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Beryllium Resource and it's Stably Securing

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In the Fusion Energy, large quantities of beryllium are essential. Tritium as fuel is self-produced in the blanket covering the plasma during operation. Beryllium is essential for the blanket as it multiplies neutrons and produces more tritium. Fusion reactors require more than 350 metric tons of beryllium based on the blanket design. However, there are big issues for beryllium procurement. One is overpriced, other is insufficient production in the world.

MiRESSO has the novel process with cost reduction. MiRESSO has established a low-energy dissolution with low temperature at 300°C. It is the combination process between a base fusion method for dissolution of insoluble substances and a microwave heating. In this first process, Beryl as insoluble composition is changed to soluble composition. Then, in the next process, Beryllium completely dissolve by acid solution at room temperature under normal pressure.

Business outlines of MiRESSO are "Production and sales of Beryllium" and "Licensing & consultation for energy saving and CO2 emission reduction of refining and recycling process with high temperatures". We aim to do a contribution to social and economic security by stably securing mineral resources. MiRESSO came from Mineral Refining and Recycling System Society and established last year.

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