

# Pressure Comparison

Particle size: 5 mm

Column dimension: 150x 4.6mm

Mobile phase: Methanol/water (50:50)

Flow rate: 1.0 mL/min

Temperature: 40 °C

Column	Press. MPa
<b>Sunniest C18</b>	<b><u>6.4</u></b>
<b>Sunniest RP-AQUA</b>	<b><u>6.5</u></b>
Acclaim PolarAdvantage II	7.4
Acclaim 120 C18	7.9
ACE C18	7.2
Ascentis C18	7.7
Atlantis T3 C18	7.6
SunFire C18	8.7
X-Bridge C18	8.3
Cadenza 5CD-C18 (E1)	6.9
Unison US-C18 (E2)	<b><u>6.2</u></b>
CAPCELLPAK C18 MG (F1)	<b><u>6.6</u></b>
CAPCELLPAK C18 MG II (F2)	<b><u>6.5</u></b>

**<6.8**

Column	Press. MPa
CAPCELLPAK C18 MG III (F3)	<b><u>6.4</u></b>
Develosil ODS-UG (G1)	8.0
Gemini-NX C18	<b><u>5.8</u></b>
Hiber Purospher STAR RP-18e	10.9
Inertsil ODS-4 (K1)	8.1
Inertsil ODS-SP (K2)	8.1
Inertsil ODS-3 (K3)	<b><u>6.0</u></b>
L-column2 ODS (L1)	<b><u>6.4</u></b>
Shim-pack VP-ODS (M1)	<b><u>6.1</u></b>
TSKgel ODS-100V (N1)	<b><u>6.1</u></b>
TSKgel ODS-100Z (N2)	7.2
Wakopak Navi C18-5 (O1)	6.9
YMC-Pack Pro C18 (P1)	9.7
ZORBAX Exlipse Plus C18	<b><u>5.9</u></b>

**<6.8**

# Basic Compound 1 Comparison

Particle size: 5 mm

Column dimension: 150x 4.6mm

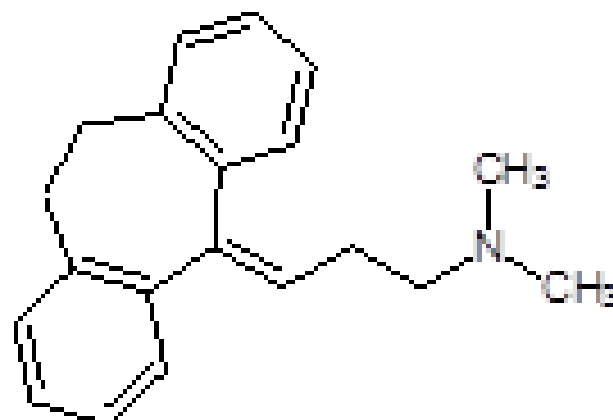
Mobile phase: Acetonitrile/20mM

phosphate buffer pH 7.0 (60:40)

Flow rate: 1.0 mL/min

Temperature: 40 °C

Sample: Amitriptyline



Column	As	N	Column	As	N
<b>Sunniest C18</b>	<b><u>1.16</u></b>	<b><u>14,000</u></b>	CAPCELLPAK C18 MG III (F3)	7.75	3,600
<b>Sunniest RP-AQUA</b>	<b><u>1.24</u></b>	<b><u>13,800</u></b>	Develosil ODS-UG (G1)	2.14	8,700
Acclaim PolarAdvantage II	5.19	3,300	Gemini-NX C18	<b><u>1.09</u></b>	9,500
Acclaim 120 C18	2.19	<b><u>14,200</u></b>	Hiber Purospher STAR RP-18e	2.01	<b><u>11,200</u></b>
ACE C18	3.25	5,300	Inertsil ODS-4 (K1)	<b><u>1.30</u></b>	<b><u>12,000</u></b>
Ascentis C18	1.74	8,300	Inertsil ODS-SP (K2)	2.92	8,000
Atlantis T3 C18	1.97	10,700	Inertsil ODS-3 (K3)	2.70	6,200
SunFire C18	1.59	10,100	L-column2 ODS (L1)	<b><u>0.99</u></b>	<b><u>11,400</u></b>
X-Bridge C18	<b><u>1.03</u></b>	10,000	Shim-pack VP-ODS (M1)	3.44	6,700
Cadenza 5CD-C18 (E1)	3.07	8,500	TSKgel ODS-100V (N1)	1.71	10,000
Unison US-C18 (E2)	2.52	9,200	TSKgel ODS-100Z (N2)	2.13	<b><u>11,500</u></b>
CAPCELLPAK C18 MG (F1)	2.23	50	Wakopak Navi C18-5 (O1)	11.1	2,100
CAPCELLPAK C18 MG II (F2)	2.01	10,900	YMC-Pack Pro C18 (P1)	3.77	7,400
			ZORBAX Exlipse Plus C18	3.28	5,900

