

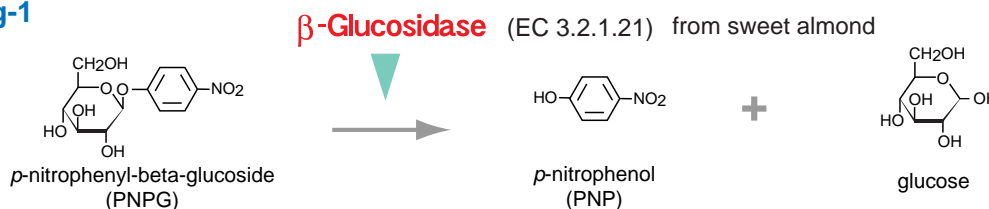
Unison UK-C18

10 x 2 mm

Technical

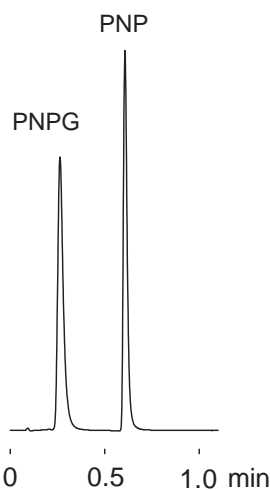
Utilizing a high-throughput column for enzymatic reaction analysis

Fig-1

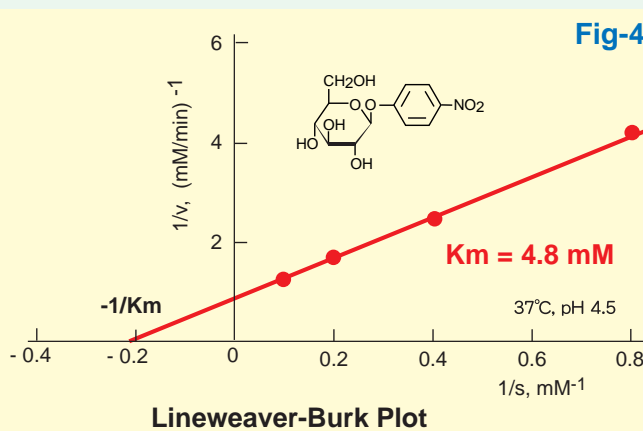
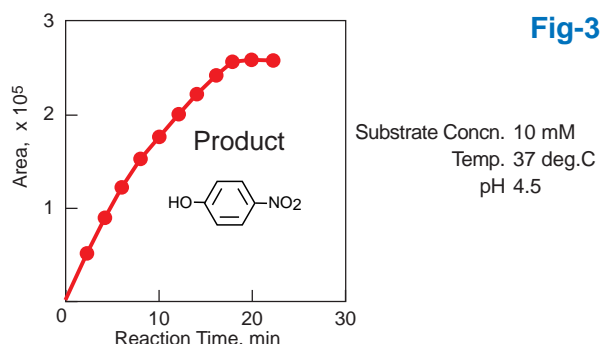


Substrate and Product

Fig-2



Unison UK-C18
 10 x 2 mm
 A: 0.1% AcOH
 B: acetonitrile
 10-90%B (0-1min)
 0.5 mL/min
 37 deg.C, 320 nm



How can a high-throughput column help you in enzymatic reaction analysis?

These columns offer:

- 1) selective detection that does not refuse denied substrates
- 2) high-speed reactive pursuit in tens of second units

This gives you the power to pursue fast enzymatic reactions in 1 minute units.

The reaction of beta-Glucosidase which hydrolyze the beta-glucan, is shown in figure 1. The Unison UK-C18 10x2mm conducted a high-speed analysis of the substrate PNPG and reactive product PNP in under 1 minute (see figure 2). By using this type of analysis, you can measure your production speed in clear units (see figure 3). Moreover, you can determine affinity or Michaelis constant of the enzyme (beta-Glucosidase) and substrate (PNPG) from the initial velocity of the substrate's density dependence (see figure 4).

Different from the conventional measurement of a mixture with a spectrophotometer, you can pursue the actual product directly with high-speed HPLC. You can expect to optimize your search for enzyme inhibitors.

Your analysis time in tens of seconds...our superior high-speed HPLC column brings results to your work in enzymatic chemistry.