

local fraction atomized, χ_a , β_a

in flame emission and absorption spectrometry

The substance fraction of the atomized component in the total volatilized component. This quantity is measured in a defined part of the flame, usually the observation space. The fraction atomized is the result of chemical reactions in the gaseous state. It depends on the bond strength of the compounds that the component may form within the flame and on the composition and temperature of the flame. When analysing elements that tend to become oxidized in the flame, it may be advisable to use as fuel gas mixtures with a reducing component such as C₂H₂ or N₂O .

Source:

PAC, 1986, 58, 1737 (*Quantities and units in clinical chemistry: Nebulizer and flame properties in flame emission and absorption spectrometry (Recommendations 1986)*)
on page 1741

Orange Book, p. 168