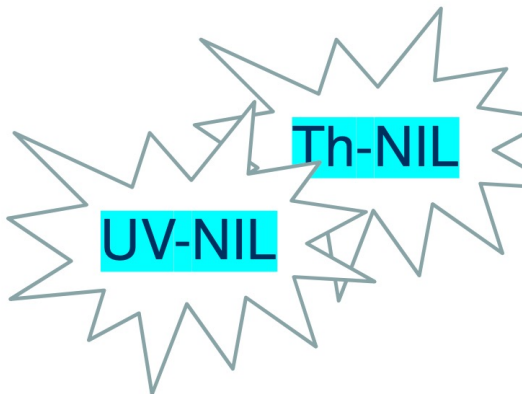
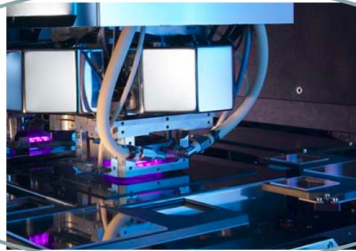


What we can offer



FC 300

High Precision Die / Flip Chip Bonder + Nanoimprinting Lithography (NIL) capabilities



- Stamp to wafer alignment performed along XYT axes and parallelism (XY: 395 x 395 mm; Resolution: 10 nm ; Theta control: +/- 5 degrees; Resolution: 0,4 μ radian; Z stage: 160 mm; resolution 50 nm)
- Stamp pressed into layer to transfer the pattern:
- The stamp is lifted up and moved to the next site
- Imprinted repeated at the new location
Self-leveling of the stamp
Temperature and pressure profiles are monitored

Contact details



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