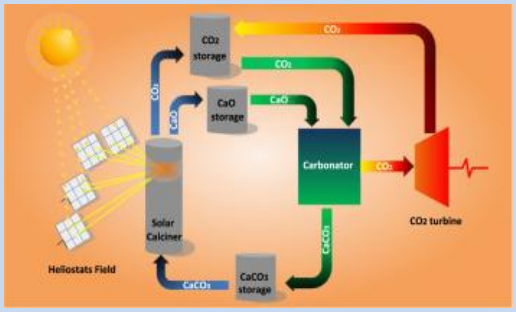
CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

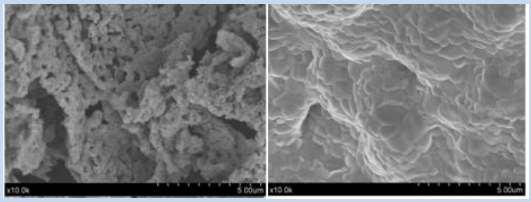
INSTITUTO DE CIENCIA DE MATERIALES DE SEVILLA

UNIVERSIDAD DE SEVILLA

PhD Position

THERMOCHEMICAL ENERGY STORAGE SYSTEMS (TCES) FOR INTEGRATION IN CONCENTRATED SOLAR POWER (CSP) PLANTS





The Calcium Looping process (CaL), based upon the reversible carbonation/calcination of $CaO/CaCO_3$, stands as the most promising system for integrating TCES with Concentrated Solar Power (CSP) plants. However, in order to fully develop the huge potential of the $CaO/CaCO_3$ system to store energy, the progressive deactivation of the material with ensuing cycles due to sintering at high temperatures has to be minimized.

The Reactivity of Solids Groups at the ICMS offers a Spanish FPI studentship associated to the CTQ2017-83602-C2-1-R project to develop a 4-year PhD. We offer the possibility of starting a scientific career in a hot scientific and technological research area, joining an experienced and multidisciplinary team with several active international partners. We will provide training and help to the candidate to achieve success in the PhD and publish articles in high impact journals. The candidate will study the influence of different experimental parameters on the reversible $CaO/CaCO_3$ reaction at lab scale, making use of several experimental and characterization techniques. He will also help exploring novel thermochemical energy storage systems.

REQUIREMENTS: The candidate should have a master's degree in chemistry, physics or related engineering. Ability to work independently and as part of a team, in collaboration with other groups. Previous experience in the field and availability to travel would be advantageous. Good verbal and written communication skills in English.

APPLICATION: Send CV, pdf of degree records with grades and references if possible to:

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