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ONLINE ISSN : 1348-2246

PRINT ISSN : 0910-6340

Analytical Sciences

Vol. 26 (2010) , No. 2 p.233

[\[PDF \(850K\)\]](#) [\[References\]](#)**Contribution of Ni KLL Auger Electrons to the Probing Depth of the Conversion Electron Yield Measurements**[Shinjiro HAYAKAWA](#)¹⁾, [Aya TANAKA](#)¹⁾ and [Takeshi HIROKAWA](#)¹⁾*1) Department of Applied Chemistry, Graduate School of Engineering, Hiroshima University***(Received September 5, 2009)****(Accepted December 11, 2009)**

The averaged attenuation length of emitted electrons with the conversion electron yield (CEY) method was evaluated for Ni films with the x-rays below and above the Ni K absorption edge. The evaluated attenuation length was 13.1 nm with the x-rays below the Ni K absorption edge, and it became 24.0 nm with the contribution of Ni KLL Auger electrons that had the attenuation length of 78.1 nm. The probing depth of the CEY measurements are determined both the penetration depth of x-rays and the attenuation length of emitted electrons, and the modification of the probing depth was investigated with the grazing incidence condition. The glancing angle dependence of the CEY was compared with the model calculation, and the probing depth of around 1.6 nm was realized under the total reflection condition. The probing depth was controlled from 1.6 nm to the attenuation length by changing the glancing angle.

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To cite this article:

Shinjiro HAYAKAWA, Aya TANAKA and Takeshi HIROKAWA, *Anal. Sci.*, Vol. 26,

doi:10.2116/analsci.26.233

JOI JST.JSTAGE/analsci/26.233

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