## Applications

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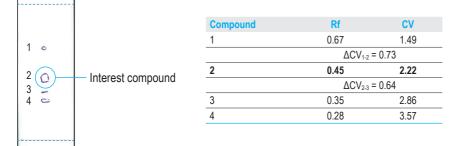
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### **Purification of Phenanthrolines**

#### **TLC** method development

### Mobile phase:

95% CH2Cl2 / MeOH 5%

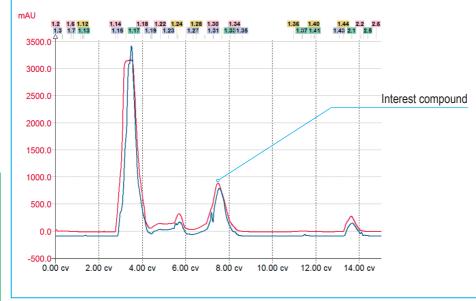


#### Purification

Sample: Crude 450mg Column: PF-15SIHP-F0040 Instrument: puriFlash® 4125 Injection mode: Solid deposit with Celite (Dry-Load F0004) Flow rate: 26mL/min Solvents: A-  $CH_2CI_2$  / B- MeOH Elution conditions:

CV	%A	<b>%B</b>
0.00	99	1
10.72	99	1
19.98	90	10

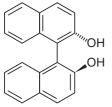
Detection: UV 250nm (blue curve), ELSD (T°: 35°C; Automatic gain) (red curve)







### **Purification of Binol**



### **TLC** method development

#### Mobile phase: Hexane / MTBE



Interest compound

Compound	Rf	CV
1	0.50	2.00
	$\Delta CV_{1-2}$	= 1.33
2	0.30	3.33
	$\Delta CV_{2-3}$	= 6.67
3	0.10	10

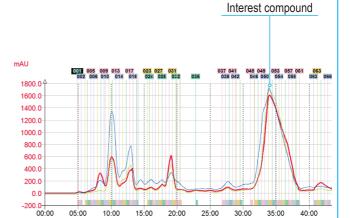
According to  $\Delta CV$  calcultation compound 1 and 2 are criticals to separate. The interest compound is compound 2.

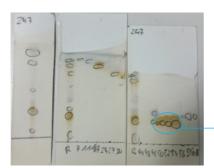
#### Purification -

Sample: Crude 1g Column: PF-30SIHP-F0120 Instrument: puriFlash® 450-iELSD Injection mode: Solid deposit with celite (Dry-load F0012) Flow rate: 46mL/min Solvents: A-Hexane / B-MTBE Elution conditions:

CV	%A	%B
0.00	88	12
1.00	88	12
11.00	25	75
13.50	25	75
14.50	10	90
16.00	10	90

Detection: UV 280nm (green) & 300nm (blue), UV SCAN 250-600nm (red)

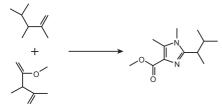




Spoted collection tubes show that the interest compound was pure in tube 50 to 56



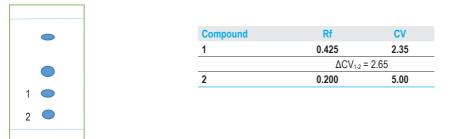
### **Purification of Imidazole**



#### **TLC** method development

#### Mobile phase:

33% Petroleum Ether / Ethyl Ether 67%



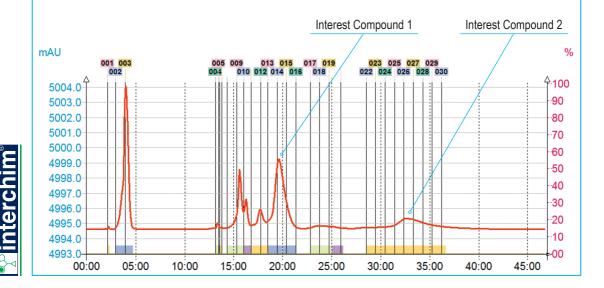
#### Purification

Sample: Crude 700mg Column: PF-15SIHP-F0040 Instrument: puriFlash®-XS 420Plus Injection mode: Liquid injection Flow rate: 26mL/min Solvents: A-Petroleum Ether / B-Ethyl Ether

#### **Elution conditions:**

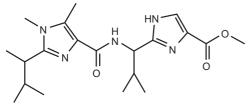
01/	0/ 8	0/ <b>D</b>
CV	%A	%B
0	98	2
1	98	2
11	33	67
13	33	67

Detection: UV 260nm Pressure: 2bar





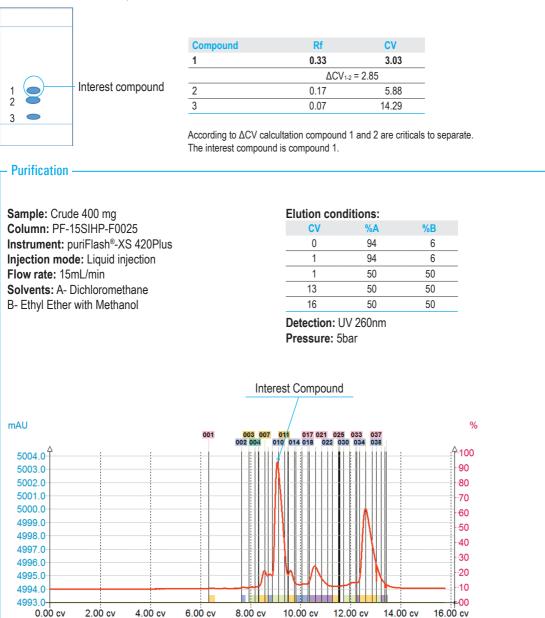
### **Purification of Imidazole**



#### **TLC** method development

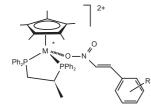
#### Mobile phase:

