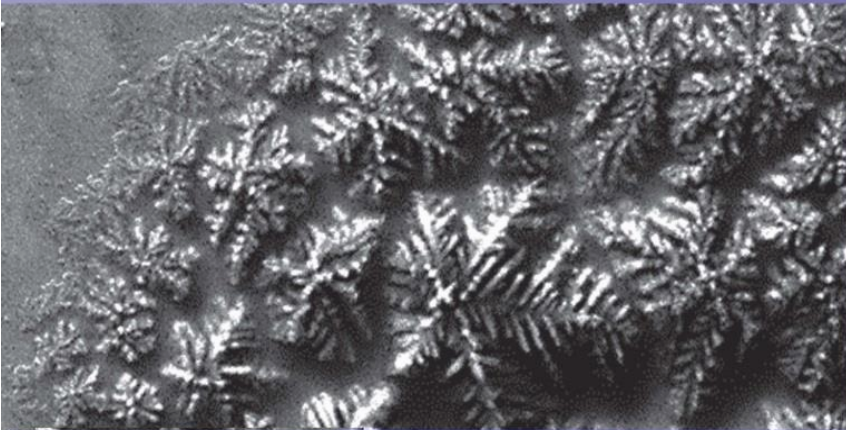# Matériaux & Techniques

Call for papers

Themed Issue on

'Overview, state of the art, recent developments and future trends regarding Hydrogen route for a green steel making process'

Guest Editors:

Dr. Ismael Matino, Scuola Superiore Sant'Anna, Pisa, Italy

Dr. Valentina Colla, Scuola Superiore Sant'Anna, Pisa, Italy

Background

Carbon neutrality of steel sector is the main topic of the Clean Steel Partnership fully in line with the European Green Deal. Carbon Direct Avoidance is one fundamental CO_2 mitigation pathway. Steel production based on Hydrogen or the exploitation of H_2 for further uses such as the valorisation of CO_2 coming from process off-gases are key factors to improve the green footprint of steel industry; they are strictly linked to low carbon H_2 production, norm and standardisation. The synergic use of low carbon H_2 instead other fossil fuels in both routes, Blast Furnace (BF) - Basic Oxygen Furnace (BOF) and Direct Reduction (DR) - EAF, and the complementary role of these routes can significantly contribute to the decrease of the GHG overall emissions.

Aim and Scope of the Themed Issue

The aim of this special issue is to achieve the following goals:
• Provide an overview of the state of the art, best available technologies, economic, social and legislation aspects related to Hydrogen exploitation in the steel industry,
• Highlight existing issues to be addressed for the acceleration of Hydrogen application in the steel sector,
• Provide elements based on shared experiences, to solve the existing issues and to identify main key aspects to be addressed in future R&D&I projects.

The articles will be based on contributions presented in the H2GreenSteel Web-Workshop (https://www.estep.eu/events/estep-h2-greensteel-online-workshop/)

Submissions

All relevant papers will be carefully considered, peer reviewed by a distinguished team of international experts, and published in accordance to the Journal's standard policies. Full research papers, technical papers and review articles can be submitted online via the journal's submission and peer review site. Please register choosing the title of the special issue 'Overview, state of the art, recent developments and future trends regarding Hydrogen route for a green steel making process'

Please find the instructions for authors at: **https://www.mattech-journal.org/author-information/instructions-for-authors**

Submission deadline – July 31st 2021

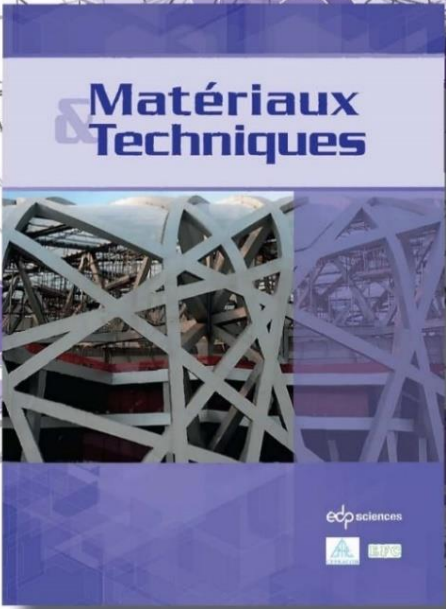Article submission and editorial system **here**.

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