



Article No.: A46018

Articlename: SYS986502200 HPLC Plus system with quaternary LPG pump and 3D diode array detector

## HPLC System for Food Analysis

### Analytical HPLC system up to 862 bar with DAD detection

This gradient HPLC system perfectly meets even sophisticated analysis demands up to the UHPLC range. It offers first class performance and quality „Made in Germany“. This system features a low pressure gradient pump (AZURA® P 6.1L), the autosampler (AZURA® AS 6.1L), a column thermostat CT 2.1 and a DAD 2.1L UV/VIS detector with 8-variable UV measuring channels from 190 - 750 nm. The system is controlled via KNAUER

ClarityChrom® chromatography software.

The low-pressure gradient pump P 6.1L operates with very precise valve control and features an internal degasser for efficient online-degassing of the eluent. The mixing chamber of the pump is available in three different volumes depending on the application (100 µl is standard). The DAD 2.1L features a novel light path and flow cell architecture with improved handling and excellent performance. The frontal lamp and cell change ensures easy and secure maintenance. The temperature controlled optical bench minimizes signal drift. The wide f

**Help** on allows the DAD 2.1L to be

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easily adapted to your needs. The autosampler AS 6.1L can inject up to 768 samples from microtiter plates or 108 standard 2 ml vial samples. Minimum injection volume is 0.1 µl. The column thermostat AZURA CT 2.1 can hold up to 6 columns with a max. length of 300 mm and keep the temperature constant in the range of 5 °C to 85 °C. With the Mobile Control software you have your AZURA devices under control: Monitor the status of several devices at the same time from the tablet or simply make settings. This control software is the perfect complement to your chromatography data system. The user management ensures that system parameters can only be changed by logged-in users. KNAUER ClarityChrom® is a powerful, yet easy-to-use chromatography software (or chromatography data system, CDS) for instrument control, data acquisition and data processing.



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## TECHNICAL DATA

### Analytical system

<b>Application area</b>	HPLC
<b>Pump system</b>	Gradient
<b>Gradient</b>	Quarternary LPG
<b>Injection</b>	Autosampler
<b>Detector</b>	Diode array detection DAD
<b>Software</b>	ClarityChrom
<b>Pressure</b>	862 bar
<b>Column thermostat</b>	Yes

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## SYSTEM COMPONENTS



### **AZURA Eluent tray E 2.1L**

Article No. AZC00

AZURA® Eluent tray E 2.1L for AZURA® devices with a capacity of 6 x 1 l bottles or 4 x 2.5 l bottles or 2 x 5 l bottles, (delivery without bottles)

Type : **Eluent tray**

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### **Set of eluent supply bottles for analytical LPG systems**

Article No. A5324-2

Set of eluent supply bottles, 4 x 1 L bottles for Eluents and 1 x 250 ml bottle for piston backflushing, includes screw caps with holes for eluent tubing

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### **Eluent waste kit for AZURA Analytical systems**

Article No. A59258

Eluent waste kit for all AZURA Analytical systems, incl. filter, waste can and cap

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### AZURA P 6.1L

Article No. APH34EA

AZURA® Pump P 6.1L (LPG), with 10 ml pump head (stainless steel), degasser and mixer (200 µl)

Max. flow rate : **10 ml/min**

Pump head materials : **Stainless Steel**

Gradient : **Low pressure gradient (quaternary)**

Pump features : **Active pulsation compensation, RFID for automatic pump head detection, Integrated pressure sensor, Purge valve (manual), Leak management, Piston seal wash**

Maximum delivery pressure [MPa] : **86 MPa**



### Autosampler AS 6.1

Article No. AAA50AA

AZURA® Autosampler AS 6.1L analytical HPLC autosampler, 862 bar

Maximum back pressure : **862 bar**

Sample loop : **100 µl**

Sample tray cooling : **None**

Autosampler Flow Path : **Analytical**



### Screw neck vial set N9, 1.5 ml, clear, wide opening, 100x

Article No. A0638-6

Vials: Screw neck vials N9 (ø 11.6 mm), 1.5 ml, clear glass, flat bottom, wide opening, with label & scale

