

# SHINWA EXPRESS

*Application*2016  
A p r i l

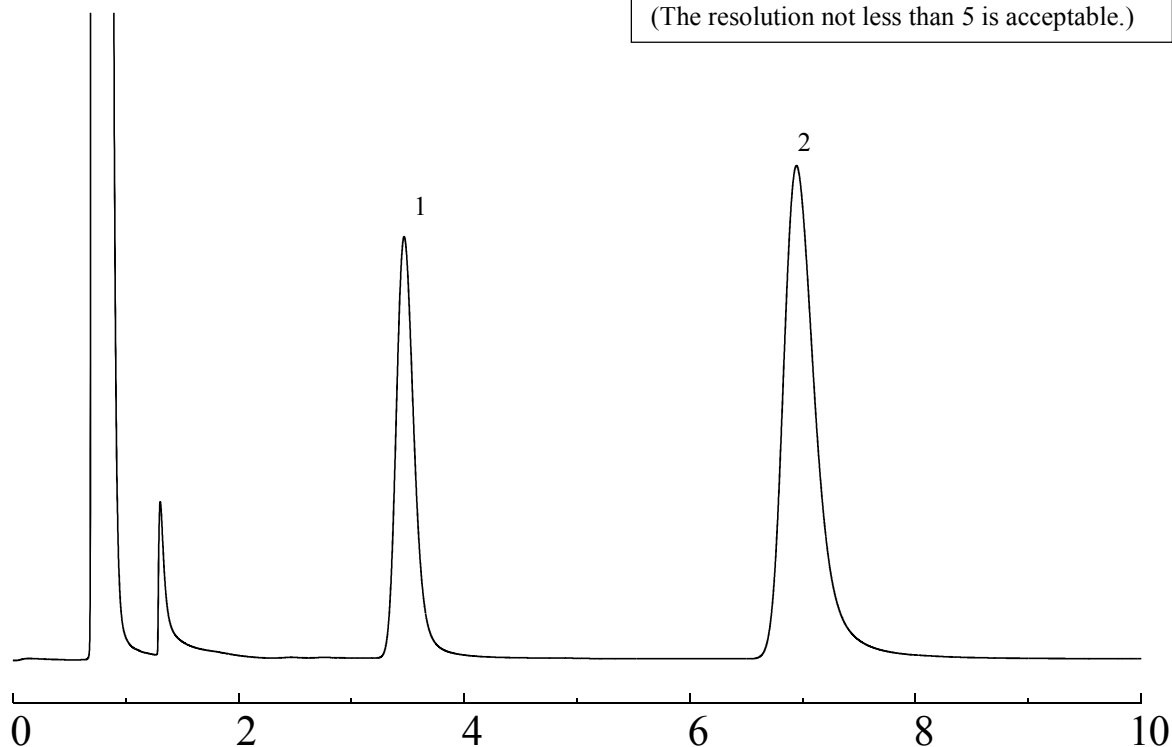
VOL. 82

## Analysis of valproate sodium using Shinwasorb

Valproate sodium is used as one of the antiepileptic drug.  
Shown below is an example of valproate sodium using a column packed with a Shinwasorb packing material.

DEGA+H<sub>3</sub>PO<sub>4</sub> 2.5+0.5% Shinwasorb-S 80/100

1. n-valeric acid
  2. valproic acid
- The resolution between the n-valeric acid and valproic acid: 8.8  
(The resolution not less than 5 is acceptable.)



Column: 2.1 m x 3.2 mm I.D. Glass  
Sample: n-valeric acid, valproic acid/ formic acid, methyl acetate (1:1)  
Column temp.: 145°C  
Injection port temp.: 200°C

