

Validation of mass attenuation coefficients in quantitative electron probe microanalysis (EPMA)

KATO, Takenori^{1*} ; JEEN, Mi-jung² ; CHO, Deung-lyong³ ; SATO, Kei¹

¹Center for Chronological Research, Nagoya University, ²Center for Research Facilities, Pusan National University, ³Geological Mapping Department, Korea Institute of Geoscience and Mineral Resources

Mass attenuation coefficients (m.a.c.s) are important factors of accuracy in quantitative electron probe microanalysis (EPMA). New m.a.c.s are calculated from the latest version of two datasets[1][2] for $Z = 1 - 92$. The combination of two datasets solves the problems within them, such as spurious discontinuity and unnatural increase at high-energy sides of absorption edges. New m.a.c.s improve accuracy including geological applications.

[1] Henke B.L., Gullikson, E.M. and Davis, J.C. (1993) *At. Data Nucl. Data Tables*, 54, 181 - 342.

[2] Hubbel J.H. and Seltzer S.M. (1995) *NISTIR*, 5632, pp. 116.

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