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KPM Analytics Expands NexaFlo Continuous Flow Platform for Seawater Nutrient Analysis

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KPM Analytics is introducing enhanced seawater nutrient analysis capabilities on its next-generation NexaFlo Continuous Flow Analyser, providing marine laboratories with improved sensitivity and expanded analytical flexibility ahead of Analytica 2026 in Munich, Germany.

Monitoring nutrients in seawater is essential for understanding ocean productivity, tracking ecosystem health, and supporting environmental and regulatory programs. Analytical challenges are significant: while seawater contains high concentrations of major ions, critical nutrients such as nitrate, nitrite, phosphate, silicate, and ammonium can occur at extremely low concentrations, particularly in open-ocean and deep-water environments. Reliable detection of these trace nutrients requires stable baselines, precise reagent handling, and instrumentation capable of delivering low limits of detection with consistent signal quality.

The NexaFlo platform, KPM Analytics' next-generation continuous flow analyser, addresses these requirements with upgraded electronics and improved signal processing that reduce background noise and improve measurement stability. For marine nutrient applications, NexaFlo delivers 2â??3Ã? better analytical performance compared with the previous-generation Futura platform, enabling laboratories to quantify very low nutrient concentrations with greater confidence.

A major advantage of NexaFlo is its compatibility with the extensive library of analytical manifolds developed for the Futura platform. Laboratories can continue using established chemistries and validated methods while benefiting from the improved performance of the new instrument architecture. The system supports proven Grasshoff chemistries for nitrate, nitrite, phosphate, and silicate analysis, as well as fluorometric methods for very low ammonium detection.

To simplify implementation for marine laboratories, KPM Analytics is also introducing a dedicated bundle of height seawater analysis manifolds covering the most common nutrient measurements (Nitrates, Nitrites, Silicates, Phosphates, Ammonia with fluorescence, Ammonia with phenol, Total Phosphorus, Total Nitrogen). The bundled configuration provides a ready-to-deploy

solution for oceanographic research institutions, government monitoring programs, and commercial laboratories performing routine seawater testing.