



# HIGH SPEED COUNTER CURRENT CHROMATOGRAPHY



# Higher Separation Flow Rate Higher Separation Efficiency

Best choice for purification method exploring in the earlier stage!

EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

# Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net



#### **>>** Specifications

Model	HSCCC 3030A
Total column Volume	30ml
Sample Loop Volume	1ml
Revolution Speed	0-1400rpm
Recommend Working Speed	1300rpm
Flow rate	0.1-10ml/min
Separation Flow rate	0.5-5.0ml/min
Max System Pressure	2MPa
Temperature Range	5-40°C

With the redesingned inner structure and the optimized two -dimensional force field, the performance of HSCCC 3030A is greatly imoroved !

#### **FEATURES**

Shorter separation time : the separation flow rate is increased about one time against HSCCC 3030A and Short-en the separation time.

Higher separation efficiency : Prominently increased against HSCCC 3030A.

Higher ratention rate: based on the same flow rate, the retention rate could be increased more than 50% against HSCCC 3030A

02

Less solvent consumption: one time run only cost less than 100ml solvent.

Microgran sample load: one time separation only need hundreds of micrograms sample.

#### Application Areas

Separation condition research

Purification process optimization

• Fingerprint research

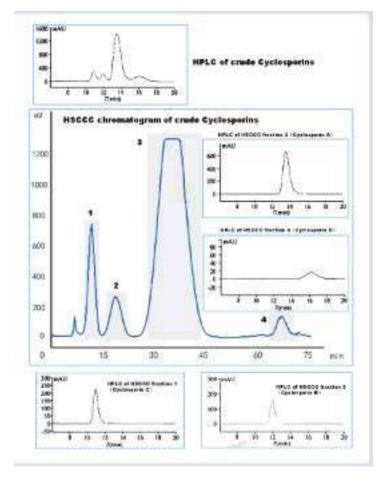
Analysis research



## **>>** Separation of Antibiotics

Sample: Crude cyclosporine Apparatus: HSCCC-3030A HSCCC experimental conditions: Solvent system: light petmleun/aceton&water (3 : 3 : 2, VIV) Stationary phase: upper phase Flowrate: 1.0ml/min Revolution speed: 1300r/min Detection: ELSD Product punty: cyclosporineA 98.6% cyclosporineB 98.7%

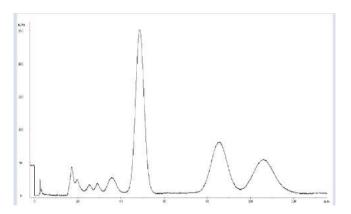
cyclosporineC 99.3% cyclosporineD 98.5%





# **>>** Example: Separation of aloe extracts

Apparatus: Analytical HSCCC-3030A



Solvent system: chlomfom/isobutanol/ methanol/water(4 : 025 : 3 : 2, V/V) Flow rate: 1.0 ml/min Revolution rate: 1300 r/min UV detection wavelength: 254 nm Injected mass: 3 mg Retention rate: 71.8%

04



Altertoxin I, Cyclosporine A, Cyclosporine B, Cyclosporine C,
Cyclosporine D, Cytochalasin N, Erythromycin A, Erythromycin B, Erythromycin C, Isovaleryl spiramycin III
a-Amylase, Cytochrome C, Hemoglobin, Lysozyme, Ovalbumin,
Ovotransferrin, rhCIFN-u
Angelica coumarin, Artemisiae capillaris scoparone,
Cnidiicoumarin, Cortex fraxini coumarin, Costus alctone,
Curdione, Daphnoretin, Dehydro costus alctone, Deoxyschi-
zandrin, Edgeworoside C, Germacrone, Pinoresinol
diglucoside, lsopsoralen, Liriodendrin, Honokiol, Magnolol,
Peucedanum decursivum coumarin, Peucedanum praeruptorum
dunn coumarin, Psoralen, y-Schizadrin, Syringin, Thyme coumarin,
Umbel I ferone
Baicalein, Baicalin, Chrysin, Daidzin, Daidzein, Didymin, Genistin,
Glycitein,
Glycitin, Hyperoside, Isoliquiritigenin, Isorhamnetin, Isovitexin,
Isoorientin,
Kaempferol, Kuyayinone, Liquiritigenin, Nairutin, Quercetin,
Scutellarin,
Trollius ledebouri flavonoid glycosides, Wogonoside
Atractyloside, Atractylenolide III, Bilobalide,
Gentiopicrin, Ginkgolide A,
Ginkgolide B, Ginkgolide C, Ginkgolide J, Harpagoside, Jasminoidin,
Cryptotanshinone, Tanshinone I, Tanshinone IIA,
Androstenedione, p- Ecdysterone, Sitosterol, Spinasterol
Berberine, Camptothecin, Coptisine, Evodiamine, Heteratisine,
Huperzine A, Huperzine B, Matrine, 15-a-Neoline,
I-Tetrahydropalmatine, Oxymatrine, Oxysophocarpine,
Rutacarpine, Palmatine, Verticine, Verticinone,
Barbinervic Acid stereisomer, Gambogic acid stereisomer
Astragaloside, Clinopodiside A, Ginsenoside-Re, Ginsenoside-Rgl ,
Glycyrrhizic acid, Cinnamic acid, 3,4Dihydroxyphenyllactic
Cinnamic acid, 3,4Dihydroxyphenyllactic acid, Eicosanoic acid,
Ferulic acid, Gallic acid, Ginkgolic acid (C13: O),
Ginkgolic acid (C15: 1), Ginkgolic acid (C17: I)
EGCG, Salvianolic acid B, Theaflavin



## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicir	LC Servicing : HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most	
	affordable cost.	
Trainings	:We also take up preventive Maintenace to reduce downtime of HPLC's Trainings.	
AMC's/CMC	:AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-	
	shooting.	
Validations	:Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.	
• • •		

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.

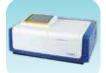




#### **About Analytical Technologies**

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## **Our Products & Technologies**



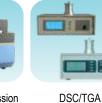




**Optical Emission** Spectrophotometer

Fully Automated

CLIA



NOVA-2100

Chemistry Analyzer



Optima Gas Chromatograph 3007



Semi Auto Bio Chemistry Analyzer



2979 Plus



HEMA 2062 Hematology Analyzer





Atomic Absorption

Spectrophotometer

Urine Analyzer



Liquid Partical Counter



Total Organic Carbon 3800



Water purification system

<b>F</b> -1
H

PCR/Gradient PCR/

RTPCR









TOC

Analyzer

Flash Chromatograph



Micro Plate Reader/Washer



Laser Particle

Ion Chromatograph Size Analyzer





#### **Regulatory compliances**



#### **Corporate Social Responsibility**

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



1.Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personallities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.





#### **Technologies Limited**

#### **HPLC Solutions** Corporate & Regd. Office:

Analytical House, # E67 & E68,

Gujarat 390 015. INDIA

T: +91 265 2253620 Ravi Park, Vasna Road, Baroda,

+91 265 2252839 +91 265 2252370 F: +91 265 2254395

MultipleLabs

#### Analytical Bio-Med **Analytical Distributors**

E: info@hplctechnologies.com

info@analyticalgroup.net

info@analyticalbiomed.com

info@multiplelabs.com

#### **Analytical Foundation (Trust)**

W. www.analvcalgroup.net www.hplctechnologies.com www.multiplelabs.com www.ais-india.com

Sales & Support Offices: across the country : Distributors & Channel partners World Wide