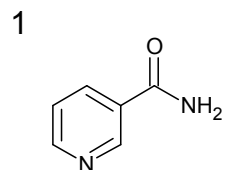
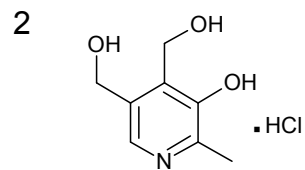


# HILIC Separation of Water-Soluble Vitamins (1)

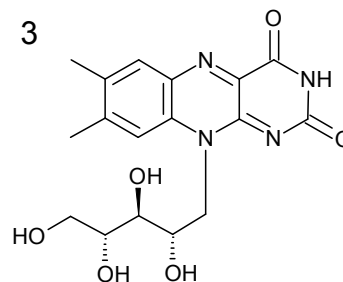
## Structures of Analytes



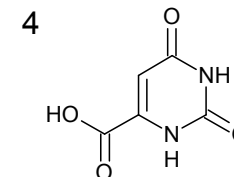
Nicotinamide



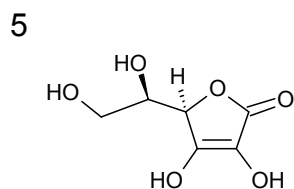
Pyridoxine hydrochloride



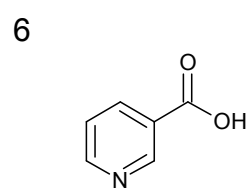
Riboflavin



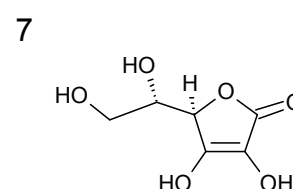
Orotic acid



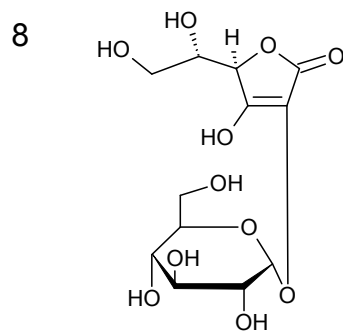
Erythorbic acid  
(D-Isoascorbic acid)