74% Dichloromethane / Ethyl Ether 24% / Methanol 2%



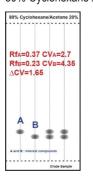
12.00 cv

### **Purification of Organo-Metallic**



**TLC** method development

Mobile phase: 80% Cyclohexane / Acetone 20%



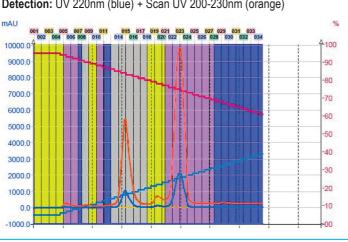
**Purification** 

Sample: Crude 100mg Column: PF-30SIHP-F0025 Instrument: puriFlash® 450 Injection mode: Solid deposit with celite (Dry-load F0004) Flow rate: 20mL/min Solvents: A-Cyclohexane, B-Acetone **Elution conditions:** 

CV	% <b>A</b>	%B
0	95	5
1	95	5
11	60	40
13	60	40

Detection: UV 220nm (blue) + Scan UV 200-230nm (orange)



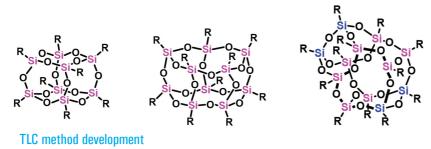


Ethyl acetate is very use in flash purification but this solvent adsorbs from 200 up to 250nm. Compounds absorb at the same wavelength range. Acetone is an alternative to ethyl acetate.

Adaptation of TLC conditions to get at least one interest compound between Rf 0.05 & 0.35



### **Purification of 3 Polyhedral Oligosilsesquixanes**



#### Mobile phase:

70% Hexane/CH<sub>2</sub>Cl<sub>2</sub> 30%



Rf	CV
0.33	3.03
$\Delta CV_{1-2}$	= 0.54
0.28	3.57
ΔCV <sub>2-3</sub>	= 0.60
0.24	4.17
	ΔCV <sub>1-2</sub> 0.28 ΔCV <sub>2-3</sub>

### Purification

Sample: Cruo	de 100mg				E	lution condi	tions:			
Column: PF-	•	0040				CV	%A	%B		
nstrument:	ouriFlash®	450-iELS	D			0	97	3		
njection mo	de: Solid c	deposit wit	th celite		_	1	97	3		
Dry-load F00					_	16	40	60		
low rate: 26	mL/min				_	21	40	60		
Solvents: A-I		-UN2UI2			D	etection: EL		Automatic ga	ain (SAGA)	(
001	005					007	009	010		٨
525.0	1	1	1	1		1 .	1	1		100
450.0						l h				-90
375.0										
300.0										-70
225.0										-60
150.0						H		_		40
75.0							A			-30
0.0	_		_			· · · · · · ·	-1	$\sim$		-20
		i	1	1					1	
-75.0										



### **Purification of 7 Liquid Cristals**

#### **TLC** method development

#### Mobile phase:

90% DCM / MeOH 10% 80% Hex / AcOEt 20%



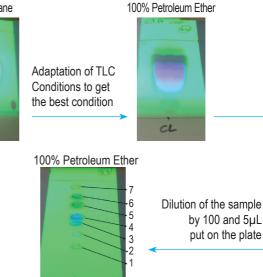




Customer TLC

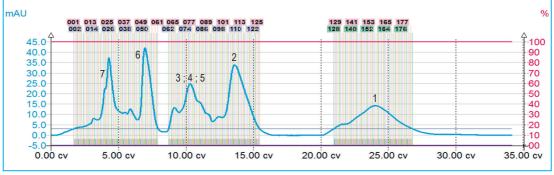
Interchim® development

Compound	Rf	CV	
7	0.938	1.067	
	ΔCV <sub>6-7</sub> =	= 0.123	
6	0.841	1.189	
	ΔCV <sub>5-6</sub> =	= 0.124	
5	0.761	1.313	
	∆CV <sub>4-5</sub> = 0.258		
4	0.636	1.571	
	∆CV <sub>3-4</sub> = 0.171		
3	0.574	1.743	
	ΔCV <sub>2-3</sub> = 0.430		
2	0.460	2.173	
	ΔCV <sub>1-2</sub> =	= 0.810	
1	0.335	2.983	



#### - Purification

Sample: Crude 150mg Column: PF-15SIHP-F0040 Instrument: puriFlash® 430-iELSD Injection mode: Liquid injection Flow rate: 30mL/min Solvent: 100% Petroleum Ether Elution condition: Isocratic Detection: Scan UV 200-600nm







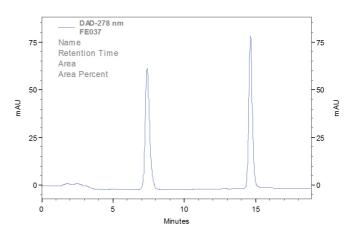
### **Purification of 2 Enantiomers**

R and S

#### **Analytical conditions**

HPLC Column: Chiracel OD-H 250x4.6mm 5µm Injection mode: Liquid injection Injection volume: 10µL Flow rate: 1.0mL/min Solvents: A- Hexane / B- Isopropanol Elution conditions:

t (min)	%A	%B
0	100	0
5	95	5
10	80	20
15	80	20
20	95	5



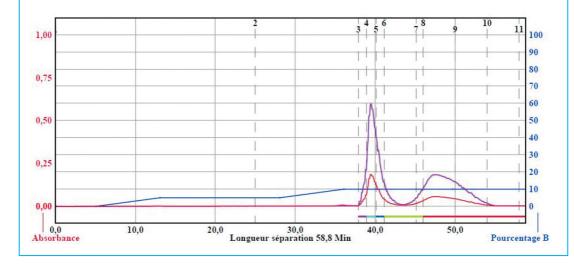
Detection: UV 278nm

#### **Purification** -

Sample: Crude 40mg Column: CT-20OD-I-F0004 Injection mode: Liquid injection Flow rate: 1mL/min Solvents: A- Hexane / B- Isopropanol

Elution conditions:			
%A	%B		
100	0		
100	0		
95	5		
95	5		
90	10		
90	10		
90	10		
	%A   100   100   95   95   90   90		

