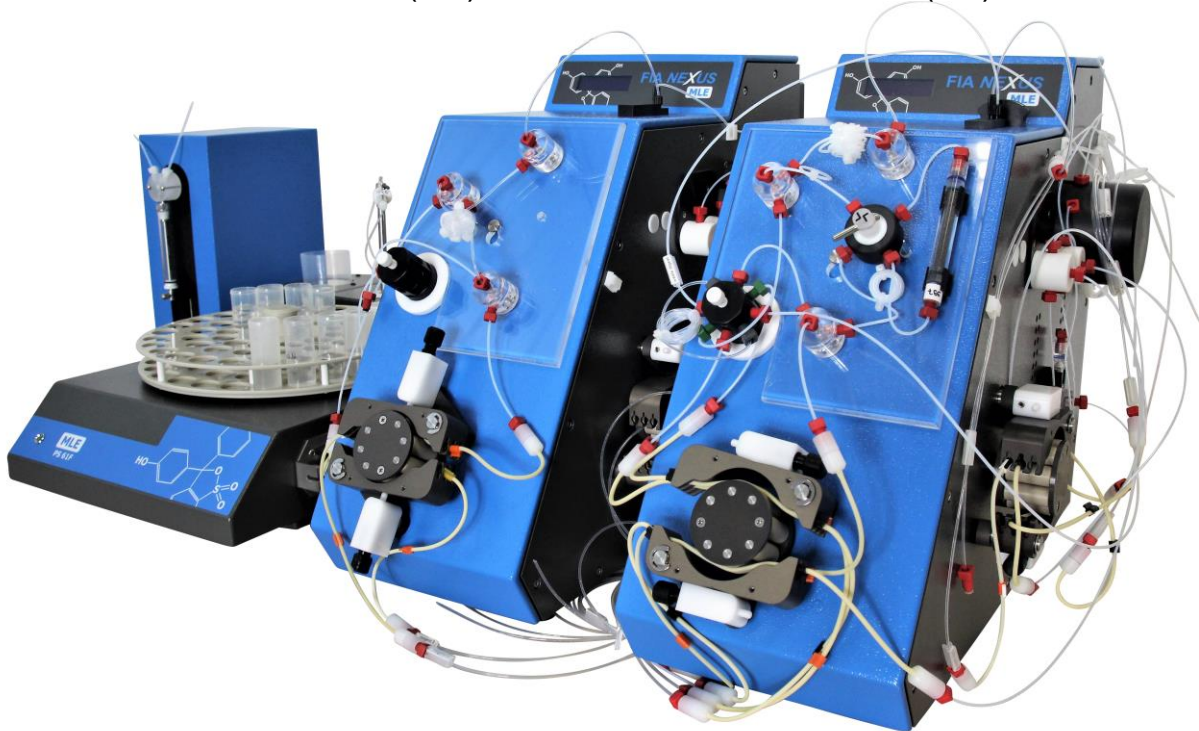


Total Nitrogen / Total Phosphorus – Analyzer

Reference: ISO 29441 (TN) und DIN EN ISO 15681-1 (TP)



FIA Nexus with integrated digestion unit (UV und Thermo) for determination of:

Total - Nitrogen 0,05 ... 20 mg/l TN

The nitrogen in the sample bound as ammonium, nitrite, and organic nitrogen is oxidized to nitrate by oxidative and hydrolytic digestion in a UV-reactor and a thermoreactor. The nitrate formed is (together with any nitrate already present in the sample) reduced to nitrite by cadmium in an imidazole buffer at pH = 7.5. Sulfanilamide is diazotised by the nitrite. The diazonium salt formed in the process is coupled to N-(1-naphthyl)-ethylendiamine resulting in an azo dye.

Total - Phosphorus 0,1 ... 20 mg/l TP

The bound phosphorus in the sample is transformed into orthophosphate by oxidative and hydrolytic digestion in a thermoreactor and a UV-reactor. The orthophosphate formed is (together with the orthophosphate already existing in the sample) converted to the heteropoly acid by molybdate. The heteropoly acid is reduced to phosphomolybdenum blue using ascorbic acid.