

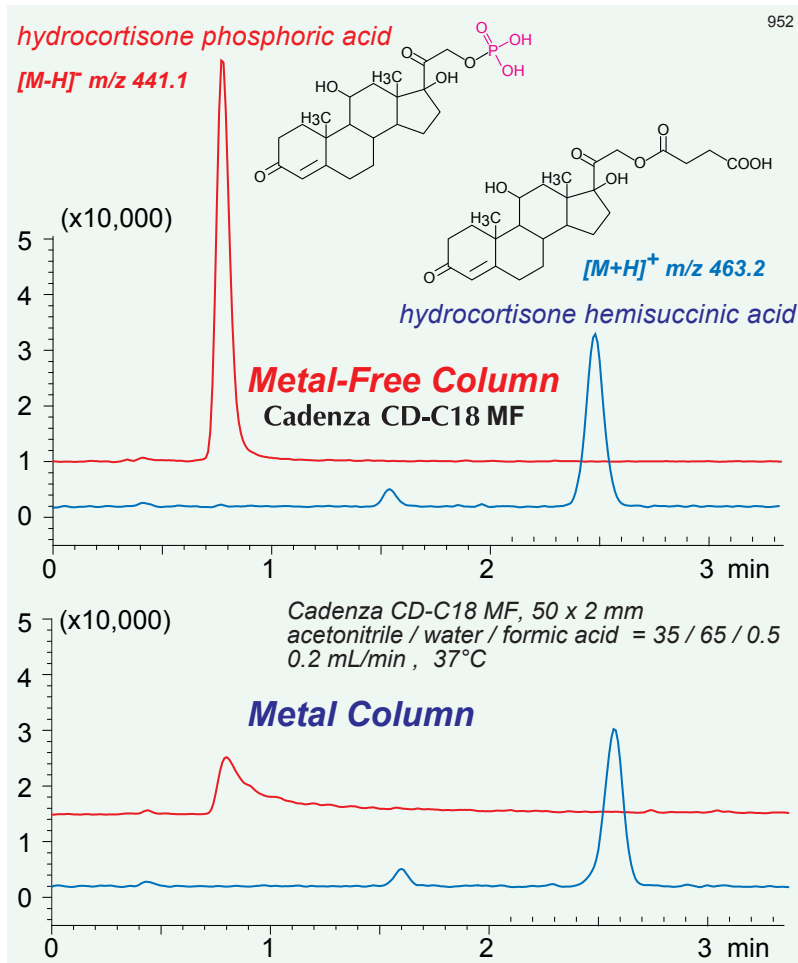


# HPLC COLUMN IMTAKT

Improving peak shape for chelating or phosphoric compounds

## METAL-FREE COLUMN

2 mm I.D.  
30-250 mm Length  
PEEK / SS316  
UHPLC compatible



**Metal-free (PEEK) internal structure**  
**UHPLC compatible metal housing**  
**Ideal for chelating compounds**  
**Ideal for phosphoric compounds**  
**LC-MS compatible 2mm I.D.**  
**Wide selection of stationary phases**

This metal-free column is an Imtakt original design.

The entire internal surface of these columns are made with PEEK material, including the frits, and is therefore extremely inert with respect to chelating compounds.

The outer portion of these columns are made from stainless steel (SS316) making them suitable for extremely high pressures, and are UHPLC compatible.

Phosphoric compounds can interact with the exposed metal surfaces within the column causing peak tailing, as seen in the figure to the left.

Our metal-free columns are designed to specifically improve these poor peak shapes by decreasing unwanted secondary chelating effects.

## Improving peak shape of chelating or phosphoric compounds

Chelating and phosphoric compounds often have difficulty with poor peak shape and/or sensitivity due to undesired interaction between metal parts in the column and the structure of these compounds. Our UHPLC compatible metal-free columns, which are an Imtakt original design, will improve these problems and are available in a wide range of stationary phases.

