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[\[PDF \(584K\)\]](#) [\[References\]](#)**Separation of Inorganic Anions on a Pyridine Stationary Phase in Ion Chromatography**[Toyohide TAKEUCHI^{1\)}](#), [Tatsuya KAWASAKI^{1\)}](#) and [Lee Wah LIM^{1\)}](#)*1) Department of Chemistry, Faculty of Engineering, Gifu University***(Received January 25, 2010)****(Accepted March 5, 2010)**

The retention behavior of inorganic anions on a pyridine stationary phase commercially available for hydrophilic interaction chromatography was examined in ion chromatography. Inorganic anions were retained on a protonated pyridine stationary phase under acidic eluent conditions (pH 3.1 – 3.3) in the ion-exchange mode. The logarithm of the retention factor of analytes was linear to the logarithm of the eluent concentration, and the slopes of the plots were –0.55 to –0.64, except for nitrite (–0.39). The smaller slope for nitrite was due to the fact that nitrous acid is weak (pK_a 3.25 at 25°C) and was partially ionized under the operating conditions. The elution order of the examined anions was the same as that observed in common ion chromatography. The present system was applied to the determination of UV-absorbing anions contained in saliva.

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