







Prof. Dr. Ali Erçin Ersundu Yildiz Technical University, Istanbul, Türkiye

GREENET Brokerage Event 6th May 2025





Prof. Dr. Ali Erçin Ersundu

Yildiz Technical University, Istanbul, Turkiye

- Faculty member @ Metallurgical and Materials Engineering
- Co-director of Glass Research Group





YTU Glass Research Group

www.glass.yildiz.edu.tr



YTU Glass Research Group at Yıldız Technical University specializes in the development of advanced materials for energy, optoelectronics, and sustainable technologies.

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Yildiz Technical University (YTU) is one of the seven public universities situated in Istanbul and the 3rd oldest university of Turkey with its history dating back to 1911.



Cluster 5 National Contact Point.

YTU Glass Research Group

Renewables (general); Photovoltaics

HORIZON-CL5-2026-02-D3-10: Towards commercialisation of Perovskite PV and development of dedicated manufacturing equipment (EUPI-PV Partnership)

Carbon Capture, Utilisation and Storage (CCUS)

HORIZON-CL5-2026-02-D3-24: New CO2 capture technologies





Advanced Materials for Next-Generation Energy and Optoelectronic Applications

- Development of novel luminescent materials for photovoltaic systems with integrated light spectrum control.
- Design and optimization of luminescent solar concentrators (LSCs) for building-integrated photovoltaics (BIPV) and clean energy solutions.
- Advanced luminescent materials for solid-state lighting, plant growth LEDs, anti-counterfeiting, and laser-based display applications.
- Development of functional thin films on glass and ultra-thin chemically strengthened glass for enhanced durability and performance.

Carbon capture, utilization, and mineralization using waste materials to develop sustainable and eco-

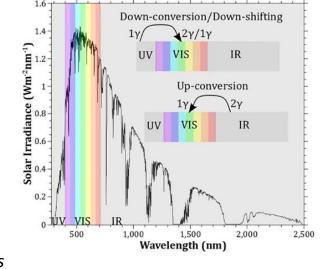
friendly solutions.

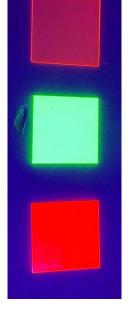


Sample Size

- Up to 10*10 cm
- From 1 mm up to 10 cm

Surface Quality
roughness of standard-produced samples
Ra is around 5 nm
specially prepared surface
Ra is 0.18 nm



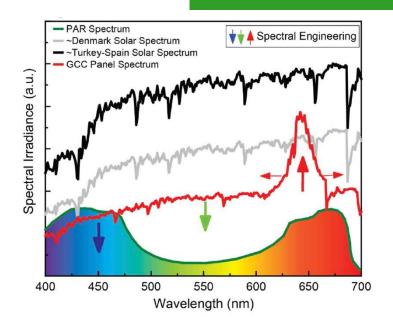


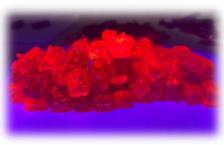




PV4Plants - www.pv4plants.eu











AgriPV system with climate, water and light spectrum control for safe, healthier and improved crops production

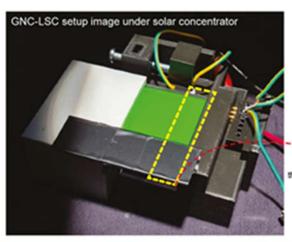


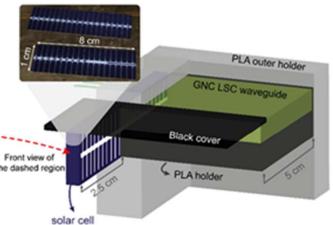


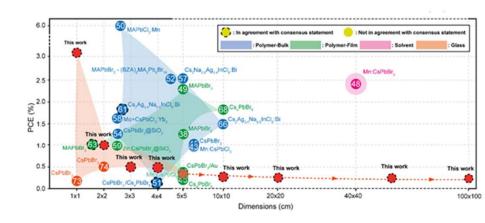
REFORM - PoweR gEneration From perOvskite

aRchitectural eleMents





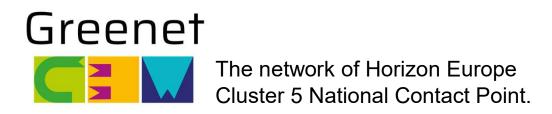


















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