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## Study of the optical systems of atomic-absorption spectrophotometers

Gil'mutdinov A., Nagulin K., Nagulin Y., Bazhanov Y.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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### Abstract

This paper analyzes the factors that ensure that optical atomic-absorption spectrophotometers can give reliable information on the composition of a sample introduced into the atomization zone. It discusses how the parameters of the radiation source, the optical elements, the radiation detector, and the general layout of the optical system mutually affect the measurement results. Ways to improve the optical systems of atomic-absorption spectrometers are pointed out. Prospects of using position-sensitive linear radiation detectors in the devices are discussed. © 1996 The Optical Society of America.

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