

# newsletter

No.

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**a-leaf**

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## A-LEAF: a new FET Proactive project

### An Artificial Leaf

A photo-electro-catalytic cell from earth-abundant materials for sustainable solar production of CO<sub>2</sub>-based chemicals and fuels.

Artificial photosynthesis seeks to replicate the natural photosynthetic process by which plants transform sunlight, water and carbon dioxide into carbohydrates and oxygen.

The A-LEAF project combines the expertise of 13 institutions from 8 different countries aiming at finding new sustainable alternatives for fossil fuels. With nearly €8 million euros, it is one of the biggest artificial photosynthesis research projects funded by the European Commission.



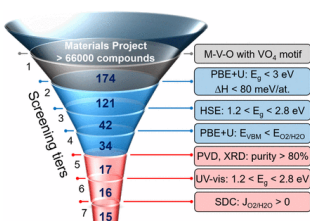
A-LEAF will join different disciplines (catalysis, surface science, photoelectrodes and modelling) in a multidisciplinary effort for designing, build, validate and optimize a novel photo-electro-catalytic (PEC) cell based on cheap and abundant materials, leading to economic sustainable fuels and chemicals.

Grant agreement  
732840-A-LEAF



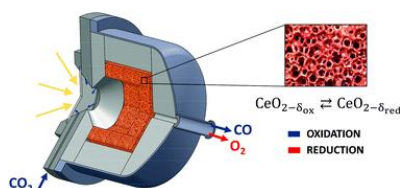
## Very interesting!

Solar fuels photoanode materials discovery by integrating high-throughput theory and experiment. *PNAS*, **2017**, *114*, 3040-3043



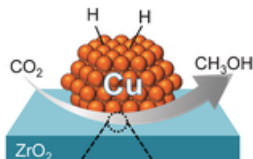
DOI: [10.1073/pnas.1619940114](https://doi.org/10.1073/pnas.1619940114)

Solar thermochemical splitting of CO<sub>2</sub> into separate streams of CO and O<sub>2</sub> with high selectivity, stability, conversion, and efficiency. *Energy Environ. Sci.*, **2017**, Advance Article



DOI: [10.1039/c6ee03776c](https://doi.org/10.1039/c6ee03776c)

CO<sub>2</sub>-to-Methanol Hydrogenation on Zirconia-Supported Copper Nanoparticles: Reaction Intermediates and the Role of the Metal-Support Interface. *Angew. Chem. Int. Ed.*, **2017**, *56*, 2318-2323



DOI: [10.1002/anie.201610166](https://doi.org/10.1002/anie.201610166)

## A-LEAF Kick-off meeting

The first meeting of the A-LEAF project took place at ICIQ, in Tarragona, the 9th and 10th of February. This first encounter allowed the members of the consortium to know each other, advance in the planned collaborations and set the basis for the successful management of the project.



Besides the formal meetings, there was also time for socialization while enjoying a succulent dinner. Just to create a good atmosphere for the hard work to come!



The next consortium meeting will take place in Leiden the next month of July.