# Thermo Scientific Dionex IonPac AS11-HC-4µm Column

## Product Spotlight

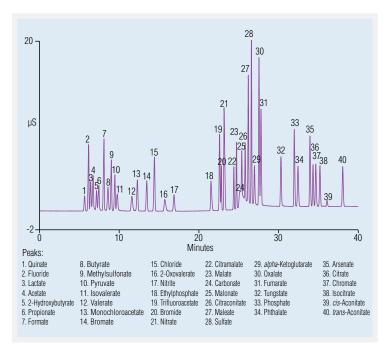
Smaller resin particles in the **Thermo Scientific<sup>™</sup> Dionex<sup>™</sup> IonPac<sup>™</sup> AS11-HC-4µm Anion-Exchange Column** increase chromatographic efficiency. When used with high-pressure IC systems, resolution is improved without sacrificing speed. Closely eluting analytes in difficult matrices can now be resolved, making this column ideal for anyone working with difficult matricies and seeking higher speed and better resolution for their sample analysis.

### Dionex IonPac AS11-HC-4µm Column Highlights

Attain the optimal combination of chromatographic speed and resolution using the Dionex IonPac AS11-HC-4µm anionexchange column. This high-capacity, high-efficiency column provides excellent resolution of a large number of organic acids and inorganic anions in complex sample matrices. Compared to the previous Dionex IonPac AS11-HC column, the new anionexchange column uses smaller resin particles for more efficient separations resulting in more accurate peak integration and more reliable results.

#### Dionex lonPac AS11-HC-4 $\mu$ m Anion-Exchange Column (0.4 x 250 mm), (2 × 250 mm), (4 × 250 mm) and AG11-HC-4 $\mu$ m Guard Column (0.4 x 50 mm), (2 × 50 mm), (4 × 50 mm)

- Increase chromatographic resolution and quality of analytical results
- Gradient separation of organic acids and inorganic anions in complex
  sample matrices
- Excellent for Food and Beverage, Process Monitoring customers needing more accurate results
- High-pressure Thermo Scientific Dionex ICS-5000<sup>+</sup> or Dionex ICS-4000 Capillary HPIC<sup>™</sup> system required to run at standard conditions



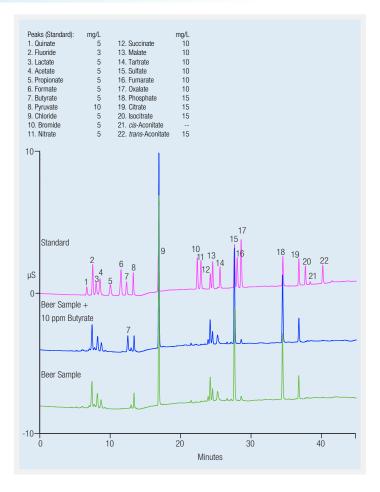
# Gradient separation of organic acids and inorganic anions using the Dionex IonPac AS11-HC-4µm Column.

Excellent resolving power of the Dionex IonPac AS11-HC-4µm anion-exchange column. A wide variety of organic acids and inorganic anions can be separated in 40 minutes using a hydroxide gradient. This increase in resolving powerr improves the quality of IC analysis providing better separation of closely eluting peaks making integration easier and more consistent.



**The Dionex IonPac AS11-HC-4µm column** is ideal for analyzing a wide variety of organic acids and inorganic anions in complex matrices such as food and beverage samples. Food and beverage samples are analyzed for product quality and adulteration. For example, beer samples are analyzed for the presence of butyrate which indicates the presence of contaminant bacteria during the beer production process.

#### Analysis of beer samples using the 2 mm Dionex IonPac AS11-HC-4µm column.



#### **Did You Know?**

Many laboratories have pushed the existing 5.5–9 µm particle size columns to their limits of resolution and speed. Often increased flow rates cannot be used to speed up analyses because resolution and thus quality of results, suffer. For applications requiring high resolution, it is not practical to improve resolution by using longer gradient runs due to the impact on sample throughput. Because the new columns are more efficient, laboratories can optimize their separations to achieve higher resolution, or higher flow rates, or both simultaneously.

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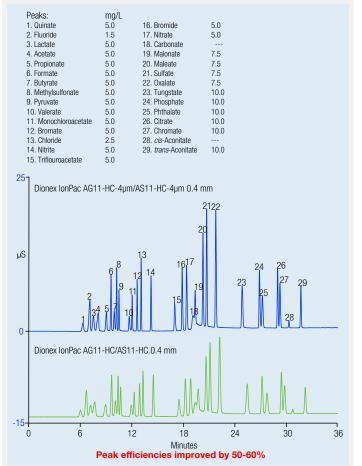
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A small amount of methanol is added to the water reservoir to facilitate the separation of succinate and malate.

Smaller particle size columns minimize peak dispersion and improve chromatographic fidelity and resolution. Notice the sharper and taller peaks in the chromatogram using the 4 µm particle column. The improved resolution provides easier peak integration and more accurate results.

#### Comparison of different particle sizes used in the Dionex IonPac AS11-HC and Dionex IonPac AS11-HC-4µm columns.



#### For more information,

visit www.thermoscientific.com/4um or email us at analyze@thermoscientific.com



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