DETERMINATION OF CHROMIUM(VI) AND COMMON INORGANIC ANIONS IN INDUSTRIAL WASTEWATER BY MEANS OF SUPPRESSED ION CHROMATOGRAPHY

RAJMUND MICHALSKI, EWA SUROWIEC
Institute of Environmental Engineering of Polish Academy of Science
ul. Skłodowskiej-Curie 34, 41-819 Zabrze, Poland

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Summary

Isocratic ion chromatography with suppressed conductivity detection was used for the simultaneous separation and determination of chloride, nitrate, sulfate and chromate in industrial wastewater. The separation was performed on an anion-exchange column with $Na_2CO_3/NaHCO_3$ eluent and $20 \cdot 10^{-6}$ dm^3 injection loop. Linearity of chromate was checked up to 30 mg/dm^3. The detection limits of Cl^-, NO_3^-, SO_4^{2-} and CrO_4^{2-} were on the levels: 1.18 mg/dm^3, 0.31 mg/dm^3, 1.74 mg/dm^3, and 0.63 mg/dm^3, respectively. The mean recoveries of target anions for spiked samples were 87–109% and accuracy did not exceed 4.67%.