

Osaka Soda's new C₁₈ column of high-carbon is now released

SUPERIOREXII ODS is a successor model of SUPERIOREX ODS with not only the same feature of high carbon load but the greatly improved durability and lot difference. This column also has the huge loading capacity and is suitable for semi preparative. It can be used for general purposes such as in an analysis of isomer with inadequate separation or retention.

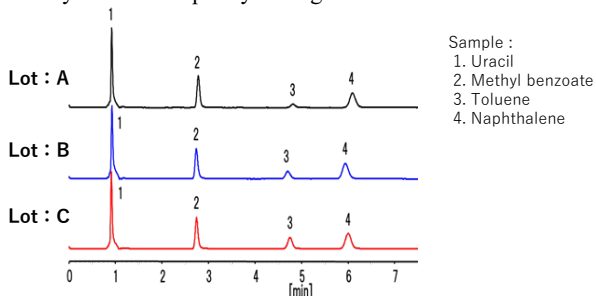
Physical property & specifications

Functional group	Pore size (Å)	Particle size (μm)	Specific surface area (m ² /g)	C%	Density (μmol/m ²)	Pressure resistance	pH range	USP
C ₁₈ (octadecyl group)	100	3	450	25	2.6	20 / 50*	2~10	L1
C ₁₈ (octadecyl group)	100	5	450	25	2.6	20	2~10	L1

* Pressure resistance will be 50MPa with column of Particle size of 3μm and Inner diameter of 2.1mm.

Outstanding lot reproducibility

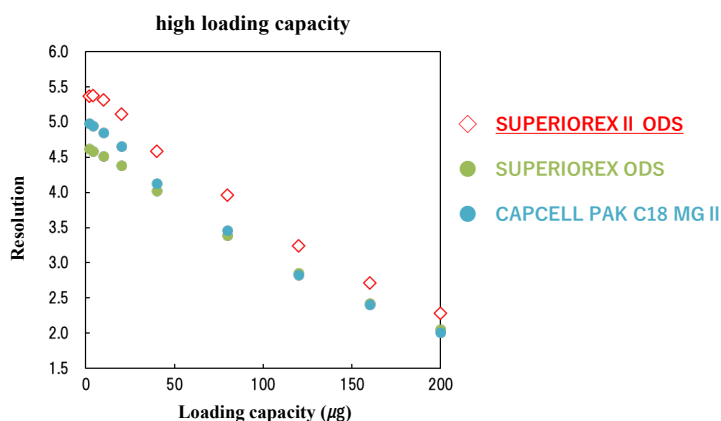
We evaluated the lot difference using four kinds of general samples of compounds. The figure shows the substantial lot reproducibility with the retention time steady and the peak in shape. SUPERIOREXII ODS can be highly recommended for everyday analyses such as quality management.



[HPLC Conditions]
 Column size : SUPERIOREX II ODS S3 ; 2.1 mm i.d. x 100 mm
 Mobile phase : H₂O / CH₃CN = 40 / 60
 Flow rate : 200 μL/min
 Temperature : 35 °C
 Detection : UV 254 nm
 Inj. vol. : 1 μL
 Sample dissolved in : CH₃OH

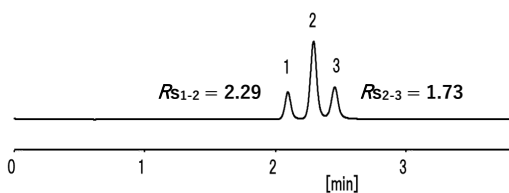
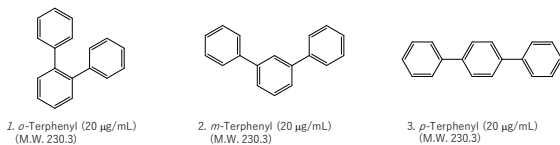
High loading capacity

The relation between the injection amount and separation with sample of methyl benzoate and ethyl benzoate was examined in one of our researches. The loading capacity of SUPERIOREXII ODS is superior to SUPERIOREX ODS and CAPCELL PAK C18 MGII.



Separation of isomer

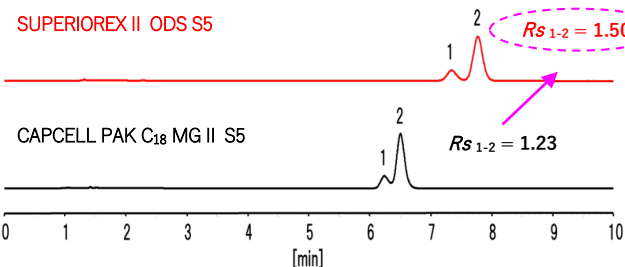
It shows an example analysis of three kinds of isomer of aromatic hydrocarbons Terphenyl (*o*-, *m*-, *p*-). SUPERIOREXII ODS has the high plane recognition capability and effective for separation of such isomer.



