

Analysis of Polyphenol in Food by HPLC

Polyphenols are found in almost all plants and are thought to reduce the risk of cancer and cardiovascular disease in recent years. Among them, resveratrol is one of the polyphenolic antioxidants found in red wine and sold as a nutritional supplement. This note describes a determination method for resveratrol in red wine.

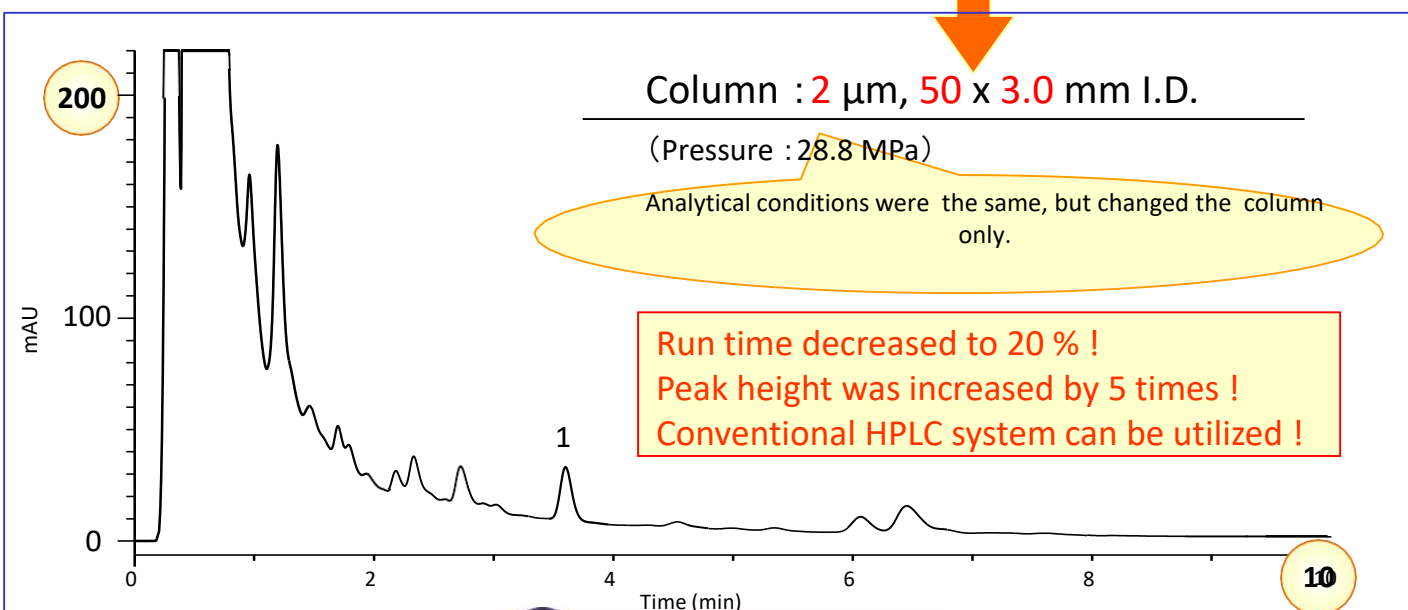
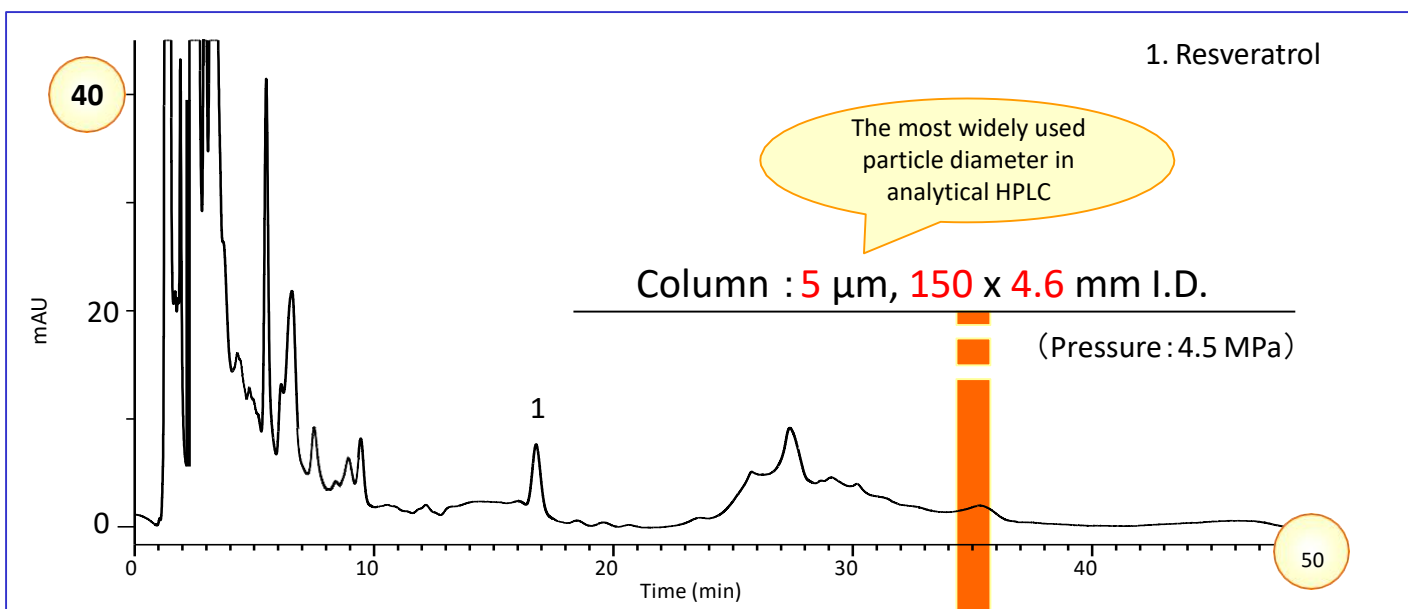
In the analysis, a conventional HPLC system, which is usually used with 5 μm particle columns, was utilized with a 2 μm particle column. Only to switch the particle size from 5 μm to 2 μm improved the sensitivity and reduced the run time significantly. (K.Suzuki)

