

Seeking Novel Technologies for the Electrochemical Decomposition of Ammonia to Hydrogen and Nitrogen



Topsoe, a global leader in energy decarbonization and emission reduction, is seeking novel technologies for the **electrolysis of ammonia**. Specifically, the team is looking for a collaborative partner with **novel materials, methods, or equipment for the electrochemical conversion of liquid or aqueous ammonia to hydrogen and nitrogen**. Additional information on the team's interests can be found [here](#).

Approaches of Interest:

- Novel electrocatalytic materials (e.g. coated electrodes, wire meshes, etc.)
- Screening materials for the reaction of interest under moderate pressure (5 – 10 bar)
- Fabrication of separators that are stable under the reaction conditions
- Technologies developed for other reactions that could be applied to ammonia electrolysis
- Theoretical or computational methods that highlight potential candidate material
- Opportunities that have the capability to perform research with both aqueous and liquid ammonia are of highest interest
- Reactions with an overpotential below 0.5 V are of particular interest

Out of Scope:

- Technologies related to other methods of decomposition of ammonia (e.g. thermo-catalytic cracking, plasma cracking)
- Methods involving using ammonia from wastewater or at low (<1%) ammonia concentrations

Developmental Stages of Interest:

- Opportunities at all technology readiness levels (TRLs) are of interest for this campaign provided there is a theoretical basis to the proposal
- Proposals that demonstrate a higher TRL will be prioritized





Submission Information

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

Opportunity for Collaboration

Our client is open to a range of collaboration opportunities, with the most appropriate outcome being decided on a case-by-case basis. Example outcomes include licensing assets, project/PhD funding, and research collaborations. Topsoe requires access to existing IP or first refusal on IP arising from research. Research projects that have access to matched funding from another research body will be prioritized.

Opportunities sought

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

Submissions

Please submit relevant, non-confidential opportunities online [here](#)

Deadline: **1st July 2024 - 10:59 pm GMT**

Have any questions?

Contact our team at discover@in-part.co.uk