Pressure: 4bar



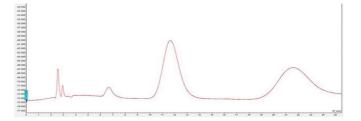




### **Purification of 2 Enantiomers**

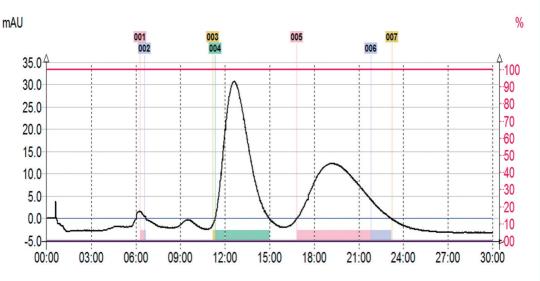
#### **Analytical conditions**

HPLC Column: CHIRALPAK IA 5µm 250X4.6mm Injection mode: Liquid injection Injection volume: 10µL Flow rate: 1mL/min Solvents: 80% Hexane / 20% Isopropanol Elution condition: Isocratic Detection: UV 220nm



#### - Purification -

Sample: Crude 10mg Column: CT-20IA-F0025 Instrument: puriFlash®450 - Integrated ELSD Injection mode: Liquid injection Injection volume: 250µL Flow rate: 5mL/min Solvents: 80% Hexane / 20% Isopropanol Elution condition: Isocratic Detection: UV 220nm Pressure: 2bar



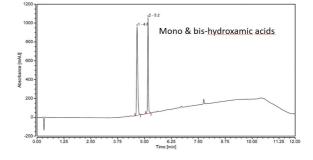




#### **Analytical conditions**

HPLC Column: Kinetex (Core-Shell) C18 50x2.1mm 2.6μm Injection mode: Liquid injection 5μL (concentration: 1mg/mL) Flow rate: 1mL/min Solvents: 80% Hexane / 20% Isopropanol Elution conditions:

t (min)	%A	%B
0	100	0
2	100	0
7	0	100



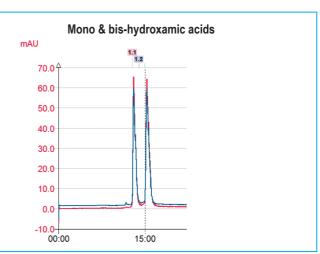
Detection: UV 220nm

#### Purification -

Sample: Crude 0.9mg Column: PF-15C18AQ-F0025 Instrument: puriFlash® XS 420Plus Injection mode: Liquid injection 900µL (concentration: 1mg/mL) Flow rate: 15mL/min Solvents: A- Water / B- ACN Elution conditions:

t (min)	% <b>A</b>	<b>%B</b>
0	100	0
30	50	50
35	50	50

Detection: UV 220nm, Scan UV 210-400nm, ELSD 45°C (red curve)



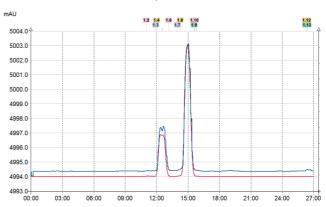
#### Overload

Sample: Crude 45mg Column: PF-15C18AQ-F0025 Instrument: puriFlash® XS 420Plus Injection mode: Liquid injection 2mL Flow rate: 26mL/min Solvents: A-Heptane, B-HTBE Elution conditions:

t (min)	%A	%B
0	100	0
22:08	63	37
27	0	100
27	0	100

Detection: UV 220nm, Scan UV 210-400nm, ELSD 45°C (red curve)

#### Mono & bis-hydroxamic acids





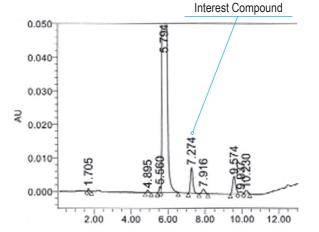
### **Purification of Dioxol**



#### **Analytical conditions**

HPLC Column: C18 250x4,6mm 5µm Injection mode: Liquid injection Injection volume: 10µL Flow rate: 1.0mL/min Solvents: A-Water, B-Acetonitrile Elution conditions:

t (min)	%A	%B
0	50	50
8	50	50
11	20	80
17	20	80
20	50	50
30	50	50



Detection: UV 210nm

#### - Purification

Column: PF-15C18HP-F0040 Instrument: puriFlash® 450 Injection mode: Liquid injection Injection volume: 215µL Flow rate: 35mL/min Solvents: A-Water, B-Acetonitrile

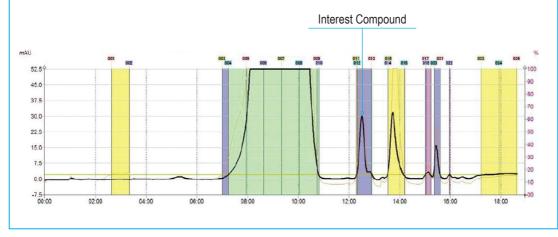
#### **Elution conditions:** t (min) %A %B 70 0 30 8:12 70 30 13:34 15 85 18.40 15 85

70

23

Detections: UV 210nm, Scan UV 210-600nm Pressure: 11bar

30



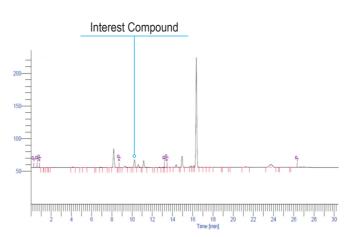


## **Purification of Pharmaceutical**

#### **Analytical conditions**

HPLC Column: Uptisphere<sup>®</sup> Strategy™ C18 HQ 100x4.6mm 5µm Injection mode: Liquid injection Injection volume: 10µl - 0.03mg of product Flow rate: 2mL/min Solvents: A- Water / B- ACN Elution conditions: t (min) %A %B

