

1. A system for producing personalized mineralized drinking water, comprising: a sample collection module configured to obtain body fluid samples from an individual; an analysis module operable to determine levels of targeted minerals, vitamins, and bioactive compounds in the sample; a computing module configured to calculate an optimal formulation tailored to the individual's health profile based on the analysis; a mineralization module configured to blend the calculated formulation with distilled water; and a delivery module configured to distribute the personalized mineralized water to the individual.

2. The system of claim 1, wherein the analysis module further comprises mass-spectrometry instrumentation to quantify at least calcium, magnesium, sodium, potassium, and chloride ions within the body-fluid sample.

3. The system of claim 1, wherein the computing module is further configured to adjust the formulation in response to periodic follow-up analyses and historical health data for the individual.

4. The system of claim 1, wherein the mineralization module includes precision micro-dosing pumps that meter each mineral solution to  $\pm 1$  mg accuracy.

5. A method of producing personalized mineralized drinking water, comprising: collecting a body-fluid sample from an individual; analyzing the sample to determine at least one mineral deficiency or excess; computing an optimal mineral formulation tailored to the individual; distilling feed water to remove contaminants; adding the computed formulation to the distilled water; and delivering the resulting personalized mineralized water to the individual.