

Analysis Report

Thermal Infrared Imaging of NEO activated water in glass and metal bottles.

Date: 20230929

Thermal Infrared Imaging (TIRI) and Detrended Fluctuation Analysis, (DFA. i.e. monofractality) (RAZ IR thermal camera system, Sierra Pasific Innovations Corporation, US) (Johansson and Sukhotskya, Water J, 2012).

Tap water (Sövde, Sweden) was NEO activated in glass and stainless-steel bottles, September 27, 2023. TIRI and DFA analyses were performed during week 39, 2023.

TIRI and DFA analysis

Two NEO activated water samples (5 ml) from each one of control and activated glass and metal bottles were analyzed by TIRI. The reduction in thermal IR emission and mean TIRI temperature difference towards the control was calculated as an estimate of an increase in structural ordering of surface water. Detrended fluctuation analysis determines the fractal scaling behavior of a numeric, e.g. time or temperature series data. The DFA values ranging from 0.5-1.0, growing stronger towards 1.0, indicate long-range power-law correlations between water molecules.

Table 1. TIRI and DFA analysis of NEO water in glass and metal bottles

Sample No.	Control water (°C)	NEO water (°C)	Temperature Difference (°C)	Control DFA	NEO DFA
Glass 1-12	20.70 ± 0.24	20.66 ± 0.28*	-0.04	0.764 ± 0.031	0.864 ± 0.036***
Metal 13-24	21.43 ± 0.79	21.34 ± 0.77**	-0.11	0.777 ± 0.027	0.881 ± 0.038***
* P<0.05; ** P<0.01; *** P<0.001					



The results of TIRI and DFA (Table 1) reveal a clear power law relationship in thermal IR emission in NEO water with long-term consistency and aligned as a structural coherence among water molecules.

References

1. Johansson B, Sukhotskya S. Allometric scaling behaviour – a quantum dissipative state implies a reduction in thermal infrared emission and fractal ordering in distilled water. *Water J.* 3, 100-121, 2012.

Laboratory Manager

A handwritten signature in black ink that reads 'Benny Johansson'.

Benny Johansson