[HPLC Conditions]
 Column : SUPERIOREX II ODS S3 ; 2.1 mm i.d. x 100 mm
 Mobile phase : H₂O / CH₃CN = 15 / 85
 Flow rate : 300 μL/min
 Temperature : 40 °C
 Detection : UV 254 nm
 Inj. vol. : 2 μL
 Sample dissolved in : 85 vol% CH₃CN

Analysis example of vitamin D₂ and D₃

You can see the comparison of separation behavior of vitamin D₂ and D₃ between Osaka Soda's CAPCELL PAK C18 MGII and the new SUPERIOREXII ODS. CAPCELL PAK C18 MGII also achieves separation of vitamin D₂ and D₃ but the degree of separation is improved using the new column. SUPERIOREXII ODS can be recommended for the second choice for your analyses when C18 column used for general purposes gives you inadequate retention and separation.



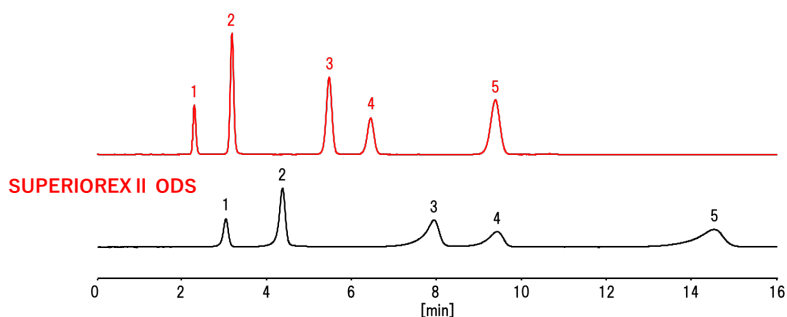
[HPLC Conditions]
 Column size : 4.6 mm i.d. x 150 mm
 Mobile phase : H₂O / CH₃OH = 2 / 98
 Flow rate : 1.0 mL/min
 Temperature : 40 °C
 Detection : UV 265 nm
 Inj. vol. : 7 μL
 Sample : 1. Vitamin D₂ 2. Vitamin D₃ (100 μg/mL each)
 Sample dissolved in : CH₃OH

Analysis example of flavonoid

We compared the peak shape with a high-carbon load column from a competitor's on five kinds of flavonoid (Rutin, Myricetin, Quercetin, Luteolin, Kaempferol) You can see the peak is out of shape with the competitor's but with SUPERIOREXII ODS the peak is great shape.

[HPLC Conditions]

Column size : S5 ; 4.6 mm i.d. x 150 mm
 Mobile phase : 0.1 vol% HCOOH / CH₃OH = 50 / 50
 Flow rate : 1.0 mL/min
 Temperature : 40 °C
 Detection : UV 380 nm
 Inj. vol. : 7 µL
 Sample : 1. Rutin 2. Myricetin 3. Quercetin 4. Luteolin 5. Kaempferol
 (50 µg/mL each)
 Sample dissolved in : 50 vol% CH₃OH



Other high-carbon load column on the market

Product Lineup

«SUPERIOREX II ODS 3 µm»

Product Number	Particle size(µm)	Inner diameter(mm)	Length (mm)
44521	3	2.1	35
44522	3	2.1	50
44523	3	2.1	75
44524	3	2.1	100
44525	3	2.1	150
44526	3	2.1	250
44531	3	3.0	35
44532	3	3.0	50
44533	3	3.0	75
44534	3	3.0	100
44535	3	3.0	150
44536	3	3.0	250
44551	3	4.6	35
44552	3	4.6	50
44553	3	4.6	75
44554	3	4.6	100
44555	3	4.6	150
44556	3	4.6	250

«SUPERIOREX II ODS 5 µm»

Product Number	Particle size(µm)	Inner diameter(mm)	Length (mm)
44021	5	2.1	35
44022	5	2.1	50
44023	5	2.1	75
44024	5	2.1	100
44025	5	2.1	150
44026	5	2.1	250
44031	5	3.0	35
44032	5	3.0	50
44033	5	3.0	75
44034	5	3.0	100
44035	5	3.0	150
44036	5	3.0	250
44051	5	4.6	35
44052	5	4.6	50
44053	5	4.6	75
44054	5	4.6	100
44055	5	4.6	150
44056	5	4.6	250

«SUPERIOREX II ODS 5 µm Guard cartridge column(incl. 2)»

Product Number	Particle size(µm)	Inner diameter(mm)	Length (mm)
12082	5	2.0	10
12083	5	4.0	10

*Use together with cartridge holder 10L(product number:12415)

«SUPERIOREX II ODS 5 µm semi preparative column»

Product Number	Particle size(µm)	Inner diameter(mm)	Length (mm)
44072	5	10	50
44074	5	10	100
44075	5	10	150
44076	5	10	250
44082	5	20	50
44084	5	20	100
44085	5	20	150
44086	5	20	250



Osaka Soda Co., Ltd.

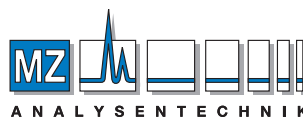
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