

In Paper 1C6 by J. P. Dalbera, C. Hinnen, P. Lengler and A. Rousseau (Meudon-Bellevue) the potentiodynamic sweep measurements of this group have been augmented by spectrophotometric studies and it has been shown that this latter technique can be employed as a useful indicator of changes of hydrogen content. In regard to components of hydrogen overpotential at palladium cathodes, there now seems fairly general acceptance that the η_2 components of overpotential at highly active cathode surfaces, represents an overall surface hydrogen chemical potential governed by the diffusive transport of dissolved hydrogen molecules through the interfacial layer of solution. There is, however, much less general agreement concerning the origin of the η_1 component (12). In Paper 5A2 by F. A. Lewis (Belfast) attention was drawn to experiments which suggested that the η_1 component might partly be attributed to high localised values of surface hydrogen chemical potentials. Local cell hydrogen transfer effects, arising from a heterogeneity of surface hydrogen chemical potentials, were suggested to be an important factor in determining the values of electrolytic isotopic separation factors; and attention also was drawn in 5A2 to the means of estimating

surface hydrogen chemical potentials by using electrical resistance measurements to determine hydrogen chemical potentials in the bulk of the electrode.

Problems arising from heterogeneity of surface activity also were discussed in a study of rates of hydrogen penetration through a palladium bielectrode, reported in Paper 1C12 by I. Hristova (Sofia).

References

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Hydrogen Generators for Meteorology

A new range of hydrogen generators developed by Johnson Matthey Metals was introduced at the recent Meteorex '77 equipment exhibition held in Hamburg to coincide with two important international meteorological conferences organised by the World Meteorological Organisation. These generators, which have been designed specifically for civilian use, have lower rates of output than the military generators which were the subject of an earlier article in this Journal, although the method of hydrogen production and its purification using a palladium-silver diffusion unit are the same. Capable of working in environments not suitable for some other types of generator, these units can produce hydrogen at a cost which in many situations is considerably cheaper than other sources.