Caps: Screw caps blue with septum silicone beige/PTFE white  
100 pcs each

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### AZURA CT 2.1

Article No. ATC00

Column thermostat AZURA CT 2.1 for constant temperatures and reproducible results

Temperature range : 5–85 °C



### AZURA Detector DAD 2.1L

Article No. ADC01

AZURA® Detector DAD 2.1L Diode array detector DAD 2.1L without flow cell 190 - 700 nm, incl. test cell

Detector type : **Diode array detector**

Detection channels : **8 (Digital)/4 (Analog)**

Wavelength range : **190 - 700 nm**

Number of diodes : **256**

Linearity : **> 2.0 AU at 274 nm (ASTM E1657-98)**



### Analytical KNAUER PressureProof UV Flow Cell Cartridge

Article No. AMC38

10 mm path length, 10µl, 1/16", 300 bar, PressureProof Flow cell cartridge for AZURA® Detector DAD/MWD

Flow cell type : **Analytical UV flow cell**

Path length : **10 mm**

Capillary connection : **1/16"**

Max. flow rate : **20 ml/min**

Flow cell volume : **10 µl**

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### **ClarityChrom 8.2.3 - Workstation, autosampler control included**

Article No. A1670

ClarityChrom® single instrument license for one time base

Software name : **ClarityChrom**

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### **ClarityChrom 8.2.3 - PDA extension**

Article No. A1676

ClarityChrom® option for PDA data processing

Software name : **ClarityChrom**

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### **Chromatography Workstation: PC plus monitor**

Article No. A13120

Desktop PC (SFF) for PurityChrom® and ClarityChrom® with 24" monitor, English edition Windows 10 Prof. 64-bit English, Intel® Core™ i5, 8 GB RAM, 256 GB SSD, two network cards

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### **Router 8-Port LAN, WiFi, international**

Article No. A64809INT

WiFi router, 8x LAN GBit RJ-45 ports, 1x WAN GBit RJ-45 port, power plug UK, US or AUS

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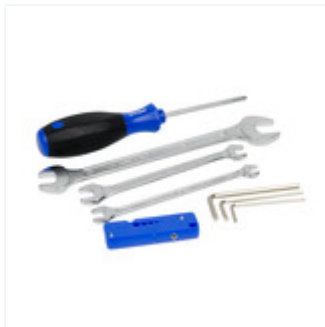
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### **AZURA® Analytical K-Connect start-up kits, stainless steel, 1/32" capillaries with fitting sleeves for 1/16" connections**

Article No. AZF50

Set of precut capillaries 0.18 mm ID, fittings, connectors and adapters, yellow



### **Tool kit AZURA**

Article No. A1033

Tool Kit AZURA® for systems with PEEK or pre-cut capillary kits

Type : **Tool kit**

## **DOCUMENTS AND MORE INFORMATION**

### **AZURA System Selection Guide (V7857US)**

System suggestions for analytical HPLC/UHPLC, FPLC, preparative LC and sample preparation systems. English language, V7857US

Brochure    English

### **AZURA Analytical HPLC and UHPLC brochure**

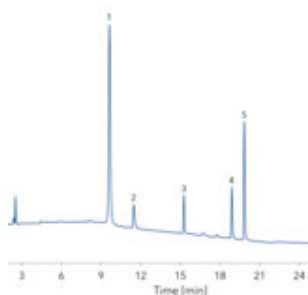
AZURA Analytical HPLC/UHPLC brochure, V7852US, V4, 2017-08