Conditions

Column	: Inertsil ODS-3
Eluent	: A) CH_3CN B) H_2O A/B = 20/80, v/v (Mixed by a gradient mixer)
Flow rate	: 1.0 mL/min
Col. Temp.	: 40 °C
Detection	: UV 310 nm
Inj. Vol.	: 20 μL

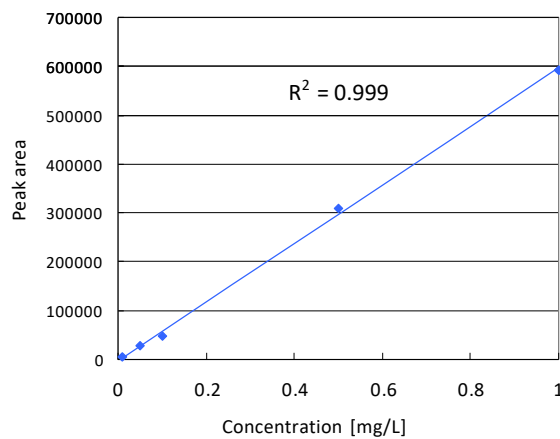
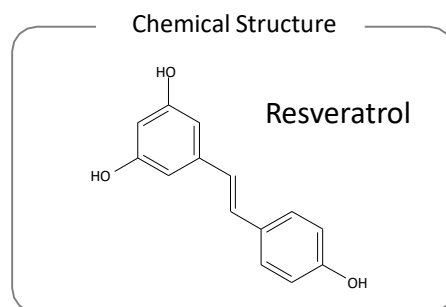
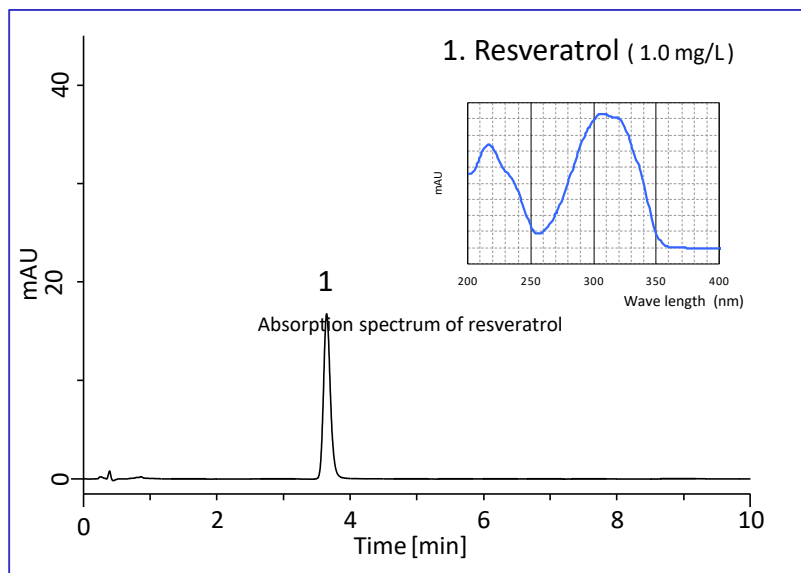
An analysis of resveratrol in red wine

Filtrate of red wine was injected into the HPLC system.



A chromatogram obtained from standard solution

(Inertsil ODS-3 (2 μm, 50 x 3.0 mm I.D.) was used.)



The calibration curve

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