

Time for field test of Graphene technology: The Graphene-Perovskite Solar farm and beyond

Aldo Di Carlo

Institute of Structure of Matter, National Research Council, Rome (Italy)

CHOSE-University of Rome Tor Vergata, Rome (Italy)

aldo.dicarlo@uniroma2.it

In the present talk I will discuss the design, fabrication, implementation and test of the Graphene-Perovskite Solar Farm. [1]

The Solar farm includes 9 halide perovskite solar panels realized exploiting the Graphene and Related 2D material (GRM) interface engineering.

The Solar farm was tested in Crete and permitted to evaluate the photovoltaic properties of this new generation graphene-perovskite solar cells.

The information gathered by the field test are now used to realize graphene-perovskite/silicon tandem panels. The last achievements of this tandem technology will be discussed.

References

[1] S. Pescetelli et al. Nature Energy 7, pages597–607 (2022)