

# APPLICATION NOTE

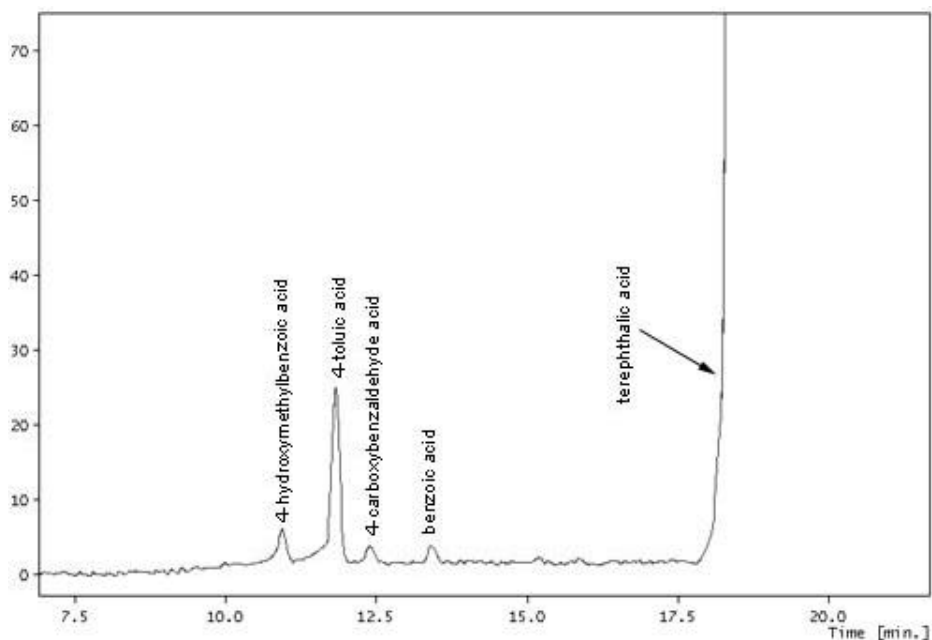
**Application Note :** 012

**Title of application :**

Detection of Impurities from Purified Terephthalic Acid

**Area of application :**

Quality assurance/ Petrochemical analysis



**Conditions :**

Buffer	TPA-01 (100 mM), pH= 10.5;
Sample	Purified terephthalic acid (solid sample);
Capillary	50 $\mu\text{m}$ i.d, 70 cm length;
Injection mode	Hydrodynamic injection;
Separation setting	+ 20 kV
Instrument used	CE-L1, UV detection at 200 nm

**Description :**

The determination of ppm levels of impurities from a technical product can be very challenging for any analytical methods, because it requires good performance with respect to both detection sensitivity and sample capacity.

Here, by formulating the right kind of CZE buffer, the major component, terephthalic acid was made migrating the last, while all the target impurities were eluted ahead of the major component with good peak symmetry. As a result, all the impurities could be separated and measured with satisfactory accuracy. CE-L1 can be applied similarly in a lot other cases, for purposes of quality assurance as well as product characterization.