





Fig. 1 HPLC Separation of Sodium and Four Inorganic Anions on Amaze TH Column



Fig. 2 HPLC Analysis of Glucose and Lysine on Amaze TH Mixed-Mode Column

- 1. Phosphate ion
- 2. Chloride ion
- 3. Sodium on
- 4. lodide ion
- 5. Sulfate ion

| Column: | Amaze TH |
|---------------|------------------------|
| Dimensions: | 4.6x150 mm, 3 um, 100A |
| Mobile phase: | ACN/Water/AmFm pH 3 |
| Flow rate: | 1 ml/min |
| Detection: | ELSD, 45°C |

1. Glucose

2. Lysine

| Column: | Amaze TH |
|---------------|-----------------------|
| Dimensions: | 4.6x50 mm, 3 um, 100A |
| Mobile phase: | ACN/Water/AmAc pH 5 |
| Flow: | |
| | 1 ml/min |
| Detection: | ELSD 45°C |

Application Notes

Mixed-mode chromatography in combination with ELSD or CAD detectors offers a valuable alternative to ion chromatography and mass spectrometry. Although the sensitivity of ELSD and CAD detectors is lower than conductivity and MS detectors, a lot of applications can be developed using the less expensive alternative - mixed-mode columns and ELSD. Most of the non-volatile molecules can be monitored and quantified at concentrations above 20 ppm with ELSD, and concentrations below 5 ppm with CAD. HILIC mixed-mode columns, like Amaze TH, allow the analysis of polar ionizable and polar non-ionizable molecules in single or multiple modes in one run. The presence of ionizable groups on the surface of the Amaze TH column helps to reduce ionizable molecules at lower concentrations of ACN, which helps with the solubility of these molecules in high organic mobile phases. See more at <u>www.helixchrom.com</u>.