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Lα Emission Spectra of Elements Z = 40–48*

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We have carried out a systematic study of the Lα X-ray emission spectra in the region Z = 40–48 for which high resolution experimental studies are rare in the literature.\textsuperscript{1,2)} We have used a double crystal fluorescence spectrometer equipped with two different sets of analyzer crystals, calcite (111, 2d = 0.606 nm) and quartz (1010, 2d = 0.849 nm). The Lα\textsubscript{1} half-widths, Lα satellite intensities relative to the Lα\textsubscript{1} intensity and Lα fine structure have been determined. The fine structure is discussed in terms of LM double hole states.\textsuperscript{3)}

References

*Abstract only.

![Image of X-ray emission spectrum](image)

Fig. 1. Lα X-ray emission spectrum of Rh measured by the double crystal spectrometer in the first order reflection of quartz crystals (2d = 0.849 nm).