

2002/6/21 Release

Hitachi paper 2nd most cited in ECS journals - Announced by the Electrochemical Society in their centennial celebrations -

The Electrochemical Society, as part of its centennial celebrations, conducted a citation search of the 25 most cited articles in ECS journals since 1945. A paper presented in 1986 by Dr. Akitoshi ISHIZAKA, currently Senior Researcher, ULSI Research Department, CRL, and Prof. Yasuhiro SHIRAKI (formerly of CRL Sr. Researcher; currently Univ. of Tokyo), entitled "Low Temperature Surface Cleaning of Silicon for MBE, " (J. Electrochem. Soc., 133, 666), was found to be the 2nd most cited paper.

No.1 Reaction Rate in Ionic Solutions, Peter J. W. Debye, Trans. Electrochem. Soc., 82, 265(1942).

*No.2 Low Temperature Surface Cleaning of Silicon for MBE, Akitoshi ISHIZAKA & Akihito SHIRAKI,
J. Electrochem Soc., 133, 666 (1986).*

No.3 The Shape of Electrochemical Polarization Curves, M.Stern and A. L. Geary, J. Electrochem Soc., 104, 56 (1957).

This paper covers "Silicon surface cleaning technology", which is still widely used by researchers involved with MBE (Molecular Beam Epitaxy) and STM (Scanning Tunneling Microscopy), and is referred to as the "Shiraki-Ishizaka" method after the co-authors. The 1st and 3rd most cited papers were published over 40 years ago, in 1942 and 1957, respectively, indicating the impact that the Ishizaka-Shiraki paper had, through its large number of citations by researcher worldwide over a relatively shorter period of time.