

Title: Generating electricity ad infinitum for electric vehicles using a scalable canisters economy

Abstract:

Idea for generating electricity ad infinitum for electric vehicles using a scalable canisters economy using powdered Sodium or Lithium in a hermetically sealed stainless steel reaction chamber, water mist and a hydrogen outlet to be used in a fuel cell.

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Powdered Sodium metal inside a hermetically sealed (preferably Stainless Steel) reaction chamber with a water mist inlet and a hydrogen gas outlet. The Hydrogen could be used in a fuel cell to generate electricity to power electric vehicles and portable electric motors.

Engine vibrations because of a moving vehicle shall aid complete reaction of the sodium powder and water. Fuel cell efficiency reaches 60-80%, whereas Electrolysis has an efficiency of 60-70%. Innovations could bring these respective efficiencies further up for this renewable technology.

Further advancements could be had by having gaseous hydrogen adsorped in the Sodium/Lithium Metal as Sodium/Lithium Hydride, enhancing the hydrogen output per canister.

An economy of scale could be had for those closed utensil-grade stainless steel canisters to have sodium metal powdered to be added with water, use up the metal, until only sodium hydroxide is left, return the used canister like used LPG cylinders are returned after use. Have an electrolytically operating units re-convert the Sodium Hydroxide back into Sodium metal and then put back into another canisters in powdered form for next round of usage.

Long tropical coastline and solar (wind or wave) electricity and possibly a catalyst to restore that sodium hydroxide back to sodium metal to be reused ad infinitum. Lithium could be used in the place of sodium. Usage of Lithium would cause the resultant cylinders to be much lighter, and recovery of Lithium from Lithium Hydroxide is far more economically viable and far less environment-damaging than recovering Lithium from Lithium batteries.

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