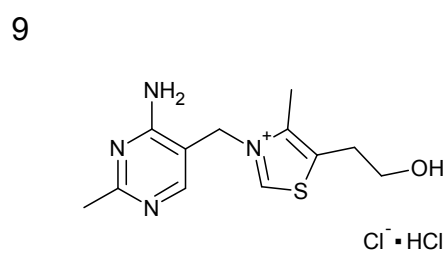
Nicotinic acid



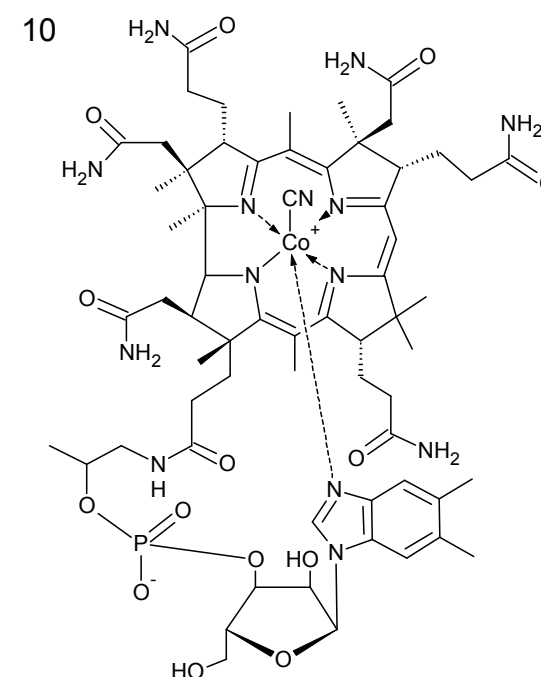
L-Ascorbic acid



2-O- $\alpha$ -D-Glucopyranosyl-L-ascorbic acid



Thiamine hydrochloride



Cyanocobalamin

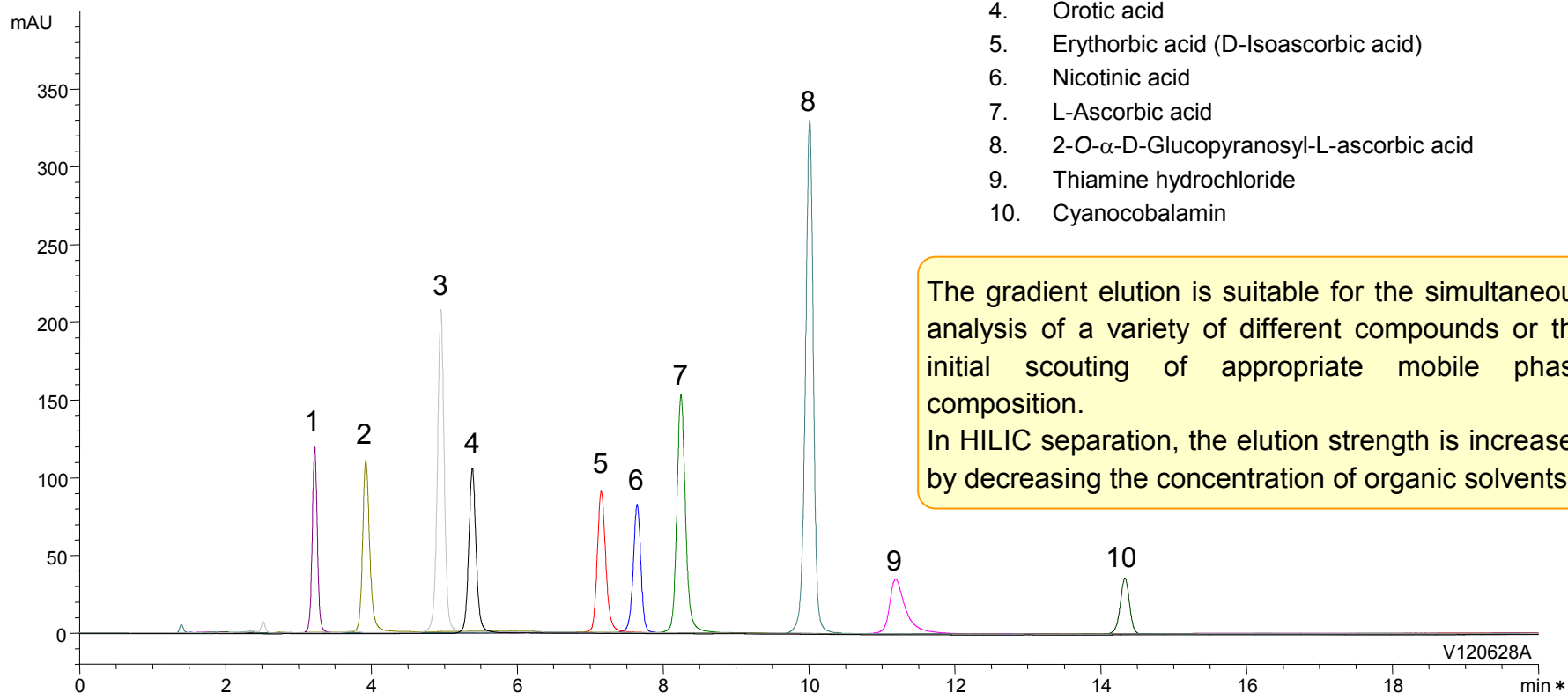
# HILIC Separation of Water-Soluble Vitamins (2)

## Gradient Analysis on YMC-Triart Diol-HILIC

YMC-Triart Diol-HILIC

New!

1. Nicotinamide
2. Pyridoxine hydrochloride
3. Riboflavin
4. Orotic acid
5. Erythorbic acid (D-Isoascorbic acid)
6. Nicotinic acid
7. L-Ascorbic acid
8. 2-O- $\alpha$ -D-Glucopyranosyl-L-ascorbic acid
9. Thiamine hydrochloride
10. Cyanocobalamin



The gradient elution is suitable for the simultaneous analysis of a variety of different compounds or the initial scouting of appropriate mobile phase composition.

In HILIC separation, the elution strength is increased by decreasing the concentration of organic solvents.

Column : YMC-Triart Diol-HILIC (5  $\mu$ m, 12 nm)  
150 X 3.0 mm I.D.

Eluent : A) water/**acetonitrile** (5/95) containing 10 mM CH<sub>3</sub>COONH<sub>4</sub>  
B) water/**acetonitrile** (50/50) containing 10 mM CH<sub>3</sub>COONH<sub>4</sub>  
**10-80%B** (0-20 min)

Flow rate : 0.425 mL/min

Temperature : 40°C

Detection : UV at 254 nm

Injection : 4  $\mu$ L (50 ~ 250  $\mu$ g/mL)