• ()	/0/ 0	700
0	50	50
3	50	50
15	0	100
25	0	100
27	50	50
35	50	50

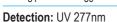


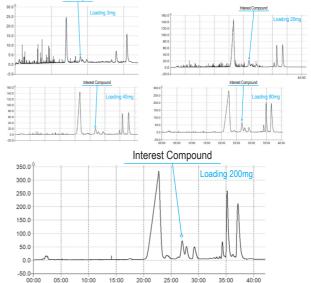
Detection: UV 277nm

#### - Purification

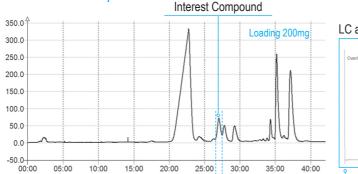
Sample: Crude 3mg up to 200mg of product Prep Column: Uptisphere® Strategy™ C18 HQ 150x21.2mm 10µm Instrument: puriFlash® 4250 Injection mode: Liquid injection Flow rate: 27mL/min Solvents: A- Water / B- ACN Elution conditions: t (min) %A %B

t (min)	%A	%B
0	50	50
7	50	50
45	0	100
65	0	100
81	50	50

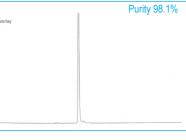




#### **Collection tube analysis**



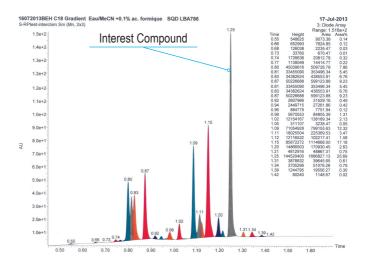
#### LC analysis of the compound of interest:



### **Purification of Pharmaceutical**

#### **Analytical conditions**

HPLC Column: Waters Acquity BEH C18 250x4.6mm 1.7µm Injection mode: Liquid injection Injection volume: 10µl Flow rate: 1mL/min Elution condition: 40%Water/60%Acetonitrile (0.1% Formic acid) Detection: UV 315nm



#### Purification

Sample: Crude 100mg **Elution conditions:** Column: PF-15C18HP-150/212 t (min) %A **%B** Instrument: puriFlash® 4250 0 40 60 Injection mode: Liquid injection 23 40 60 Flow rate: 20mL/min 24 0 100 Solvents: A- Water / B- ACN (0.1% Formic acid) 29 0 100 24 0 100

Detection: UV 315nm Pressure: 7bar Interest Compound 011 010 013 015 017 019 021 009 012 014 016 018 2000.0 <del>4</del>·100 1800.0 .90 1600.0 -80 1400.0 ·70 1200.0 -60 1000.0 -50 800.0 40 600.0 -30 400.0 ·20 200.0 10 0.0 -200.0--00



00:00

03:00

06:00

09:00

12:00

15:00

18:00

21:00

24:00

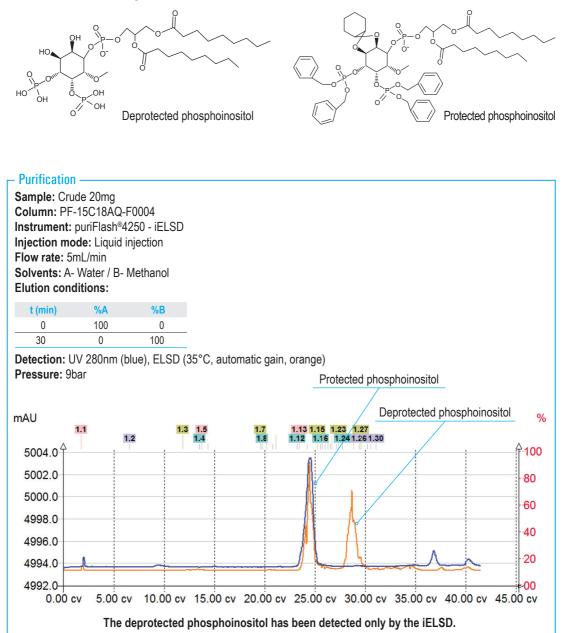
27:00

30:00

33:00

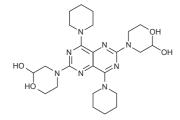


## **Purification of Phosphoinositol**

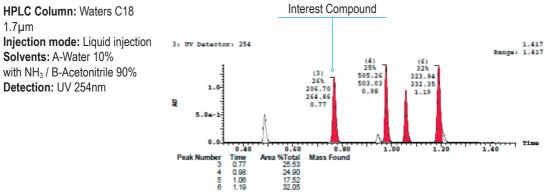




### **Purification of Dipyridamole**



#### **Analytical conditions**

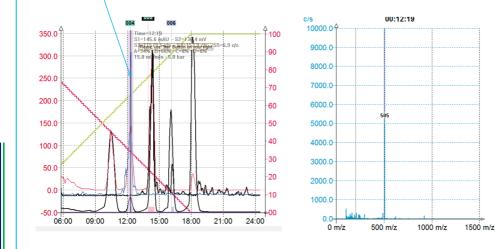


#### Purification

Column: PF-15C18XS-F0025 Instrument: puriFlash® 4250 Injection mode: Liquid injection Injection volume: 1mL Flow rate: 15mL/min

Interest Compound

Solvents: A-Water 10% with NH3 / B-Acetonitrile Detection: UV 254nm (blue), ELSD (35°C, gain 4) (red), MS (APCI): XIC (m/z 505) (black)



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## **Purification of Peptides Mixture**

### Compounds

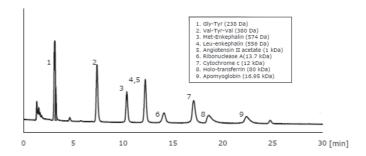
GLY-TYR (MW: 238g.mol<sup>-1</sup>) VAL-TYR-VAL (MW: 380g.mol<sup>-1</sup>) Met-Enkephalin (MW: 574g.mol<sup>-1</sup>) Angiotensin II (MW: 1000g.mol<sup>-1</sup>) Cytochrome C (MW: 11749g.mol<sup>-1</sup>)