**1<<1.5 >11000**

**1<<1.5 >11000**

# Basic Compound 2 Comparison

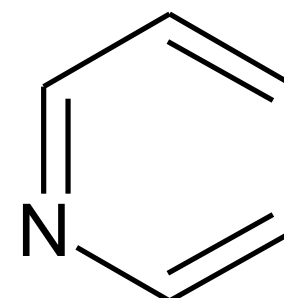
Particle size: 5 mm Column dimension: 150x 4.6mm

Mobile phase: Methanol/water (30:70)

Flow rate: 1.0 mL/min

Temperature: 40 °C

Sample: Pyridine



Column	As	N
<b>Sunniest C18</b>	<b><u>1.34</u></b>	<b><u>4,600</u></b>
<b>Sunniest RP-AQUA</b>	<b><u>1.37</u></b>	3,800
Acclaim PolarAdvantage II	2.57	2,300
Acclaim 120 C18	2.44	3,300
ACE C18	1.51	3,100
Ascentis C18	3.26	700
Atlantis T3 C18	1.79	1,700
SunFire C18	1.87	<b><u>5,000</u></b>
X-Bridge C18	<b><u>1.46</u></b>	<b><u>5,400</u></b>
Cadenza 5CD-C18 (E1)	3.03	1,100
Unison US-C18 (E2)	2.60	1,900
CAPCELLPAK C18 MG (F1)	<b><u>0.99</u></b>	2,200
CAPCELLPAK C18 MG II (F2)	<b><u>0.80</u></b>	1,400

**1 << 1.5 > 4500**

Column	As	N
CAPCELLPAK C18 MG III (F3)	<b><u>0.67</u></b>	1,600
Develosil ODS-UG (G1)	1.56	<b><u>5,500</u></b>
Gemini-NX C18	2.45	1,400
Hiber Purospher STAR RP-18e	<b><u>1.03</u></b>	400
Inertsil ODS-4 (K1)	<b><u>0.70</u></b>	<b><u>4,500</u></b>
Inertsil ODS-SP (K2)	4.30	2,700
Inertsil ODS-3 (K3)	<b><u>1.14</u></b>	3,500
L-column2 ODS (L1)	<b><u>0.78</u></b>	180
Shim-pack VP-ODS (M1)	1.95	1,600
TSKgel ODS-100V (N1)	<b><u>0.98</u></b>	1,300
TSKgel ODS-100Z (N2)	<b><u>1.22</u></b>	<b><u>5,300</u></b>
Wakopak Navi C18-5 (O1)	2.70	4,100
YMC-Pack Pro C18 (P1)	1.54	<b><u>7,600</u></b>
ZORBAX Exlipse Plus C18	<b><u>0.74</u></b>	500

**1 << 1.5 > 4500**

# Metal Chelating Compound Comparison

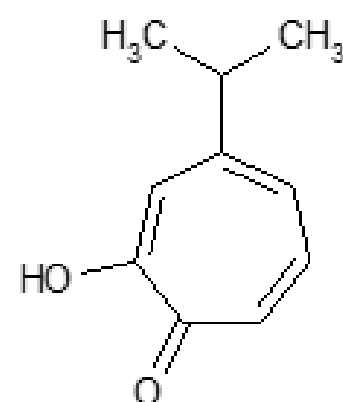
Particle size: 5 mm Column dimension: 150x 4.6mm

Mobile phase: Acetonitrile/20mM  
Phosphoric acid (40:60)

Flow rate: 1.0 mL/min

Temperature: 40 °C

Sample: Hinokitiol



Column	As	N
<b>Sunniest C18</b>	<b><u>1.37</u></b>	6,900
<b>Sunniest RP-AQUA</b>	<b><u>1.30</u></b>	5,700
Acclaim PolarAdvantage II	3.60	6,900
Acclaim 120 C18	2.07	8,900
ACE C18	4.06	1,300
Ascentis C18	7.25	4,200
Atlantis T3 C18	3.88	8,400
SunFire C18	5.77	40
X-Bridge C18	4.12	500
Cadenza 5CD-C18 (E1)	<b><u>1.34</u></b>	700
Unison US-C18 (E2)	2.42	6,700
CAPCELLPAK C18 MG (F1)	4.76	9,100
CAPCELLPAK C18 MG II (F2)	1.63	2,200

