The goal of the [**MSCA Individual Fellowships**](https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/msca-if-2020%3BfreeTextSearchKeyword%3DMarie%2520Sklodowska-Curie%2520Actions%3BtypeCodes%3D0%2C1%3BstatusCodes%3D31094501%2C31094502%3BprogramCode%3Dnull%3BprogramDivisionCode%3Dnull%3Bf%3D) is to enhance the creative and innovative potential of experienced researchers, wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility. There are two main **requirements of eligibility**to apply for a MSCA-IF:

**1.** Candidates must have a PhD (or equivalent research experience of at least four years’ full time research experience by the time of the call deadline: September 9th 2020)

**2.** Candidates can be of any nationality but must not have lived or worked in Spain for more than 12 months during the three years up to the closing date of the call (September 9th 2020).**u a interested in applying for a**

**If you are interested in applying for a MSCA Individual Fellowship to work on one of our project ideas:**

**1.**Please contact the main supervisor and the research projects unit (jegarcia@icb.csic.es)

**2.**Attach to your e-mail:

* Your curriculum vitae and publication list.
* Letter of motivation and research statement.

Candidates will be pre-selected based on their CV and research statement. Promising candidates will be invited to submit an application to MSCA-IF-2020 with the help of the research projects unit and the main supervisor.

**Supervisor Expression of Interest MSCA-IF Marie Sklodowska Curie Action-Individual**

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| **Supervisor name** | Enrique García-Bordejé |
| **e-mail address:** **Research Group webpage:** | jegarcia@icb.csic.es<https://www.icb.csic.es/grupo/grupo-de-materiales-estructurados-para-aplicaciones-cataliticas/><https://www.icb.csic.es/grupo/grupo-de-nanoestructuras-de-carbono-y-nanotecnologia-gcnn/> |
| **Research Topic:** | CO2 hydrogenation to fuels enabled by catalytic technology |
| **Brief description of the research project idea:**The project will have a focus on the combination of our expertise in catalytic reactors with the synthesis of heterogeneous single metal atom catalyst for CO2 hydrogenation to fuels. Building on our previous contributions, the objective will be to optimize the catalytic performance at lower temperatures by tuning the metal catalyst site and promoting with alkaline metals for CO2 capture.For this mission, we are looking for motivated, independent PD researchers with a background in heterogeneous catalysis with a clear motivation to combine complementary expertise with in-house developed knowledge on structured reactors and CO2 hydrogenation.Prof. Garcia-Bordejé is completely open to alternative project proposals related to the use of thermocatalytic or fotocatalytic technology for CO2 reduction. Ambitious project proposals from highly talented and motivated post-doctoral researchers with strong background in catalysis will be appreciated.Bibliography:* Bustinza, A. et al. Catal. Sci. Technol. 2020. <https://doi.org/10.1039/D0CY00639D>.
* Roldán, L et al. ChemSusChem 2017, 10 (6), 1139–1144. https://doi.org/10.1002/cssc.201601217
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| **Supervisor name** | Enrique García-Bordejé |
| **e-mail address:** **Research Group webpage:** | jegarcia@icb.csic.es<https://www.icb.csic.es/grupo/grupo-de-materiales-estructurados-para-aplicaciones-cataliticas/><https://www.icb.csic.es/grupo/grupo-de-nanoestructuras-de-carbono-y-nanotecnologia-gcnn/> |
| **Research Topic:** | Novel carbon materials for electrocatalysis |
| **Brief description of the research project idea:**The project will have a focus on the combination of our expertise in graphene oxide, graphene aerogels and biomass-derived carbons with the synthesis of heteroatom doped carbons and single metal atom electrocatalyst. Building on our previous contributions, we aim to the use of the novel carbon materials as gas diffusion electrodes for oxygen reduction reaction and water electrolysis.For this mission we are looking for motivated, independent postdoc researchers with a background in electrocatalysis and carbon materials with a clear motivation to combine complementary expertise with in-house developed knowledge on graphene aerogels, biomass derived carbons and electrocatalysis.Prof. Garcia-Bordejé is completely open to alternative project proposals related to the use of graphene aerogels, graphene oxide precursors or biomass-derived carbons in catalysis, electrocatalysis or batteries. Ambitious project proposals from highly talented and motivated post-doctoral researchers with strong background in electrochemistry will be appreciated.Bibliography* García-Bordejé, E. et al. Nanoscale 2018, 10 (7), 3526–3539. <https://doi.org/10.1039/C7NR08732B>.
* Rodríguez-Mata, V. et al. ACS Appl. Nano Mater. 2019, 2 (3), 1210–1222. <https://doi.org/10.1021/acsanm.8b02101>.
* Rodríguez-Mata, V et al. Energy Storage Mater. 2020, 25, 740–749. <https://doi.org/10.1016/j.ensm.2019.09.012>.
* Roldán, et al. Catal. Tod.,2018, 301, 2–10. https://doi.org/10.1016/j.cattod.2016.12.020.
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