### **Analytical conditions**

HPLC Column: PF-15C18N-250/046 Injection mode: Liquid injection Injection volume: 10µL Flow rate: 2mL/min Solvents: A- Water + 0,1% TFA / B-Acetonitrile + 0,1% TFA Elution conditions:

	t (min)	%A	%B
	0	95	5
	30	60	40
_		10/015	

Detection: UV 215nm

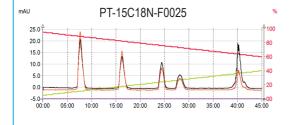


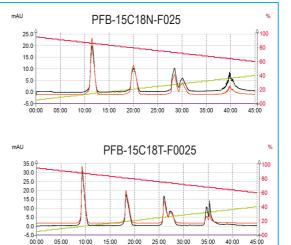
#### Purification

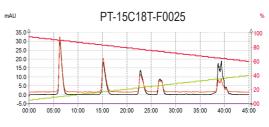
Sample: Crude 1.8mg Column: PFB-15C18N-F0025, PFB-15C18T-F0025, PT-15C18N-F0025, PT-15C18T-F0025 Instrument: puriFlash® XS 420Plus Injection mode: Liquid injection Injection volume:  $150\mu$ L Flow rate: 15mL/min Solvents: A-Water + 0,1% TFA / B- Acetonitrile + 0,1% TFA Elution conditions:

t (min)	%A	%B
0	95	5
45	60	40

Detection: UV 254nm (Black), UV 280 (Orange) Pressure: 7bar







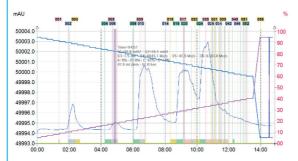


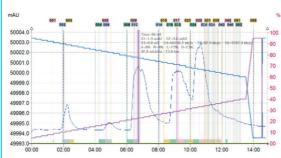


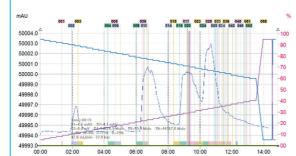
## **Purification of Pyridines**

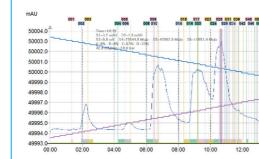
#### - Purification

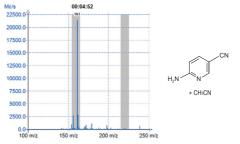
HPLC column: Waters X-bridge 30x100mm 5µm Instrument: puriFlash® 4250-MS Injection mode: Liquid injection Solvents: A- CH<sub>3</sub>CN+NH<sub>4</sub>OH / B-Water Detection: TIC & XIC (m/z 151-153, 158-160, 219-221)

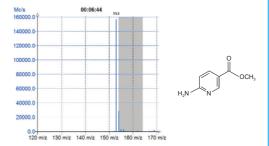


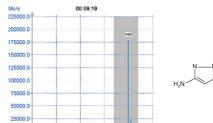




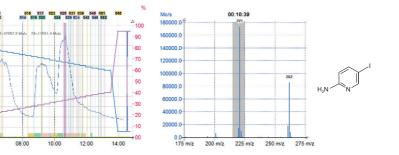








0.0 120 m/z 130 m/z 140 m/z 150 m/z 160 m/z 170 m/z



**F.18** 



### **Method Development & Overload**

#### **TLC** method development

#### Mobile phase:

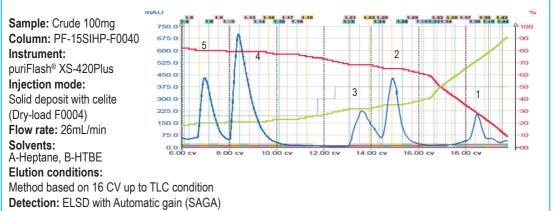
50% HTBE / Heptane 50%



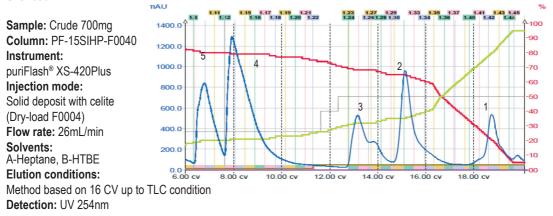
Compound	Rf	CV
1	0.09	11.11
2	0.20	5.00
3	0.33	3.03
4	0.60	1.67
5	0.68	1.47

Critical compounds to separate are 4 and 5  $\Delta$ CV=0.20.

#### Purification



#### **Overload**





## 1- Mass spectrometry guided purification for efficient isolation of natural products at semi-and preparative scale

AAzzollini, EQ Ferreira, N Bohni, D Guillarme... - Planta Medica - thiemeconnect.com

... In particular, a single quadrupole mass spectrometer coupled to a semi-preparative chromatographic system (PuriFlash® – MS) was found a promising tool to increase the efficiency of the isolation of constituents of interest. ...

#### 2- Optimized MS-based isolation strategy for rapid targeted purification of antifungal compounds

AAzzollini, J Zhang, Q Favre-Godal... - Planta Medica - thieme-connect.com ... In particular, a single quadrupole mass spectrometer coupled to a semi-preparative chromatographic system (PuriFlash<sup>®</sup> – MS) was found a promising tool to increase the efficiency of the isolation of constituents of interest...

#### 3- A Comprehensive Review for the Learners and Users: Preparative High Performance Liquid Chromatography

BG Jadhav, AM Jadhav, AR Shirode... - International Journal of ..., 2014 - pmindexing.com

... 3.3 Preparative high pressure liquid chromatography-flash chromatography (PuriFlash®). The commercially available instrument puriFlash® (Interchim laboratory suppliers) combines the simplicity of Flash ... reverse phase in less than 10 seconds. The puriFlash software ...

#### 4- CHIMIA Report/Company News

#### B Easy - chimia.ch

... If you routinely purify more than a couple of grams of compound our PuriFlash<sup>®</sup> development scale cartridges will save you both time and money. ... PuriFlash™ PuriFlash F development flash cartridges are excellent cartridges for use with com- pression module systems. ...

#### 5- An antedrug of the CXCL12 neutraligand blocks experimental allergic asthma without systemic effect in mice

F Daubeuf, M Hachet-Haas, P Gizzi, V Gasparik... - Journal of Biological ..., 2013 - ASBMB

... Thin-layer chromatography was performed on silica gel 60F 254 plates. Flash chromatography was performed on silica gel (puriFlash® 30µm, Interchim®) or C18 (puriFlash® 30µm, Interchim) prepacked columns on a SpotII Ultima from Armen. ...

