

## The chemical analysis of the silicone polymers and materials on their basis, applied in micro- and nanoelectronics

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### Abstract

The method of the atomic emission spectral analysis is developed at 100-fold enrichment, allowing to supervise 15 elements of impurity of metals in high-purity silicone materials. The method is based on concentration of the impurity on a coal collector after burning of the sample and removal of a basic element of silicon in a kind tetrafluoride or extraction by deionization water of soluble impurity from the insoluble rest. The concentrate of impurity on a collector is raised in plasma of an arch of an alternating current. The developed technique allows to spend definition of impurity K, Na, Li, Ba, Sr, Ca, Mg, Al, Fe, Ti, Mn, Cr, Cu, Zn, Pb in silicone rubbers, pitches and the unfilled and filled compositions at their maintenance of  $10^{-2}$ - $10^{-6}$ %.