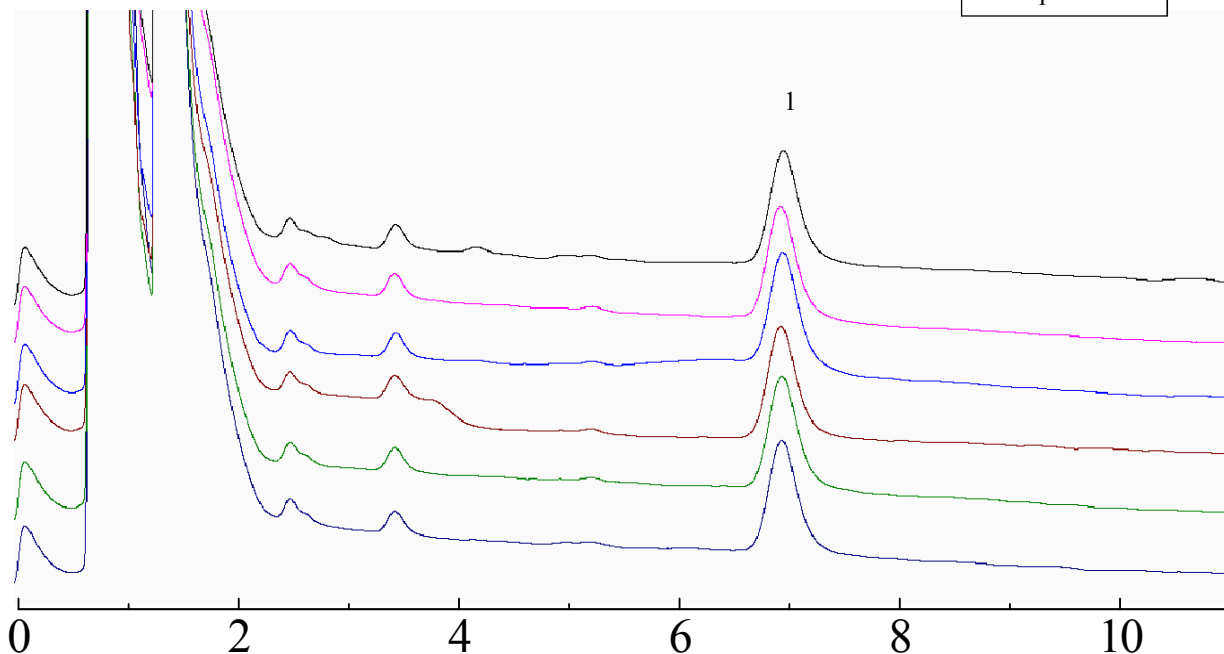
Sample volume: 2.0 µL  
Carrier gas: 35 mL/min N<sub>2</sub>  
Detector: FID 200°C

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**DEGA+H<sub>3</sub>PO<sub>4</sub> 2.5+0.5% Shinwasorb-S 80/100**

1. valproic acid



**System suitability**

Column performance: The resolution between the n-valeric acid and valproic acid: 8.8  
(The resolution not less than 5 is acceptable.)

Column performance: relative standard deviation for rate of peak area is 1.04%  
(The relative standard deviation of the ratio of the sum of the peak areas not more than 5.0% is acceptable.)

|                       |  |                |                          |
|-----------------------|--|----------------|--------------------------|
| Column:               | 2.1 m x 3.2 mm I.D. Glass  | Sample volume: | 2.0 $\mu$ L              |
| Sample:               | n-valeric acid, valproic acid/ formic acid, methyl acetate (1:1) | Carrier gas:   | 35 mL/min N <sub>2</sub> |
| Column temp.:         | 145°C  | Detector:      | FID 200°C                |
| Injection port temp.: | 200°C  |                |                          |

■ Packing material specifications and price ■

| Product name   | Weight | Price      |
|--|--------|------------|
| DEGA+H <sub>3</sub> PO <sub>4</sub> 2.5+0.5% Shinwasorb-S 80/100 | 25 g   | 20,000 JPY |

■ Packed column specifications and price ■

| Product name   | Column material                | Dimensions          | Price      |
|--|--------------------------------|---------------------|------------|
| DEGA+H <sub>3</sub> PO <sub>4</sub> 2.5+0.5% Shinwasorb-S 80/100 | Glass<br>(For GC-2014 systems) | 2.1 m x 3.2 mm I.D. | 59,600 JPY |

Prices for stainless columns other than for Shimadzu GC systems will differ from that shown above. The prices shown above are accurate as of April 22nd, 2016. Please contact us for pricing.

Please feel free to contact us with questions related to analyses.

Please be aware that specifications and prices are subject to change without prior notification.