

Development of new methodologies for industrial CO2-free steel production by electrowinning



SIDERWIN project addresses the application of electricity to decompose directly iron oxide into iron metal and oxygen gas.

Oxygen gas evolved as a by-product



An intensive production that

A flexible and robust processing step owing to low temperature operation

overcomes the limitations of the conventional electrowinning route

Supply of iron oxides from residues generated by other industrial activities

A process responsive to its energy and resource surrounding environment

Plants connected to the electricity grid to reinforce the integration of renewables



By achieving its full electrification, primary steel production come close to the maximum energy and resources conservation.

It thus achieves full decarbonization of an activity accounting for 7 to 9% of global anthropic CO_2 emissions.











N-SIDE



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