

# [Follow-up] Genepax President Interviewed on 'Water Energy System'

Jun 16, 2008 19:38 Kouji Kariatsumari, Nikkei Electronics



[Genepax's new fuel cell system](#)

Kiyoshi Hirasawa, president of Genepax Co Ltd, unveiled part of the reaction mechanism of the company's new fuel cell system called "Water Energy System" in an interview with Nikkei Electronics.

The system, which is capable of generating power with water and air, was first presented June 12, 2008. As reported in our previous article, the system produces hydrogen through a chemical reaction between water and a metal (or a metal compound) on the fuel electrode side. Genepax uses a metal or a metal compound that can cause an oxidation reaction with water at room temperature, the company said. Metals that react with water include lithium, sodium, magnesium, potassium and calcium. The main feature of the Water Energy System is that it can be operated for a longer period of time by controlling the reaction of the metal or the metal compound, the company said.

According to Genepax, the metal or the metal compound is supported by a porous body such as zeolite inside the fuel electrode of the membrane electrode assembly (MEA). The products of the hydrogen generation reaction dissolves in water, and the water containing them will be discharged with water inside the system. Upon the completion of the reaction, the generation of hydrogen and power stops.

Considering the commercialization of the system, Genepax is conducting evaluation tests and plans to release test data.