

## Cation Analysis in the Presence of PEG (YS-50)

Waste water from electronic production factories may contain hydrophilic polymers. As a waste water model, sample containing mono- and di-valent cations in the presence of polyethylene glycol (PEG2000) was prepared. Ion chromatography (cation) column, ICYS-50 was used under non-suppressor method. All cations analyzed showed good recovery without having any effect from polyethylene glycol. Some PEG2000 is adsorbed on the column, however this can be removed by adding 50% ACN in the eluent.

### Chromatographic Conditions:

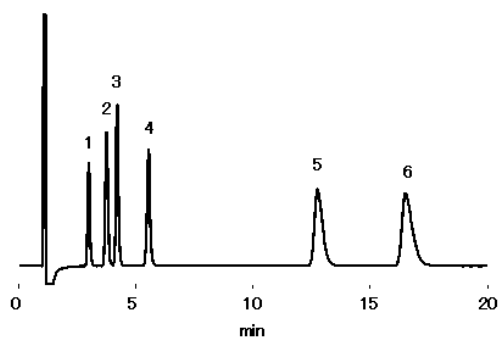
**Column:** Shodex IC YS-50 (4.6mmI.D. x 125mm)

**Eluent:** 4mM Methanesulfonic acid aq.

**Flow rate:** 1.0mL/min

**Detector:** Non-suppressed conductivity

**Column temp.:** 40°C



### Sample: 10µL Cation mixture in 5% PEG2000 solution

No.	cation	Recovery (%)
1.	Li <sup>+</sup> 2mg/L	106
2.	Na <sup>+</sup> 10mg/L	104
3.	NH <sub>4</sub> <sup>+</sup> 10mg/L	101
4.	K <sup>+</sup> 20mg/L	101
5.	Mg <sup>2+</sup> 10mg/L	99
6.	Ca <sup>2+</sup> 10mg/L	97