Brochure    English

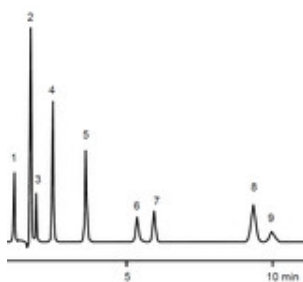
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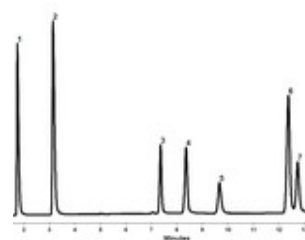
## APPLICATIONS FOR THIS PRODUCT



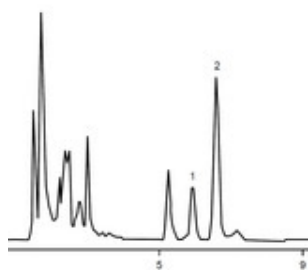
**Determination of  
biogenic amines  
with automated  
precolumn  
derivatization**



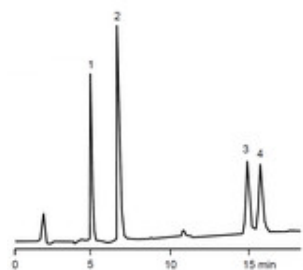
**Separation of  
Additives in  
Softdrinks I**



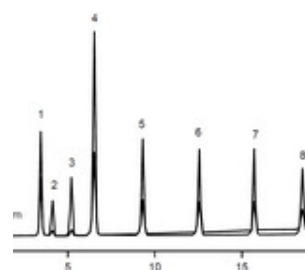
**Separation of  
Additives in  
Softdrinks II**



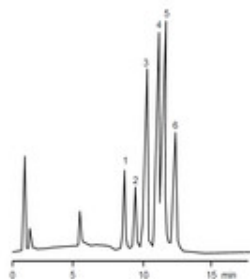
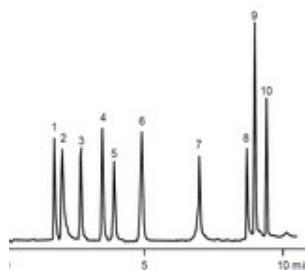
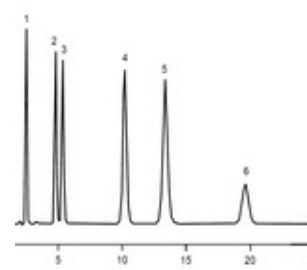
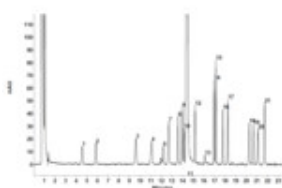
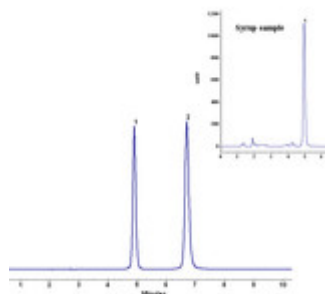
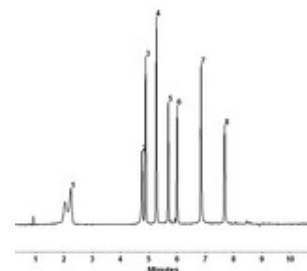
**Analysis of**



**Analysis of**

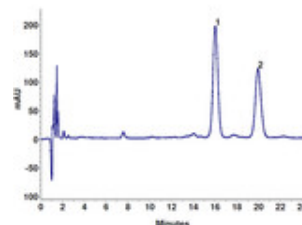
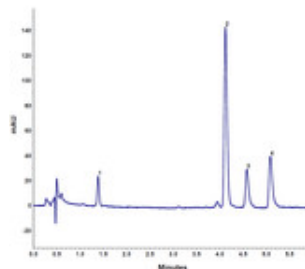
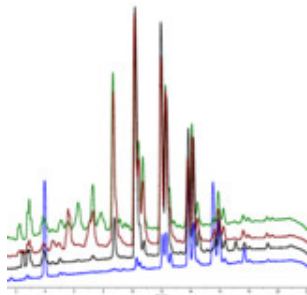


