

## Hydrogen measurement in steel: a query

Richard M. Lindstrom

Received: 16 September 2010/Published online: 23 December 2010  
© Akadémiai Kiadó, Budapest, Hungary 2010

I found the recent article by Cho and Park (Analysis of hydrogen concentration in low-alloy steel, *Journal of Radioanalytical and Nuclear Chemistry* **284** (2010), 533–537) most tantalizing. The authors do not give enough details for me to understand how they are able to accurately measure 0.1  $\mu\text{g}$  of hydrogen (1 ppm in a 100 mg sample) in the presence of a 13  $\mu\text{g}$  background, especially since the sample is “irradiated while attached to a paper filter.”

They validated their measurements by comparison with ICP-AES, a claim that my colleagues in that field are unable to understand. Although hydrogen can be detected via the 656 nm line (*Spectrochim. Acta* **40B** (1985), 177–194], since that method in general practice requires the sample to be in water solution, a detailed reference to their procedure is needed. I look forward to reading their future publications.

---

R. M. Lindstrom (✉)  
Analytical Chemistry Division, National Institute of Standards  
and Technology, Gaithersburg, MD 20899-8395, USA  
e-mail: richard.lindstrom@nist.gov