## 6- Fluorogenic substrates, methods of making the substrates, and methods of detecting glycosidase activities

A Drevelle, S Ladame, M Najah... - US Patent App. 14/ ..., 2014 - Google Patents

... The obtained solid is purified once by reverse phase chromatography on a pre-packed silica column (eluent: pure water, cartridge PURIFLASH® INTERCHROM C18) and then subsequently with a purification apparatus BIOTAGE-ISOLERAONE (eluent: pure water, cartridge ...

#### 7- Sulfonated coumarins, their synthesis, fluorogenic substrates resulting from grafting of these coumarins on sugars, method for obtaining these substrates, and their ...

A Drevelle, S Ladame, M Najah, E Mayot - US Patent 8,716,496, 2014 - Google Patents

... The obtained solid is purified once by reverse phase chromatography on a pre-packed silica column (eluent: pure water, cartridge PURIFLASH<sup>®</sup> INTERCHROM C18) and then subsequently with a purification apparatus BIOTAGE-ISOLERAONE (eluent: pure water, cartridge ...

#### 8- ПЕПТИДНЫЕ ИНГИБИТОРЫ АГРЕГАЦИИ ТРОМБОЦИТОВ

АЮ Лизунов, ЕА Батуев, ЛА Павлова - 2013 - scientific-notes.ru

... препаративного жидкостного хроматографа PuriFlash 450 (InterChim). Условия ВЭЖХ: катридж Interchim PF-C18 (20g), 15 мкм. ... Очистку пептидов осуществляли с помощью высокоэффективного препаративного жидкостного хроматогрофа PuriFlash 450 (InterChim).

# 9- HPLC-based activity profiling for antiplasmodial activity in the traditional Indonesian medicinal plant Carica papaya L.

T Julianti, M De Mieri, S Zimmermann... - Journal of ..., 2014 - Elsevier ... Semipreparative separations of alkaloids 5–8 were carried out with a PuriFlash<sup>®</sup> 4100 system consisting of mixing HPLC pump, UV detector dual length DAD, fraction collector, and a sample loading module (Interchim; Montluçon, French)....

#### 10- Advanced glycation inhibition and protection against endothelial dysfunction induced by coumarins and procyanidins from Mammea neurophylla

BT Dang, C Gény, P Blanchard, C Rouger, P Tonnerre... - Fitoterapia, 2014 - Elsevier

... The samples were adsorbed to silica gel Si60 prior to introduction and a DASi™ sample injection module (Agilent Technologies) was used. For MeOH bark extract, Puriflash® PF-30SiHP/4G cartridges (Interchim, Clichy, France) were used and the flow rate was 5 mL/min [64]. ...

# 11- Development of a simple recycling process for evaporated organic solvent after preparative supercritical fluid chromatography using powdered activated charcoal

SB Thomas, WW Barnhart, HA Eastwood, C Nichols... - RSC Advances, 2014 - pubs.rsc.org

... PA). XBridge™ C-18 (100 × 3.0 mm id, 3.5 µm) and puriFlash® Dry-load empty 200G flash (133 × 60 mm id) columns were purchased from Waters Corporation (Milford, MA) and Interchim (San Pedro, CA), respectively. Hydrophobic ...

#### 12- A selective lead sensor based on a fluorescent molecular probe grafted on a PDMS microfluidic chip

D Faye, JP Lefevre, JA Delaire, I Leray - Journal of Photochemistry and ..., 2012 - Elsevier

... Mass spectra were performed at IMAGIF Institute (Gif sur Yvette, France). Column chromatographies were performed using puriFlash® (Interchim) or Spot 2 Flash System (ARMEN) with prepacked column Sepra Si 50-60 Å. ...

#### 13- Highly Efficient Synthesis of Globular (Bola) amphiphilic [5: 1] Hexakisadducts of C60

F Hörmann, M Brettreich, W Donaubauer... - ... - A European Journal, 2013 - Wiley Online Library

... 254 . Detection: UV lamp or KMnO 4 chamber. Flash chromatography (FC): Interchim puriFlash 430. PuriFlash Column 15 Silica HP-Silica 15 µ (80.0 g). UV/Vis spectroscopy: Varian Cary 5000 UV-Vis-NIR spectrophotometer. ...





#### 14- Efficient Synthesis of C2v-Symmetrical Pentakisadducts of C60 as Versatile Building Blocks for Fullerene Architectures that Involve a Mixed Octahedral Addition ...

F Hörmann, W Donaubauer, F Hampel... - Chemistry-A European ..., 2012 - Wiley Online Library

... 254 . Detection: UV lamp or iodine chamber. Flash chromatography (FC): Interchim puriFlash 430. PuriFlash Column 15 silica HP-silica 15  $\mu$  (80.0 g). UV/Vis spectroscopy: Varian Cary 5000 UV/Vis-NIR spectrophotometer. The ...

#### 15- Giant Fullerene Polyelectrolytes Composed of C60 Building Blocks with an Octahedral Addition Pattern and Discovery of a New Cyclopropanation Reaction Involving ...

F Hörmann, A Hirsch - Chemistry-A European Journal, 2013 - Wiley Online Library

... All analytical reagent-grade solvents were purified by distillation. Thin layer chromatography (TLC): Merck HPTLC silica gel 60 F 254 . Detection: UV lamp or KMnO 4 chamber. Flash chromatography (FC): Interchim puriFlash 430. PuriFlash Column 15 Silica HP-Silica 15 µ. ...

#### 16- Secondary metabolites from aerial parts of Circaea lutetiana L

S Granica, AK Kiss - Biochemical Systematics and Ecology, 2013 - Elsevier ... Fraction Z 10 (534 mg) was subjected to flash chromatography system (PuriFlash 430evo, Interchim, France, C18 column – 15  $\mu$ m, 75 × 30 mm, 20 g, Interchim, France,  $\lambda$  = 254 nm, flow 10 mL/min, mobile phase: 0.1% HCOOH in water (A) and acetonitrile (B); elution program: 0...

#### 17- Coordination controlled atropoisomerism in phenanthroline-strapped porphyrins: A swinging affair

P Vorburger, JA Wytko, J Weiss - Journal of Porphyrins and ..., 2014 - World Scientific

... Column chromatography was performed with alumina or silica gel from Merck (aluminium oxide 60 standardized; silica gel 60, 0.063–0.200 nm). Flash chromatography was performed using Puriflash Minibox with puriflash column 50 silica HP. ...