### Nucleoside triphosphate (NTP)

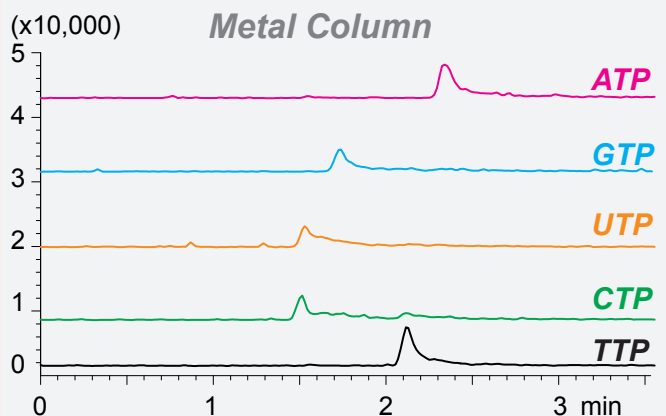
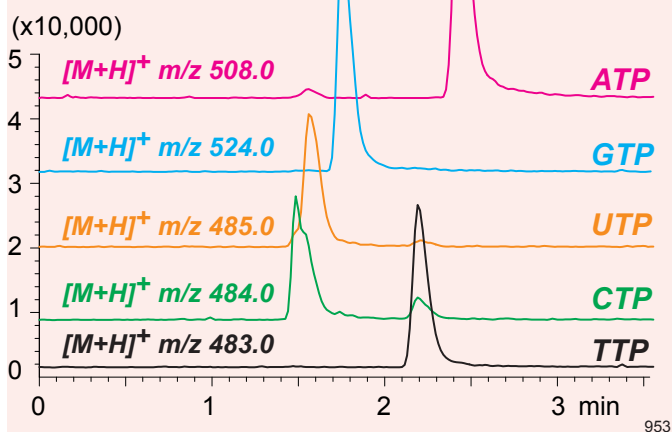
Unison UK-C18 MF, 150 x 2 mm  
5mM ammonium formate  
0.2 mL/min (8MPa), 37°C

#### Metal-Free Column

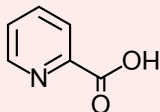
Unison UK-C18 MF

Trinucleotides have tri-phosphate structures and are notoriously difficult compounds to analyze.

Switching to our metal-free columns from conventional metal columns will improve peak sensitivity on LC-MS.



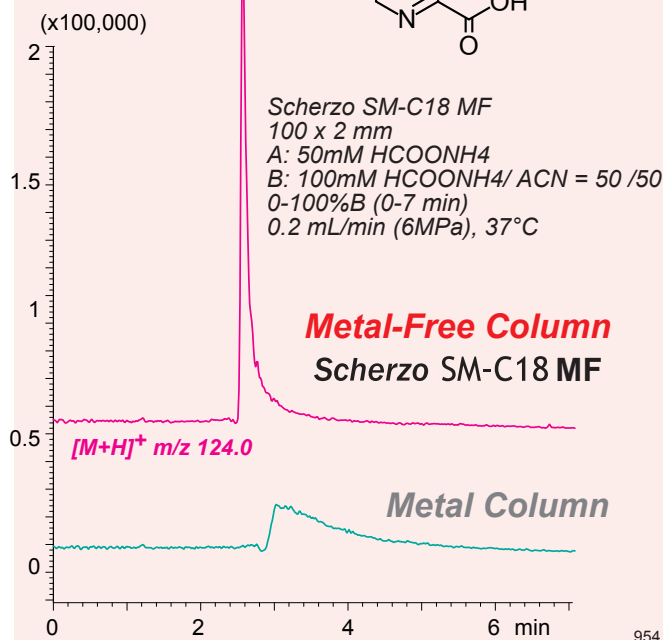
### Picolinic acid



Scherzo SM-C18 MF  
100 x 2 mm  
A: 50mM HCOONH<sub>4</sub>  
B: 100mM HCOONH<sub>4</sub>/ ACN = 50 / 50  
0-100%B (0-7 min)  
0.2 mL/min (6MPa), 37°C

#### Metal-Free Column

Scherzo SM-C18 MF



It is known that picolinic acid has chelating interactions with metal. Instead of a metal column which shows extreme tailing and poor peak shape, our metal-free column will generate a much better peak shape.

## IMTAKT METAL-FREE COLUMNS

I.D.: 2 mm, LENGTH: 30, 50, 75, 100, 150, 250mm

PRODUCT NAME	PARTICLE	MAX. PRESSURE
Cadenza CD-C18 MF	3μm	50MPa
Cadenza CL-C18 MF	3μm	50MPa
Cadenza HS-C18MF	3μm	25MPa
Cadenza CW-C18MF	3μm	25MPa
Unison UK-C18 MF	3μm	50MPa
Unison UK-C8 MF	3μm	50MPa
Unison UK-PhenylMF	3μm	50MPa
Unison UK-Silica MF	3μm	50MPa
Unison UK-Amino MF	3μm	50MPa
Scherzo SS-C18 MF	3μm	25MPa
Scherzo SM-C18MF	3μm	25MPa
Scherzo SW-C18MF	3μm	25MPa
DACAPO DX-C18 MF	2.5μm	50MPa
Presto FF-C18 MF	2μm	50MPa
Intrada WP-RP MF	3μm	25MPa