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**Flavonoids in fruit  
juice****Determination of  
Sterols****Fusarium  
Mycotoxins****Separation of water  
soluble Vitamins****Preservatives****Separation of  
Tocopherols and  
Vitamin D2****Separation of AQC  
Derivatized Amino****Separation of Furfural  
and 5-****Determination of**[Schedule your free consultation now](#)

## Acids with UV Detection

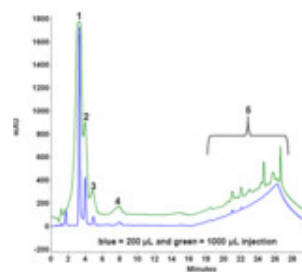
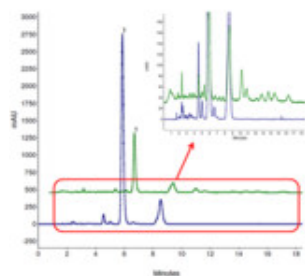
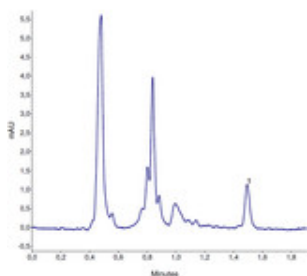
## (hydroxymethyl)furfural in syrup



## Identification of different Oils

## Determination of Tocopherols (I)

## Separation of Bisabolol oxide A and B from Camellia extract



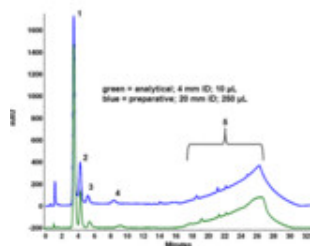
## Determination of Urea in HILIC mode

## Analytic separation of Piperine from

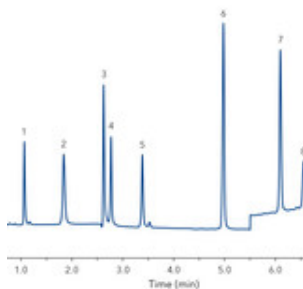
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**black Pepper for  
scale up to  
preparative HPLC**

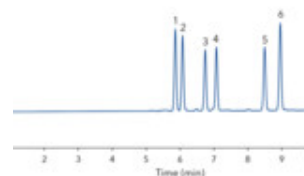
**Flavours from  
Extract**



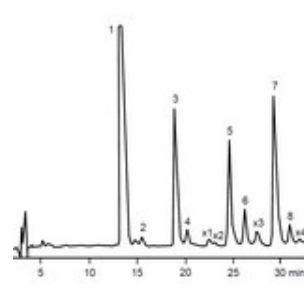
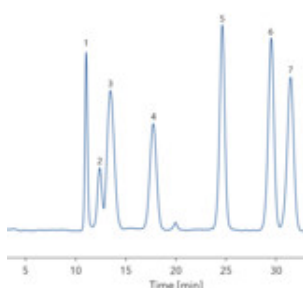
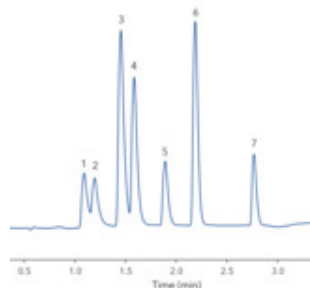
**Scale-Up for  
Preparative  
Separation of Apple  
Flavours from  
Extract**



**Separation of  
ascorbic acid and  
vitamin B complexes  
- essentially required  
nutrients**



**Oh so sweet -  
Quantification of  
steviol glycosides in  
Stevia samples with  
RP-HPLC**



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**Natural or artificial?**  
– Determination of  
vanillin in vanilla  
products and  
associated marker  
substances

**Increasing  
sensitivity of  
carbohydrate  
analysis by  
switching from  
refractive index to  
electrochemical  
detection**

**Analysis of  
Flavonoid  
Glycosides**



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