

Kohonen Self-Organizing Maps as a New Method for Determination of Salt Composition of Multi-Component Solutions

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Abstract : The paper presents the results of clusterization by Kohonen self-organizing maps (SOM) applied for analysis of array of Raman spectra of multi-component solutions of inorganic salts, for determination of types of salts present in the solution. It is demonstrated that use of SOM is a promising method for solution of clusterization and classification problems in spectroscopy of multi-component objects, as attributing a pattern to some cluster may be used for recognition of component composition of the object.

Keywords : Kohonen self-organizing maps, clusterization, multi-component solutions, Raman spectroscopy

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