

Dual Integrated LIBS Systems for Real-Time, High-Precision Material Classification

Fact sheet

Description of the result

Two integrated LIBS systems deliver high-precision, spectroscopic real-time analysis and classification of a broad range of materials. By performing multiple measurements at different surface locations, the systems maximise reliability and reproducibility. In addition, a powerful cleaning pulse can be applied to remove oxide layers or contaminants, ensuring consistently accurate, reliable, and truly representative analytical results under even the most demanding industrial conditions.



Main features & benefits

Fully automated classification of materials for sorting, adaptable to varying grain sizes, weights, and surface conditions. The system offers flexible throughput rates depending on the applied separation methodology, ensuring optimal performance, efficiency, and precision across a wide range of industrial sorting applications.



Funded by
the European Union



Problem addressed

Real-time analysis of LIBS spectra on moving targets ensures high material throughput, even when dealing with strongly inhomogeneous materials featuring diverse chemical compositions, surface irregularities, or dust deposits, thereby guaranteeing accurate classification under challenging industrial conditions.

Contact & Further Information

 www.project-resource.eu
 project-resource@rhimaginesita.com



This project is funded by the European Union's Horizon Europe Framework Program (HORIZON) under the Grant Agreement Number: 101058310



Funded by
the European Union



Dual Integrated LIBS Systems for Real-Time, High-Precision Material Classification

Fact sheet



Target users /stakeholders

Spent refractories, demolition waste, general recycling or sorting application in industries and R&D.



Who Is Leading the Development?



Scan to learn more about LSA



Exploitation potential

Sorting applications in recycling and raw materials industries



Technical facts

Based on a 2-Shift reducing CO₂ up to 1.5 kt, Energy saving of 1.43 GWh and 509.4 m³ landfill reduction annually. Significantly increase of the measuring accuracy and repeatability. Reach out for further information and more technical data.



Scan to learn more about LIBS across industries

Contact & Further Information

 www.project-resource.eu
 project-resource@rhimagnesita.com



This project is funded by the European Union's Horizon Europe Framework Program (HORIZON) under the Grant Agreement Number: 101058310



Funded by
the European Union