



ICFOrians awarded three new ERC Starting Grants

Prof Pelayo Garcia de Arquer and Drs Matz Liebel and Ernest Pastor receive funding to build their own teams and conduct pioneering research

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The European Research Council offers funding schemes directed at researchers at different stages of their careers. Starting Grants target talented scientists with 2-7 years' experience post PhD and a track record showing great promise. It helps them to build their own teams and conduct pioneering research across all disciplines.

408 early-career researchers have been awarded this European Research Council grant in this year's call for proposal, three of whom applied from ICFO. The grants, worth in total €636 million, are part of the EU' Research and Innovation program, Horizon Europe

Prof Pelayo Garcia de Arquer: leader of the CO₂ Mitigation Accelerated by Photons group at ICFO. Prof Garcia de Arquer has been awarded funding to pursue the project *½Nanoscale Advance of CO₂ Electroreduction½* (NASCENT). NASCENT seeks to advance the understanding of electrochemical interfaces using a novel combination of operan

o spectroscopies; and, using this information, program them using atomically design d materials to bring CO₂ electroreduction closer to viability. To a large extent, we are still building catalyst in the dark. We aim to shed light on this process, providing the first full picture of the CO₂ electrochemical interface at industrially relevant current densities. This is crucial to enable a rational catalyst design, with the ultimate goal of improving the performance of this decarbonizing technology.

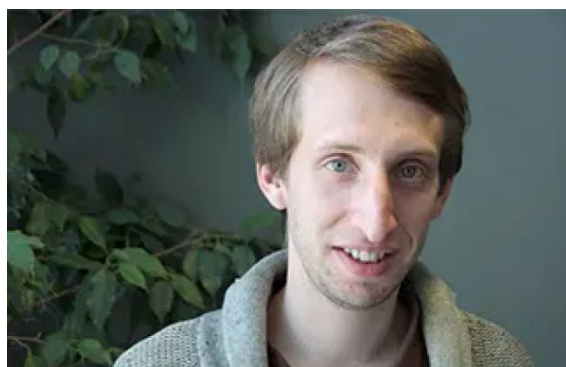
Dr Matz Liebel: currently a research fellow in the Molecular Nanophotonics group at ICFO but soon to move his research pursuits to **VU Amsterdam** (NL). Dr Liebel has been awarded funding to pursue the project **Phototransient InfraRed Holograph** (PIRO). At this critical juncture in his career, Liebel comments, I came to ICFO with an ultrafast nonlinear spectroscopy background and most of my work here revolved around pushing holographic imaging methodologies. I always thought that combining these holographic concepts with ultrafast spectroscopy tools, a rather unusual combination, would allow me to build innovative biomedical imaging platforms that could really impact diagnostics. The ERC grant allows me to see if this prediction is true!

Dr Ernest Pastor: until recently a postdoctoral researcher in the Ultrafast Optical Dynamics group at ICFO and currently conducting research at the **Institute of Advanced Materials** (Castello, ES.) Dr Pastor has been awarded funding to pursue the project **PhotoDefect?**, tailoring lattice oxygen and photo-induced polarons to control reaction mechanisms and boost catalytic activity. When asked what this funding means for his research, he commented, This will allow us to develop new tools to learn how to master photoactive solids. In particular we want to understand how to take advantage of imperfection in solid to boost their catalytic properties. Sometimes these imperfections are unavoidable and negative for performance and we want to learn if we can turn this around and make those defects work for us.

Congratulations Pelayo, Matz and Ernest! We will be watching closely as you progress in these fascinating projects.



Prof Pelayo Garcia de Arquer



Dr Matz Liebel



Dr Ernest Pastor