



Rare Earth Element Extraction from Coal

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Summary

The University of North Dakota has developed a method of extracting rare earth elements from coal. The method includes adding acid to coal to produce residual coal and a leachate. The leachate contains rare-earth elements including Neodymium (Nd), Europium (Eu), Terbium (Tb), Dysprosium (Dy) and Yttrium (Y). The leachate is further processed to remove the rare earth elements. The residual coal can be used for a variety of other purposes.

Advantages

- Particularly well-suited for low rank coals including Leonardite coal, which can be found in the Williston Basin of North Dakota
- Domestic source for rare earth elements and new use for coal
- Residual coal can be utilized as a source of activated carbon or burned for energy
- Technology demonstrated through extensive work

Inventors

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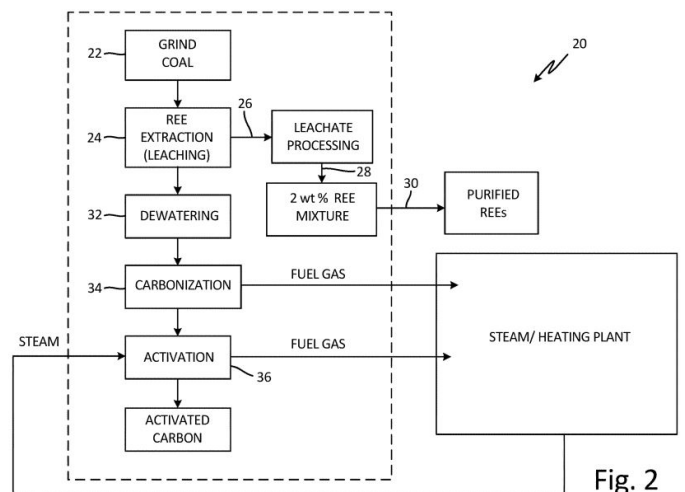


Fig. 2