#### 18- Sequential photo-addition of glycine methyl-ester to [60] fullerene

R Skanji, M Ben Messaouda, Y Zhang, M Abderrabba... - Tetrahedron, 2012 - Elsevier

... The purification of C 60 -GME mono-adduct was performed on a PuriFlash 430 Evo system (Interchim, Montluçon, France) with a 50 STD (200 g) Puriflash column and a mixture of toluene/ acetonitrile (30/70, v/v) as a mobile phase (flow rate 20 mL/min at 20 °C). After discarding ...

#### 19- Comprehensive analysis of Cirsium spinosissimum Scop., a wild alpine food plant

C Abbet, I Slacanin, E Corradi, M De Mieri... - Food chemistry, 2014 - Elsevier ... Preparative HPLC was performed on a PuriFlash® 4100 system (Interchim, Montluçon, France) coupled to an evaporative light scattering detector (ELSD) Series 2000 (Alltech, Deerfield II, USA, nitrogen flow 2.4 I/min, impactor on, 50 °C) via a Quick Split flow splitter (Interchim ...

#### 20- Conjugation of keto fatty acids to glutathione in plant tissues. Characterization and quantification by HPLC-tandem mass spectrometry

C Abbet, I Slacanin, E Corradi, M De Mieri... - Food chemistry, 2014 - Elsevier ... The solution was then loaded onto a C 18 solid-phase extraction column (Puriflash 60 C 18 U40/63, Interchim, Montlucon, France) preconditioned with 20 mM sodium borate at pH 4. The column was washed with water, and the conjugates were eluted with 40 or 60% acetonitrile ...

#### 21- Identification of a New Lactone Contributing to Overripe Orange Aroma in Bordeaux Dessert Wines via Perceptual Interaction Phenomena

P Stamatopoulos, E Frérot, S Tempère... - Journal of agricultural ..., 2014 - ACS Publications

... concentrated. After purification by flash chromatography over silica gel, using a PuriFlash SI Std IR-50SI (50 µm) cartridge from Interchim (Montluçon, France), 2.6g (23%) of 2-nonen-4-olide was obtained (purity > 99%). The ...

#### 22- Antitrypanosomal isoflavan quinones from Abrus precatorius

Y Hata, SN Ebrahimi, M De Mieri, S Zimmermann... - Fitoterapia, 2014 - Elsevier

... Data acquisition and processing were done by using HyStar 3.0 software (Bruker Dattonics). Flash chromatography was carried out with a PuriFlash® 4100 chromatography system (Interchim) controlled by InterSoft V5.0 software. ...

#### 23- Quantitative analysis of phenolic metabolites from different parts of Angelica keiskei by HPLC–ESI MS/MS and their xanthine oxidase inhibition

DW Kim, MJ Curtis-Long, HJ Yuk, Y Wang, YH Song... - Food chemistry, 2014 - Elsevier

... The dried root bark (1.5 kg) of A. keiskei was extracted using methanol (3 × 5 I) at room temperature to give crude extract (43.5 g). Crude extract (8 g) was purified by MPLC (PuriFlash 450, Interchim, France) over reversed phase silica gel (20–40 µm, 250 g) and eluted by using ...

#### 24- Секция № 5 Современные проблемы фармакологии,

клинической фармакологии и фармации

А ДЕЙСТВИЕМ - bakob.ru

... использованием стратегии FastMoc 0.25. Очистку пептидов осуществляли с помощью высокоэффективного препаративного жидкостного хроматографа PuriFlash 450 (InterChim). Строение синтезированных соединений ...

#### 25- ПРОБЛЕМЫ ФАРМАЦИИ И ФАРМАКОЛОГИИ ГЛИКОПРОТЕИНОВЫЕ Gp IIB/IIIA РЕЦЕПТОРЫ ТРОМБОЦИТОВ-ПОТЕНЦИАЛЬНАЯ МИШЕНЬ ДЛЯ ...

#### АА Алексеев, ВЛ Королев, ЛА Павлова - БЮЛЛЕТЕНЬ СЕВЕРНОГО ... - nsmu.ru

... использованием стратегии FastMoc 0.25. Очистку пептидов осуществляли с помощью высокоэффективного препаративного жидкостного хро- матогрофа PuriFlash 450 (InterChim). Структура полученных соединений ...

#### 26- Chemo-enzymatic preparation of new bio-based bis-and trisphenols: new versatile building blocks for polymer chemistry

F Pion, AF Reano, PH Ducrot, F Allais - RSC Advances, 2013 - pubs.rsc.org ... and were used as received. Dichloromethane was distilled under argon over CaH 2 . Compounds were purified on a Puriflash 430 purchased from Interchim, using Si–OH phase columns. Melting points were measured with a Büchi 510. ...

#### 27- A Fluorescence Anisotropy–Based Myt1 Kinase Binding Assay

A Rohe, C Henze, F Erdmann... - Assay and drug ..., 2014 - online.liebertpub. com

... residual solvent signals and reported in ppm ( $\delta$ ). Chromatography was performed on silica gel (Merck silica gel 60, 40–63 mesh) by MPLC (Interchim PuriFlash 430; Montluçon, France). As inprocess control, TLC was carried out ...

## 28- Renewable polymers derived from ferulic acid and biobased diols via ADMET

I Barbara, AL Flourat, F Allais - European Polymer Journal, 2014 - Elsevier ... Evaporations were conducted under reduced pressure at temperature below 40 °C. Column chromatography was carried out with an automated flash chromatography (PuriFlash 4100, Interchim) and pre-packed INTERCHIM PF-30SI-HP (30 µm silica gel) columns. ...

## 29- In vitro digestion of citric acid esters of mono-and diglycerides (CITREM) and CITREM-containing infant formula/emulsions

S Amara, A Patin, F Giuffrida, TJ Wooster... - Food & function, 2014 - pubs. rsc.org

... lipases on these compounds. CITREM (504 mg) was fractionated by column chromatography (SiO 2) with the puriflash system using petroleum benzine and ether (+1% HCO 2 H) as the eluent from 60% to 100%. Fractions 1 to ...

