

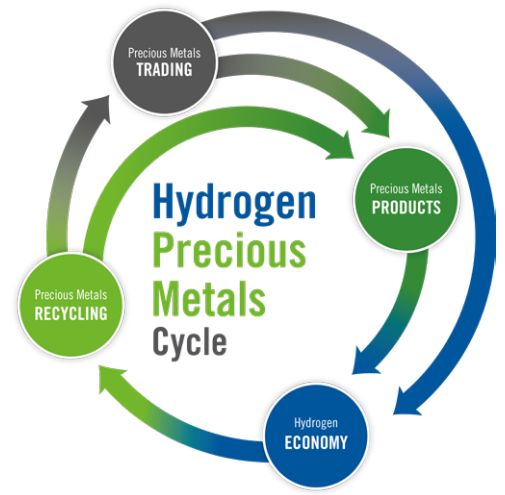
Actydon | Loop

Circularity for the Hydrogen Economy

Maximizing the re-use of secondary raw materials with Actydon I Loop.

With the ramp-up of the hydrogen economy, the demand for the recycling of important metals like platinum, iridium or ruthenium from production scrap as well as end-of-life materials will rise significantly.

Already today, Heraeus recycles precious metals in the fuel cell and electrolyzer sector with high precious metal return rates by processing end-of-life materials as well as production scraps and production wastes, like inks and pastes.



Four steps to tackle the circularity in the hydrogen economy



Return Structure

A well-organized return structure is crucial for effectively managing material flow and reducing precious metal losses. It encompasses the collection and logistics of materials at the end of their service life to bring them into the recycling cycle.

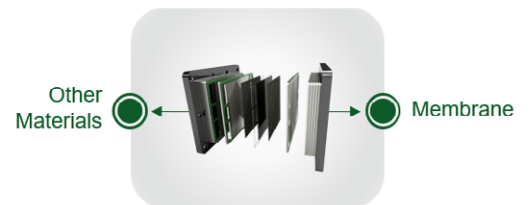
Processing & Pre-Treatment:

Actydon I Loop Stack

We can already separate the various materials used in an electrolyzer or a fuel cell from each other in such a way that they can be directed to their respective recycling streams.

Is your design optimized for good recyclability? Let's discuss what you can do today to avoid problems at end-of-life.

Dismantling | Sorting | Separation

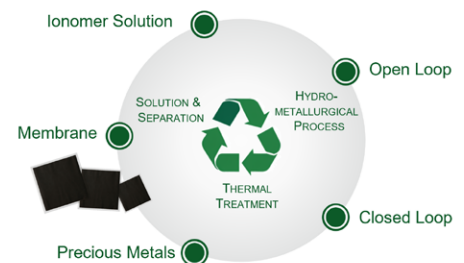


Recycling & Refining:

Actydon I Loop Scrap

Actydon I Loop MEA

After separating the material fractions, the corresponding materials need to be recycled in order to reintroduce them into the cycle in the final step. No matter if you go for the proven precious metal recycling via incineration or also want to retrieve the valuable ionomer in recycling, Heraeus helps you with decades of experience and innovative solutions.



Reutilization:

The materials are reused to produce the next generation of applications in the field of hydrogen or for other purposes. Your retrieved precious metals will be transferred to your pool account, ready to use for new products, physical delivery or you can sell it to us to retrieve your capital invest.

