

CIC energiGUNE is a private non-profit foundation, located in the Alava Technology Park and a member of BRTA (BASQUE RESEARCH & TECHNOLOGY ALLIANCE). Today, it is considered one of the top 3 reference centers in Europe, thanks to the positioning of its research lines, its research team and its state of art characterization, testing infrastructure, and prototyping ...

Research groups. Strategic knowledge areas in thermal storage; Research Lines. Thermal storage technologies and applications we work on; Scientific Committee of Thermal Storage; Platforms and Facilities. Find out about the best prototyping and characterization platforms in energy storage in Southern Europe; Research with us

The energy transition to a renewable and sustainable generation will be the solution to reduce greenhouse gas emissions and thus achieve the European Commission's goal of becoming the world's first decarbonized economy.. This is why energy storage becomes indispensable, since it makes more flexible the intermittence of green energy generation ...

Energy Storage Reports and Data. The following resources provide information on a broad range of storage technologies. General. U.S. Department of Energy's Energy Storage Valuation: A Review of Use Cases and Modeling Tools; Argonne National Laboratory's Understanding the Value of Energy Storage for Reliability and Resilience Applications; Pacific Northwest National ...

CIC energiGUNE, the Basque research center of reference in battery storage, thermal energy solutions and hydrogen technologies, and member of the Basque Research & Technology Alliance-BRTA, participates in the European project SEATBELT, included in the Horizon Europe call of the European Commission, with the objective of facilitating the ...

The aim of research line is to leverage our comprehensive knowledge of sodium-based batteries (Na-based batteries) technology (from the fundamental to the upscaled proof-of-concept) for the rational discovery, design, and optimization of key materials (capacity, voltage, cyclability, etc.). Therefore, Na-based batteries can be optimized for different cost-effective energy storage ...

CIC energiGUNE, a reference research centre in Europe in the field of electrochemical and thermal energy storage, has become part of the ALISTORE-ERI (European Research Institute) network, which brings together 20 research centres and 12 companies from Europe around advanced research in energy storage and its transfer in the short and medium ...

Finally, and beyond research, the development of system-level applications for new thermal energy storage materials is fundamental to bring these technologies to market. At this point, work is underway to develop

engineering and prototyping of integrated systems to provide practical and scalable solutions for industry. This includes the creation of thermal storage ...

CIC energiGUNE, the Basque research center of reference in electrochemical energy storage, thermal energy storage and conversion and hydrogen technologies, has been ranked as the most important Research Foundation in Europe and Latin America in the field of Energy, according to the SCImago ranking, the main international reference for the classification of research entities ...

CIC energiGUNE, the Basque research center of reference in battery storage, thermal energy solutions and hydrogen technologies, and member of the Basque Research & Technology Alliance-BRTA, has reached a maximum success rate in the Horizon Europe call of the European Commission for the promotion of projects related to the development of high ...

In the past few decades, electricity production depended on fossil fuels due to their reliability and efficiency [1]. Fossil fuels have many effects on the environment and directly affect the economy as their prices increase continuously due to their consumption which is assumed to double in 2050 and three times by 2100 [6] g. 1 shows the current global ...

4 &#0183; NREL provides storage options for the future, acknowledging that different storage applications require diverse technology solutions. To develop transformative energy storage solutions, system-level needs must drive basic science and research. Learn more about our energy storage research projects.

CIC energiGUNE, the Basque research centre of reference in electrochemical and thermal energy storage and a member of the Basque Research & Technology Alliance-BRTA, will broaden, as of this school year, its relationship with the master Materials for Energy Storage and Conversion MESC+ Erasmus Mundus, one of the most internationally prestigious and ...

NMR for thermal energy storage processes. Also very relevant is the work that our platform is carrying out for thermal energy storage processes these systems, NMR measurements are used over a wide range of temperatures to understand the kinetic processes involved in the entropy and enthalpy changes that occur during certain phase changes. In ...

Give us more details of what you do in your research area. What challenges do you see? Energy is crucial for prosperity, and renewable energy is an intrinsic part of all sustainable energy concepts of the future. In this context, batteries are key to store electrical energy for mobile and decentralized stationary applications. With the strongly increasing ...

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