

Application note # C-13283

Separation of Chinese Wine using the Avantor® Hichrom HI-WAX Spirit column

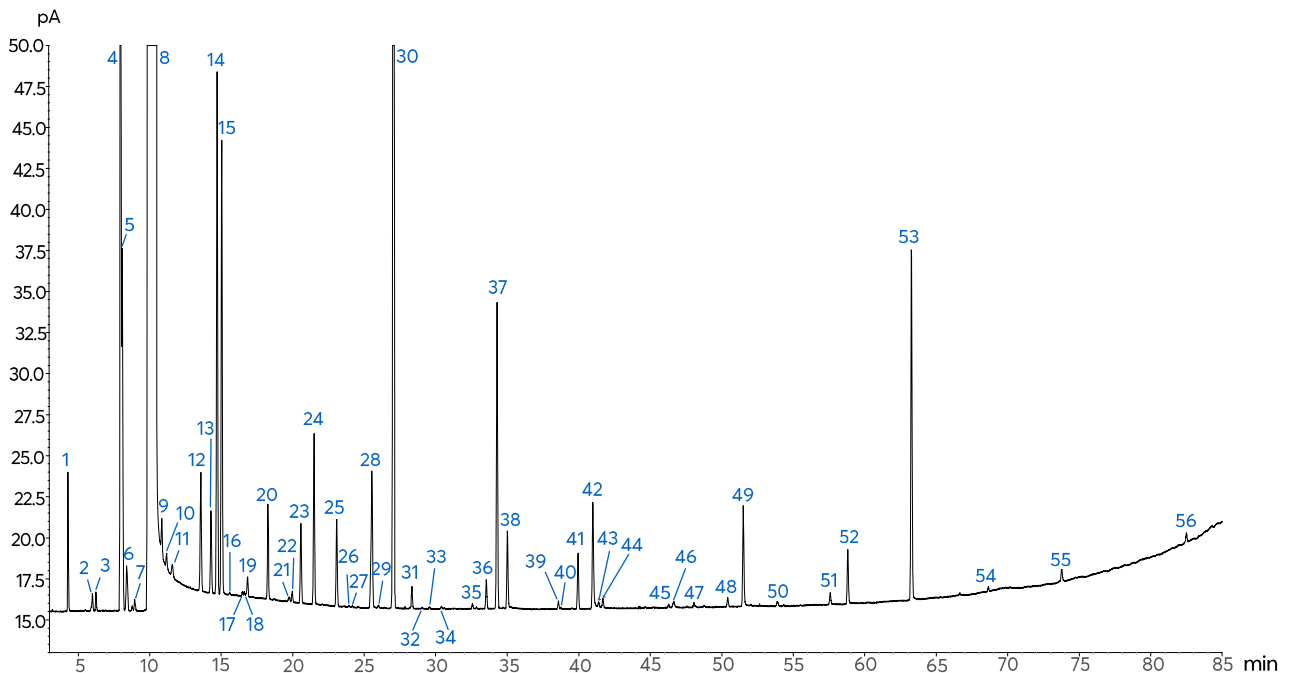


Figure 1: Separation of Chinese Wine using the Avantor® Hichrom HI-WAX Spirit column

Method Details

CONDITIONS

Oven Program:	60 °C (5min), 2 °C/min, 150 °C (1min), 5 °C/min, 230 °C (18min)
Carrier Gas:	Hydrogen 1 mL/min, constant flow
Injector:	Split 250 °C, 1 µL, 25 mL/min
Detector:	FID, 270 °C

The HI-WAX Spirit column is a polyethylene glycol (PEG) column that was specifically designed for the analysis of spirits/alcohol and is demonstrated here for the analysis of Chinese wine. The column has a polar stationary phase that is crossbanded and is classified within the following USP codes: G14, G15, G16, G20, G39. Please note that the maximum temperature limit may change depending on the film thickness.

PEAK IDENTIFICATION

1. Acetaldehyde	15. Tert-amyl alcohol	29. Ethyl heptanoate	43. 1,2-propanediol
2. N-propanal	16. Unknown	30. Ethyl lactate	44. Ethyl decanoate
3. Isobutyraldehyde	17. 2-butanol	31. N-hexanol	45. Butyric acid
4. Ethyl acetate	18. Butyl ethyl butyrate	32. Butyl hexanoate	46. Furfuryl alcohol
5. Acetal	19. N-propanol	33. Ethyl octanoate	47. Diethyl succinate
6. Methanol	20. Ethyl isovalerate	34. Acetic acid	48. Isovaleric acid
7. Acetone	21. Isobutanol	35. Furfural	49. N-valeric acid
8. Propanal	22. Isoamyl acetate	36. Tetramethylpyrazine	50. 2-ethylbutyric acid
9. Isobutyraldehyde	23. 2-pentanol	37. Ethyl nonanoate	51. Ethyl phenylacetate
10. Acetone	24. Ethyl pentanoate	38. Benzaldehyde	52. Ethyl acetate
11. Ethyl formate	25. N-butanol	39. 2,3-butanediol	53. Caproic acid
12. Isovaleraldehyde	26. N-amyl acetate	40. Propionic acid	54. Ethyl laurate
13. Ethyl propionate	27. 2-methylbutyl alcohol	41. 1,4-butanediol	55. Beta-phenylethanol
14. 2-pentanone	28. 3-methylbutanol	42. Isobutyric acid	56. Heptanoic acid

ORDERING TABLE

Product	Details	Dimensions	Part Number
Avantor® Hichrom HI-WAX Spirit	GC Column	0.25mm, 0.20µm, 50m	HI15-25-020-50