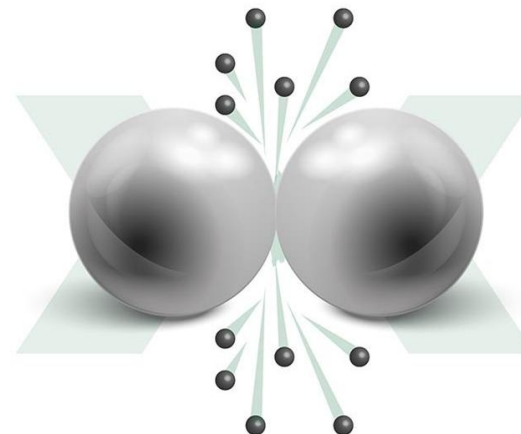




Harnessing Mechanochemistry for Complex Waste Challenges Globally

June 2025

***Solution Focused
Technology Supplier***





Project Overview

Persistent Organic Pollutants

Destroying hazardous organics listed on the Stockholm Convention.

PFAS

Demonstrating the capability of mechanochemistry to destroy PFAS in soil and obsolete products.

Asbestos

Development of EDL's technology to recycle asbestos containing materials.

Materials Processing

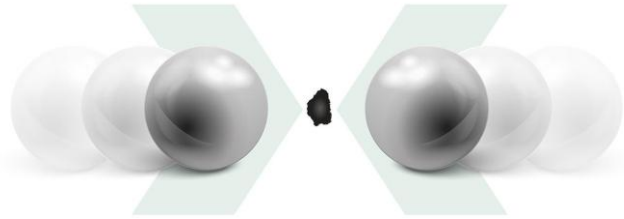
Transforming low value materials, and even wastes, into high value powdered products.

Nuclear Waste

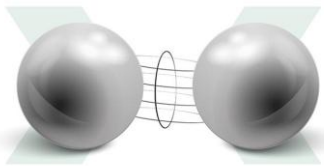
Development of mechanochemical solutions for nuclear waste, including liquid organics, asbestos, and sorbents.



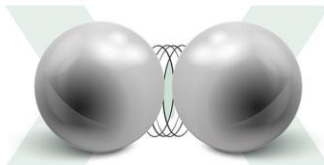
Technology Capabilities



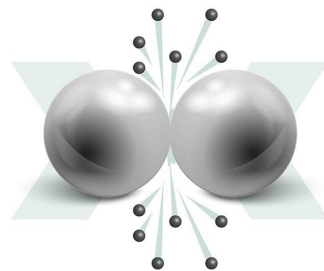
High Velocity Impact



Elastic Deformations



Plastic Deformations



Fracture

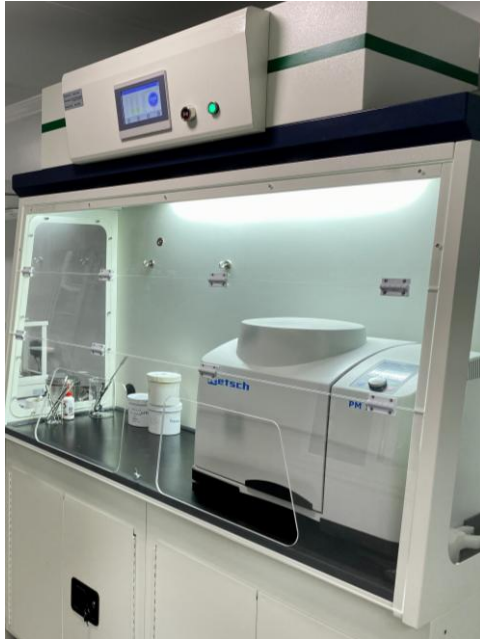
Mechanochemical Destruction (MCD), as a hazardous waste treatment process.

- Emerging solution for multicomponent wastes.
- A *Green Chemistry* approach.
- Non-thermal, solid-state, solvent-free.
- Scalable.
- Modular.

Requires progressive validation for emerging challenges.

Scale Up Capability

Benchtop



Efficacy, kinetics.
Technology capability.

Intermediate



Scalability, 10-50 kg.
Efficacy.

Demonstration



Optimisation at continuous
flow, 0.5-2.0 t/h.

*Deployable
System*

PFAS Destruction



POPs Destruction



Asbestos Destruction



Nuclear Waste Treatment



Mussel Shell Valorisation



Operational Plants



A large industrial facility, likely a laboratory or manufacturing plant, featuring a prominent open furnace with thick concrete walls and a blue metal frame. To the right, there is a complex system of stainless steel processing equipment, including hoppers and mixers, with a green oil drum nearby. The background shows a high ceiling with industrial lighting and a white door.

Next Steps



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