



**Babeş-Bolyai University
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**Physical-chemical Aspects Of the Transformation In
Time Of the Post-volcanic Mineral Resources, Used
For Curative Intent, Carpathian Arch Area**

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Research Purposes

- The pursuit of changes taking place in time in physical-chemical factors contributing to the transformation of carbonated natural mineral waters from the Carpathian Arch.
- Research on carbonated natural mineral water clarifying.

Preliminary Research

We examined the water samples for researching the variation of the following parameters:

- *electrical conductivity*
 - *TDS*
 - *pH*
- *Fe²⁺ content*
- *CO₂ content*
- *HCO₃⁻ content*

The First Stage of Research

Through periodic analysis, we performed the following measurements at carbonated natural mineral water samples:

Analysis - filtrate:

- *variation of total Fe, Fe²⁺, Ca²⁺, Mg²⁺, Mn*
- *electrical conductivity, pH, CO₂, HCO₃,*
- *total carbon content,*
- *dry residue,*
- *turbidity.*

Analysis - suspension:

- *variation in the content of Fe% Ca% Mn% TOC%.*

The Second Stage of Research

Peptidising water samples by treating them

- in various mass report –
with different stabilizing substances

Determinations Related to Peptidising Samples of Water

Through periodic analysis, we examined the variation in time of the following parameters:

- *the particle size of the colloidal*
 - *Zeta potential*
 - *pH*
 - *pE*
 - *electrical conductivity*

Current state

- data processing
- linking bibliographic knowledge with data obtained
 - preparing publications

Future Predictions

- modeling transformations taking place in carbonated natural mineral waters based on data obtained
 - preparing doctoral thesis based on research

Thank you for your attention!