

NANOSIGHT 3RD PARTY VALIDATION REPORT



ABOUT KAIROSPACE

Kairospace focuses on addressing current water-related issues. Using innovative technologies and advanced science, Kairospace uniquely develops clean-tech water solutions that address specific water challenges while generating positive environmental and economic impact across many industries.

Our introductory line of regenerative water treatment products, the "AG-PACKs", provides the ultimate water enhancement platform for Ag growers. By combining physics, gases, and nanobubbles in complementary ways, AG-PACKs optimize water quality to increase agricultural outputs, improve crop quality and cut costs.



AG PACK

Clean-Tech water treatment platform aimed at sustainable food production



ULTRAFINE BUBBLES

•High-efficiency liquid-gas mixing. Can operate with O2*, O3*, CO2, H2 and N2 *O2 and O3 are generated on board



WATER CONDITIONING

Improvement of carrying capacity of saltsReduces surface tension



ADVANCED OXIDATION PROCESS •Recovery of waste water

KAIROSPACE TECHNOLOGIES INTRODUCES THE AGPACK 40 P1





WHY ULTRA FINE BUBBLES?

Maximum Mass Transfer Efficiencies Increased Oxygen Transfer Neutral Buoyancy Extended Lifespan Improved Dissolution Rates

UFB are 500 times smaller than micro bubbles, having over 400 times more surface area, ensuring effective delivery of gases.

BUBBLE CLASSIFICATION



WHAT IS NANOPARTICLE TRACKING ANALYSIS?

<u>Nanoparticle Tracking Analysis (NTA)</u> utilizes the properties of both light scattering and Brownian motion in order to obtain the nanoparticle size distribution of samples in liquid suspension.

Particles in liquid suspension are loaded into a sample chamber, which is illuminated by a specially shaped laser beam. Particles in the path of the beam scatter the laser light which is easily collected by the 20x microscope objective and is viewed with a digital camera. The camera captures a video of the particles moving under Brownian motion.



KAIROSPACE_AGPO2-T3 2023-03-21 13-38-26

Click for video clip

NANOSIGHT

AGPO2-T3 2023-03-21 13-36-19



<u>Results</u>

Stats: Merged Data Mean: 122.9 nm Mode: 79.4 nm SD: 55.7 nm D10: 74.0 nm D50: 106.4 nm D90: 201.3 nm

Stats:

Mean +/- Standard Error Mean: 122.6 +/- 2.7 nm Mode: 80.9 +/- 3.2 nm SD: 55.6 +/- 2.2 nm D10: 74.6 +/- 2.6 nm D50: 104.8 +/- 5.6 nm D90: 201.0 +/- 4.9 nm

Concentration: 6.00e+08 +/- 6.58e+07 particles/ml 32.8 +/- 3.6 particles/frame 43.5 +/- 4.2 centres/frame



RESULTS AT A GLANCE

600,000,000 nano bubbles per ml

79-122 nanometers in size

79 nm (most common bubble size)

122 nm (mean average bubble size)

Click for full report



KAIROSPACE TECHNOLOGIES



KAIROSPACE MINING CANADA

info@kairospacetechnologies.com