

# Effective Utilization of By-product Oxygen at Hydrogen Production by PEM

Takeyoshi Kato, Mitsuhiro Kubota, Noriyuki Kobayashi  
and Yasuo Suzuki

Nagoya University, Nagoya, Japan  
Corresponding author: <tkato@nuee.nagoya-u.ac.jp>

A cost for producing hydrogen by using PEM is high as compared with the other mature technologies such as a steam methane reforming. We focus on an effective utilization of by-product oxygen, which might bring a various merit on hydrogen production by PEM. In terms of economy, we compare the estimated cost of hydrogen which can be used for PEFC-CGS in a hospital and the actual cost of oxygen for medical use. In terms of energy efficiency, we evaluate the total efficiency of the energy system including a PEFC-CGS and a coal power plant using pure-oxygen.

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