heliotrope

Highly efficient and low-impact **innovative thermal storage system** for enhanced dispatchability in concentrated solar tower plants (CSP)



Pushing CSP beyond today's Temperature limtis

HELIOTROPE is developing innovative high-temperature thermal energy storage technologies to make CSP plants more efficient, dispatchable and sustainable.

The project combines novel molten salts, advanced materials and protective coatings to enable CSP systems to operate beyond the current state-of-the-art temperature range.

HIGH-TEMPERATURE STORAGE

Novel sustainable molten salts for more efficient thermal energy storage.

ADVANCED MATERIALS

New alloys and coatings designed for demanding high-temperature CSP environments.

NEAR-ZERO CORROSION

Innovative materials, coatings and corrosion-control approaches to improve durability and reduce degradation.

UP TO 850ºC

Advanced receiver materials and coatings designed to withstand absorber surface temperatures of up to 850ºC.

PROJECT AT A GLANCE

2024–2028 - Horizon Europe

Coordinated by
Universidad Complutense de Madrid

Scan to discover heliotrope

PARTNERS

Universidad Complutense de Madrid · DLR · Tekniker (Member of Basque Research & Technology Alliance) · INTA · Ciemat (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas) · VDM Metals (A company of ACERINOX)

cobra · zabala (Innovation) · exera · BrightSource · AALBORG CSP (Changing Energy)

This project has received funding from the European Union's Horizon research and innovation programme under grant agreement No 101147455. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union.