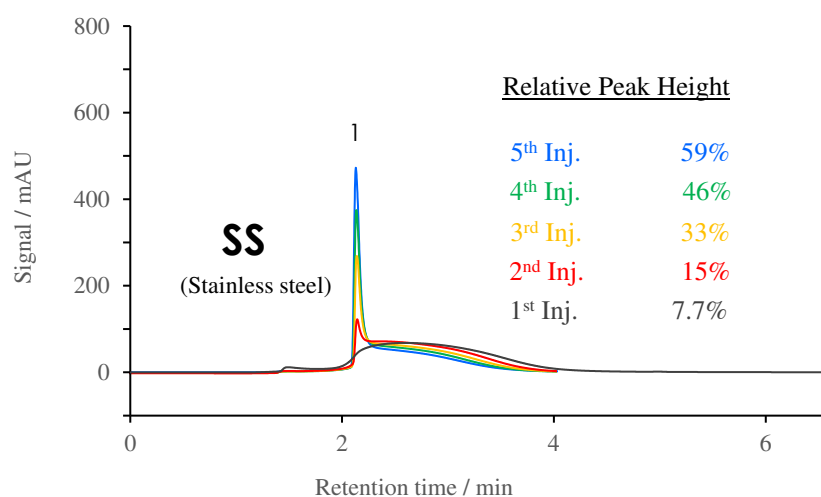


## ヒノキチオールとイナータ処理の効果

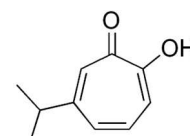
Prominert C18 3.5 μm,

### Hinokitiol on PS Inert vs. SS Column

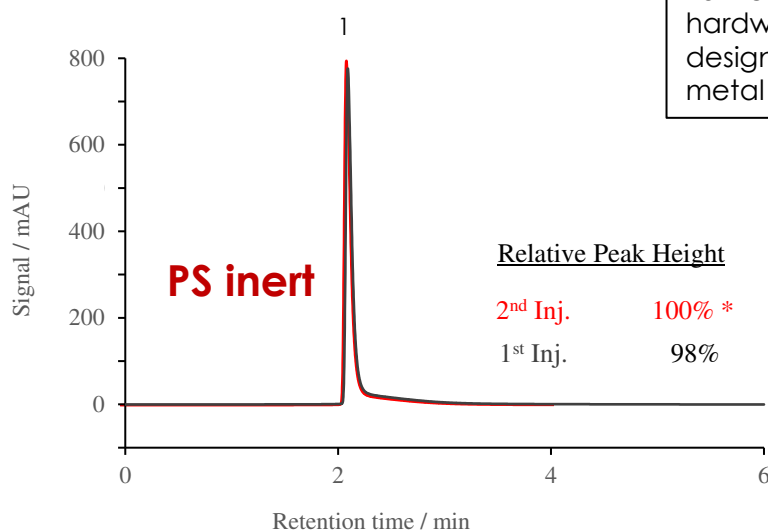
150 x 4.6 mm i.d., SS / PS inert



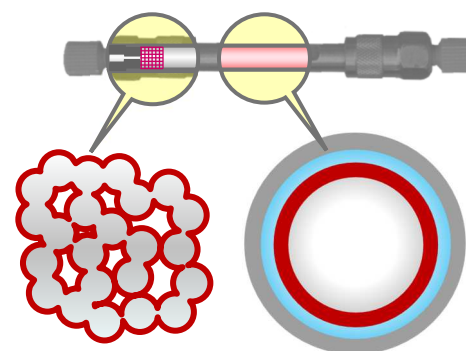
1. Hinokitiol



\*Relative Peak Height (Normalized to 100% at "2<sup>nd</sup> Injection on PS Inert" )



**PS inert** is a hydrophobic, metal-free column hardware with an organic surface coating, designed as an inert alternative to conventional metal columns.



Organic surface coating on SS

Column: Prominert C18 3.5 μm, 100 x 4.6 mm i.d. (**SS**)  
 Prominert C18 3.5 μm, 100 x 4.6 mm i.d., **PS inert**  
 and variants: PS frit + SS tubing, SS frit + PS tubing  
 Mobile phase: Methanol / 0.1% Formic acid = 70 : 30  
 Temperature: 40 °C,  
 Detection: UV@250 nm  
 Flow rate: 1 mL/min  
 Sample: 1 = Hinokitiol  
 Injection volume: 1 μL  
 Instrument: Conventional HPLC (SS tubing)

