

## A SUSTAINABLE PATH TO METHANE CONVERSION BY ADVANCED ELECTROCHEMICAL TECHNOLOGIES

As a part of the New Energies Research Center (NERC), a joint initiative from FAPESP and Shell, this Research Division 3 - Methane to Products (RD3) is built to grow as a world-class scientific center for research on advanced technologies for methane conversion to high-value products. In this context, RD3 addresses potentially disruptive technologies to tackle methane conversion beyond traditional catalytic or biological routes. The proposed division covers a broad range of topics that comprises a sustainable path for transforming methane to a feedstock using photo and electrochemical processes. The RD3 is based on the association of two leading institutions of São Paulo metropolitan area: Instituto de Pesquisas Energéticas and Nucleares (IPEN) and Universidade Federal do ABC (UFABC). This two institutions ensure their strong commitment to the NERC by: i) the collaborative effort of a highly trained and experienced research team that will address cutting-edge topics on the methane conversion in the RD3; iii) allocating the existing infrastructure of participant laboratories, the institutional facilities, and technical staff to carry on the planned research; ii) effectively supporting administrative activities to unburden the scientific team; iii) keeping a strong link between research and education in both undergraduate and graduate levels, and iii) providing the personnel and organization for dissemination and intellectual property actions. The RD3 team recognizes the gigantic challenges proposed by the NERC for the development of scientific knowledge and technological advances for methane conversion. In that context, the research group of RD3 has teamed up with leading academics from other countries to extend the scientific capabilities. Therefore, RD3 is organized to deliver relevant results in a broad range of activities that includes world-class research, technology transfer, and education, to be an effective partner of the New Energies Research Center.

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### ABOUT THE PROJECT

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