**1 << 1.5 > 10000**

Column	As	N
CAPCELLPAK C18 MG III (F3)	2.18	7,600
Develosil ODS-UG (G1)	4.47	700
Gemini-NX C18	<b><u>1.36</u></b>	8,200
Hiber Purospher STAR RP-18e	2.67	5,900
Inertsil ODS-4 (K1)	2.41	7,900
Inertsil ODS-SP (K2)	2.36	6,400
Inertsil ODS-3 (K3)	<b><u>1.43</u></b>	8,100
L-column2 ODS (L1)	2.27	7,600
Shim-pack VP-ODS (M1)	---	---
TSKgel ODS-100V (N1)	1.99	<b><u>11,200</u></b>
TSKgel ODS-100Z (N2)	1.89	<b><u>11,200</u></b>
Wakopak Navi C18-5 (O1)	4.23	500
YMC-Pack Pro C18 (P1)	3.15	<b><u>10,200</u></b>
ZORBAX Exlipse Plus C18	3.85	8,000

**1 << 1.5 > 10000**

# Acidic Compound Comparison

Particle size: 5 mm Column dimension: 150x 4.6mm

Mobile phase: Acetonitrile/20mM  
Phosphoric acid (2:98)

Flow rate: 1.0 mL/min

Temperature: 40 °C

Sample: Formic acid

Column	As	N	k
<b>Sunniest C18</b>	<b><u>1.33</u></b>	<b><u>4,700</u></b>	0.39
<b>Sunniest RP-AQUA</b>	<b><u>1.29</u></b>	<b><u>4,600</u></b>	0.36
Acclaim PolarAdvantage II	3.78	1,600	0.20
Acclaim 120 C18	<b><u>1.30</u></b>	<b><u>4,700</u></b>	0.33
ACE C18	<b><u>1.29</u></b>	<b><u>4,600</u></b>	0.36
Ascentis C18	3.81	1,600	0.37
Atlantis T3 C18	<b><u>1.36</u></b>	<b><u>4,800</u></b>	0.43
SunFire C18	---	50	0.29
X-Bridge C18	<b><u>1.36</u></b>	4,000	0.31
Cadenza 5CD-C18 (E1)	<b><u>1.23</u></b>	<b><u>4,600</u></b>	0.39
Unison US-C18 (E2)	<b><u>1.23</u></b>	<b><u>5,000</u></b>	0.36
CAPCELLPAK C18 MG (F1)	<b><u>1.36</u></b>	4,300	0.41
CAPCELLPAK C18 MG II (F2)	<b><u>1.33</u></b>	4,300	0.41

**1<<1.4 >4500**

Column	As	N	k
CAPCELLPAK C18 MG III (F3)	<b><u>1.30</u></b>	<b><u>4,700</u></b>	0.37
Develosil ODS-UG (G1)	<b><u>1.34</u></b>	4,200	0.24
Gemini-NX C18	---	1,700	0.21
Hiber Purospher STAR RP-18e	1.65	3,800	0.40
Inertsil ODS-4 (K1)	<b><u>1.30</u></b>	<b><u>4,900</u></b>	0.41
Inertsil ODS-SP (K2)	<b><u>1.26</u></b>	<b><u>5,000</u></b>	0.36
Inertsil ODS-3 (K3)	1.86	3,600	0.43
L-column2 ODS (L1)	<b><u>1.36</u></b>	<b><u>4,500</u></b>	0.36
Shim-pack VP-ODS (M1)	---	1,300	0.22
TSKgel ODS-100V (N1)	<b><u>1.25</u></b>	<b><u>5,400</u></b>	0.39
TSKgel ODS-100Z (N2)	1.48	4,400	0.46
Wakopak Navi C18-5 (O1)	<b><u>1.38</u></b>	<b><u>4,700</u></b>	0.39
YMC-Pack Pro C18 (P1)	2.56	3,100	0.36
ZORBAX Exlipse Plus C18	<b><u>1.36</u></b>	3,700	0.35

**1<<1.4 >4500**