

Shuichiro Hirai

Position/Department/Division/Institution/Organization

Professor, Department of Mechanical Engineering, School of Engineering, Tokyo Institute of Technology

Country

Japan

Career history

Research Associate, Osaka Univ. (1984)

Associate Professor, Tokyo Institute of Technology (1993)

Professor, Tokyo Institute of Technology (1998)

Awards/Publications

- Fumiya Akitomo, Takashi Sasabe, Toshihiko Yoshida, Hiroshi Naito, Katsuyuki Kawamura, Shuichiro Hirai. Investigation of effects of high temperature and pressure on a polymer electrolyte fuel cell with polarization analysis and X-ray imaging of liquid water, *Journal of Power Sources*, Vol. 431, Page 205-209, Aug. 2019.
- Suguru UEMURA, Takashi SASABE, Yuichiro TABUCHI, Junko KURIHARA, Ting Chu JAO, Shuichiro HIRAI. In situ analysis of lithium-ion secondary battery using low-energy X-ray microscopy, *Mechanical Engineering Letters*, Vol. 5, Page 18-00452, Mar. 2019.
- Suguru Uemura, Toshihiko Yoshida, Maito Koga, Hidetoshi Matsumoto, Xiaoqi Yang, Kazuhiko Shinohara, Takashi Sasabe, Shuichiro Hirai. Ink Degradation and Its Effects on the Crack Formation of Fuel Cell Catalyst Layers, *Journal of The Electrochemical Society, The Electrochemical Society*, Vol. 166, issue 2, F89-F92, Jan. 2019. Official location
- M. Koga, H. Matsumoto, M. Tokita, H. Masunaga, T. Hikima, H. Sugimori, T. Sasabe, T. Yoshida, K. Shinohara, S. Hirai. Investigation of drying process of catalyst ink for polymer electrolyte fuel cells by grazing-incidence X-ray scattering, *AiMES 2018, ECS Trans., The Electrochemical Society*, Vol. 86, No. 13, pp. 157-161, Sep. 2018. Official location
- S. Uemura, T. Yoshida, M. Koga, H. Matsumoto, K. Shinohara, S. Hirai. Ink Degradation Phenomena and Its Impact on Crack Formation of Fuel Cell Catalyst, *AiMES 2018, ECS Trans., The Electrochemical Society*, Vol. 86, No. 13, pp. 151-156, Sep. 2018. Official location
- Yuki Kameya, Norio Iriguchi, Toshihiko Yoshida, Takashi Sasabe, Shuichiro Hirai. Molecular diffusion and mobility characterization in ionomer/catalyst, *Colloid and Polymer Science, Springer-Verlag GmbH Germany, part of Springer Nature* 2018, Sep. 2018. Official location

Innovation for Cool Earth Forum (ICEF)

6th Annual Meeting

October 9-10, 2019

Hotel Chinzanso Tokyo, Japan

- Suguru UEMURA, Keisuke YASUDA, Yukihide ITO, Mutsuhiro ITO, Shuichiro HIRAI. Visualization of water adsorption/desorption phenomena in silica-gel particle by microfocus X-ray transmission imaging, Mechanical Engineering Letters, Vol. 4, Page 18-00053, May. 2018.
- Suguru Uemura, Yuki Kameya, Norio Iriguchi, Toshihiko Yoshida, Kazuhiko Shinohara, Shuichiro Hirai. Communication—Investigation of Catalyst Ink Degradation by X-ray CT, Journal of The Electrochemical Society, The Electrochemical Society, 165, (3), F142-F144, Feb. 2018.

Areas of expertise

Energy engineering, thermal engineering