Improving MEA Durability by Using a Catalyst with a Small Number of Functional Groups on Its Surface

Toshihiro Tanuma* and Shinji Terazono
Asahi Glass Research Center, 1150 Hazwa-cho, Kanagawa-ku, Yokohama 221-8755

(Received September 7, 2006; CL-061039; E-mail: toshihiro-tanuma@agc.co.jp)

In order to improve the durability of MEAs, surface functional groups on catalysts were focused. It was found that functional groups such as hydroxy and carboxyl groups are responsible for the OCV degradation of MEAs. By applying a heat-treated catalyst, which has a small number of functional groups on its surface, to both cathode and anode of an MEA, the OCV durability was drastically improved.