IN-PART DISCOVER

Industry Call for Opportunities

Processes of Green Carbon Removal from Refractories for Recycling

Carbon bonded bricks are widely used refractory bricks in the steel industry. They are produced from burned, inorganic raw materials, graphite, and binders (pitch or PF resin) via a tempering process. For recycling, tempered bricks (carbon containing) have a higher availability than fired bricks of a similar chemical composition and the presence of carbon limits its reintroduction into the production chain. **RHI Magnesita GmbH**, a global leader in the refractory industry, is **looking to develop or match a green process to convert carbon bonded secondary refractory raw materials into usable materials**.

Approaches of Interest

- Specific interest in the recycling of materials and the removal of components (i.e., carbon) from bricks
- Mechanical, (bio-) chemical, hydrometallurgical or pyrometallurgical process technology, including solvent chemistry (organic or inorganic), biotechnology or pyrolysis. Processes that are cost-effective are of the highest interest
- Must include environmentally friendly processes e.g., low CO2 footprint, low emissions (water, air)
- Treatment as coarse as possible e.g., limited size reduction, low fines
- Ideally, carbon is recuperated as a side product
- Process can be inserted along the recycling process e.g., collection, sorting, comminution (<10mm), classification or reuse

Stage of Development

- Processes that are currently at the pilot technology stage are of the highest interest, however opportunities at a lower research stage/TRL3-4 with validation will also be considered

Submission Information

Submission of one page, 200-300 word briefs are encouraged, along with any optional supplementary information e.g., relevant publications and patents. In submitting to this campaign, you confirm that your submission contains only non-confidential information.

Opportunity for Collaboration

RHI Magnesita GmbH is open to a range of collaboration opportunities, with the most appropriate outcome being decided on a case-by-case basis. Example outcomes include licencing assets, research collaborations, and project/PhD funding.

Opportunities sought

- Technologies
- Centres of excellence
- Spinout companies
- Academics and expertise
- Research projects

Submissions

Please submit relevant, non-confidential opportunities online via: discover.in-part.com

Deadline: **3rd May 2022 - 10:59 pm GMT**

Have any questions?
Contact our team at discover@in-part.co.uk

RHI MAGNESITA

RHI Magnesita GmbH is the leading global supplier of high-grade refractory products, systems, and solutions. The company is pursuing an innovative and industry-leading path in technological development and sustainability, including CO2 emissions reduction technology.