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DETERMINATION OF CONCENTRATIONS OF THE COMPONENTS IN MODELS OF GAS MIXTURES OF EXHALED AIR WITH THE HELP OF THE CANONICAL CORRELATION ANALYSIS AND PRINCIPAL COMPONENT ANALYSIS

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In this paper we consider the problem of finding the concentrations of molecular gas in the model spectra, which are intended to describe the samples of exhaled air. Model spectra are linear combinations of the absorption spectra of the individual molecular gases with given coefficients. The absorption spectra were calculated on the basis of the database HITRAN. Concentrations are using principal component analysis and canonical correlation analysis.

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