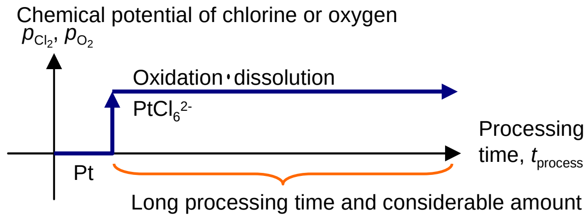
Efficient Recovery Process of Precious Metals

New Environmentally Sound Recovery Process of Precious Metals Using Reactive Metal and Chloride Vapor Treatment

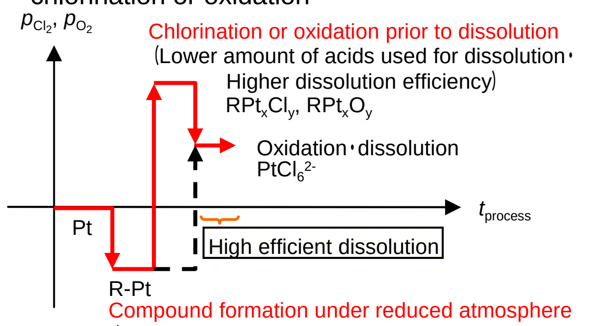
New hydrometallurgical recovery process of precious metals

Comparison between conventional process and new process

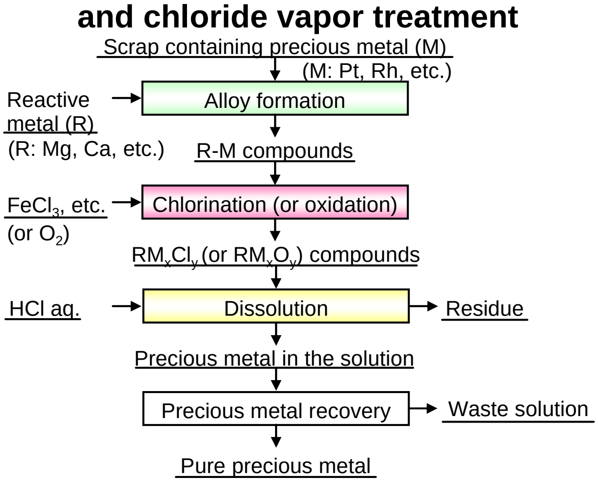
(a) Conventional leaching process



(b) Reactive metal treatment followed by chlorination or oxidation



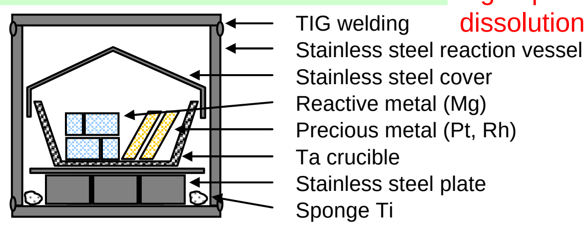
New recovery process for precious metals using reactive metal and chloride vapor treatment



Experimental procedure and results

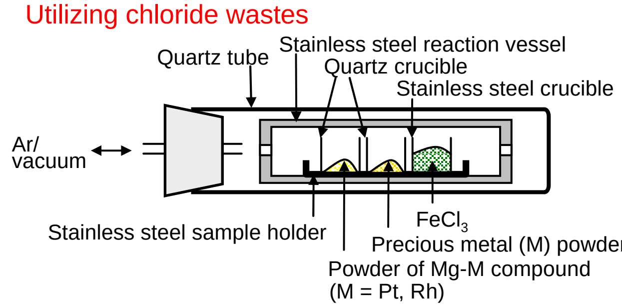
Synthesis of R-M compounds

Selective and high-speed dissolution

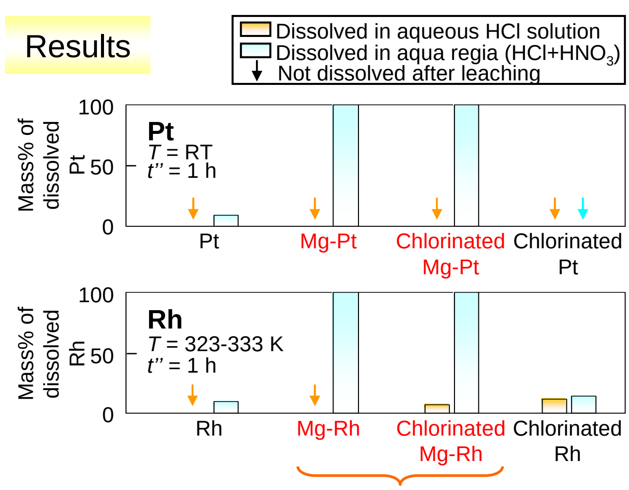


Chlorination of R-M compounds

Minimizing amount of toxic waste solution
Utilizing chloride wastes



Results



Dissolution efficiencies in aqua regia after alloy formation and chlorination were significantly enhanced.

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2005/11/15
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