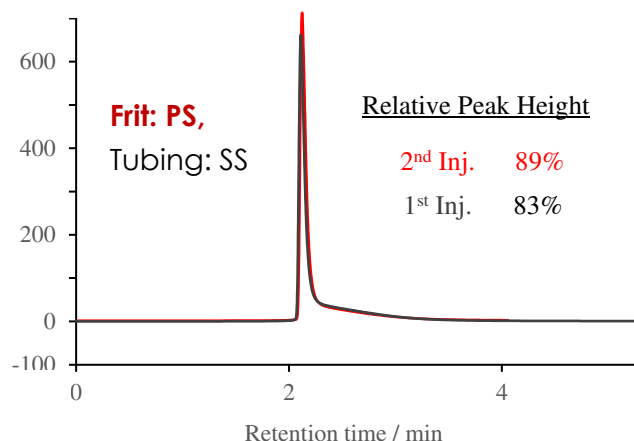
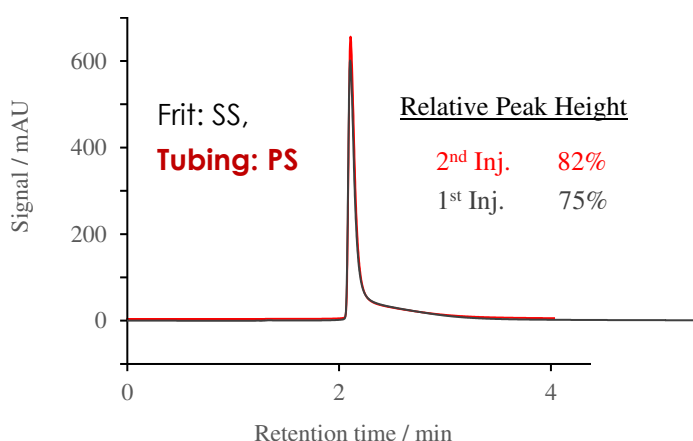
*Hinokitiol is a chelating compound, so phosphate buffer is typically used in HPLC to suppress chelation. In this case, a formic acid mobile phase was used assuming LC/MS analysis, and the analysis was performed using a conventional LC system with SS tubing, not an inert configuration. This application focuses on comparing the effects of different column hardware.*

## ヒノキチオールとイナート処理の効果

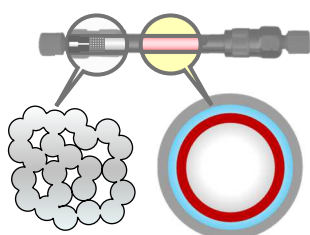
Prominert C18 3.5 μm,

### Hinokitiol on PS Inert vs. SS Column

150 x 4.6 mm i.d., SS / PS inert



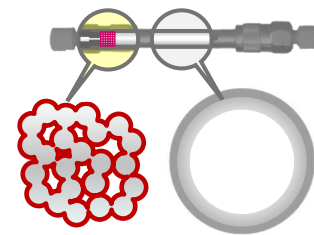
#### Tubing only – PS coated



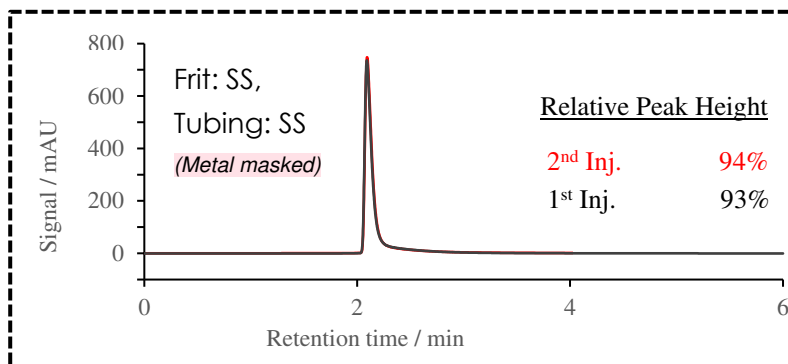
#### Degree of Suppression

Frit > Tubing (larger surface area = greater impact)

#### Frit only – PS coated



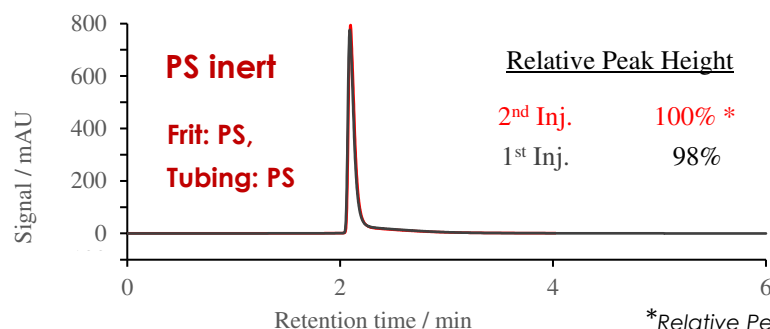
PS inert (Tubing & Frit: PS coated) suppresses nonspecific adsorption.



#### Metal masking effect (temporary)

Chelating agents (e.g., phosphate, EDTA) temporarily improve peak shape of chelating compounds

— **unsuitable for LC/MS.**



#### 'PS inert' column hardware

PS inert suppress metal interactions more effectively and durably without chelating agents

— **suitable for LC/MS.**

\*Relative Peak Height (Normalized to 100% at "2<sup>nd</sup> Injection on PS Inert")