#### 30- Design, Synthesis, and Initial Evaluation of a High Affinity Positron Emission Tomography Probe for Imaging Matrix Metalloproteinases 2 and 9

SV Selivanova, T Stellfeld, TK Heinrich... - Journal of medicinal ..., 2013 - ACS Publications

... The acetonitrile gradient from 5% to 95% over 20 min at 30 mL/min flow rate was applied. Ion exchange was performed on Biotage Isolera using RP-18 PuriFlash 15PT C18T cartridges (Interchim) and the mobile phase as described below (see: Introduction of Counterions). ...

#### 31- Bicyclo-ketones as perfuming ingredients

AA Birkbeck - US Patent 8,445,727, 2013 - Google Patents ... yellow oil. Further purification by chromatography Puriflash cartridge (Si-HP 80G) with cyclohexane:ethyl acetate (99:1) as eluent in which only pure fractions were combined gave the pure ketone 0.7 g as a colorless oil. 13 C ...

#### 32- Bioassay-Guided Chromatographic Isolation and Identification of Antibacterial Compounds from Artemisia annua L. That Inhibit Clostridium perfringens Growth

E Ivarsen, XC Fretté, KB Christensen... - Journal of AOAC ..., 2014 - ingentaconnect.com

... The used chromatographic system was a silica gel normal phase (NP) column (Puriflash, Si-HP, 50 µm, 80 g, Interchim, Montluçon, France). Fractionation of the crude n-hexane and the DCM extracts was performed in duplicate. ...

#### 33- Papain-Like Protease (PLpro) Inhibitory Effects of Cinnamic Amides from Tribulus terrestris Fruits

YH Song, DW Kim, MJ Curtis-Long, HJ Yuk... - Biological and ..., 2014 - jlc. jst.go.jp

... C18) using MPLC (Puriflash 450, Interchim, Montlucon, France) with a linear gradient of 0–90% CH3OH/H2O and a 40 mL/min flow rate to afford seven fractions (A–G). Frac- tions C (1.3 g), E (2.8 g) and F (1.2 g) were grouped together and fractionated via MPLC using a silica ...

#### 34- Chemoenzymatic Total Synthesis of a Naturally Occurring (5-5')/(8'-O-4 ") Dehydrotrimer of Ferulic Acid

LMM Mouterde, AL Flourat... - European Journal of ..., 2013 - Wiley Online Library

... 35 °C unless otherwise noted. Column chromatography (CC) was carried out with an automated flash chromatography PuriFlash system and pre-packed INTERCHIM PF-30SI-HP (30 µm silica gel) columns. 1 H NMR spectra ...

#### 35- Chrolactomycins from the Actinomycete Actinospica

M Iorio, SI Maffioli, E Gaspari, R Rossi... - Journal of natural ..., 2012 - ACS Publications

... The latter (580 mL) was extracted three times with 200 mL of ethyl acetate, and the combined organic phases were dried under reduced pressure and dissolved in 4 mL of 50% dimethylformamide in H 2 O (v/v). The sample was resolved on a 20 g reversed-phase Puriflash ...

#### 36- Microbiologically active Mannich bases derived from 1, 2, 4-triazoles. The effect of C-5 substituent on antibacterial activity

T Plech, M Wujec, M Majewska, U Kosikowska... - Medicinal Chemistry ..., 2013 - Springer

... Elemental analyses were performed on an AMZ 851 CHX analyzer (PG, Gdansk, Poland) and the results were within ±0.2 % of the theoretical value. All the compounds were purified by flash chromatography (PuriFlash 430evo, Interchim, USA). ...

## 37- Conjugates of pyrrolo [1, 4] benzodiazepine dimers as anticancer agents

A Commercon, L Gauzy-Lazo - US Patent 8,481,042, 2013 - Google Patents The present invention relates to pyrrolo[1,4]benzodiazepine (PBD) dimer conjugates, to the compositions comprising them and to their therapeutic application, in particular as anticancer agents. The invention also relates to the process for the preparation of the conjugates, to their

### 38- Novel disubstituted 3, 4-diamino-3-cyclobutene-1, 2-dione

#### compounds for use in the treatment of chemokine-mediated diseases

B Musicki, J Aubert, JG Boiteaux, L Clary... - US Patent App. 14/ ..., 2012 - Google Patents

Disubstituted 3,4-diamino-3-cyclobutene-1,2-dione compounds are described that correspond to general formula (I). Also described, are pharmaceutical compositions that include these compounds and methods of using these compounds and compositions for the treatment of ...

#### 39- Conjugates of Pyrrolo [1, 4] Benzodiazepine Dimers As Anticancer Agents

#### A Commercon, L Gauzy-lazo - US Patent 20,140,155,590, 2014 -

freepatentsonline.com

... 1-yl)propanoylamino]ethoxy)ethoxy)ethoxy)ethoxy)propanoate in 50 µl of DMA are added to 3.3mg of diisopropylethylamine supported on resin (3.72 mmol/g). The mixture obtained is stirred at AT for 24 h and then filtered through silica (Interchrom Puriflash Silica 15/35U 2G ...

## 40- Studies on the synthesis and antibacterial activity of 3, 6-disubstituted 1, 2, 4-triazolo [3, 4- b] 1, 3, 4-thiadiazoles

T Plech, M Wujec, U Kosikowska, A Malm... - European journal of ..., 2012 - Elsevier

... value. All the compounds were purified by flash chromatography (PuriFlash 430evo, Interchim, USA). 4.1.2. General procedure for the synthesis of 4-amino-5-substituted-2,4-dihydro-3H-1,2,4-triazole-3-thiones (A–D). Solid potassium ...

#### 41- [C@ c02536

#### ST Fang, X Liu, NN Kong, SJ Li

... Ltd, Yantai, China), and spots were visualised by spraying with 10% H2SO4 in EtOH followed by heating. Fractions were separated by preparative medium pressure liquid chromatography (MPLC) (Puriflash 450, Interchim Natural Product Research 1967 ...





#### 42- [C@ 175eb10

ST Fang, X Liu, NN Kong, SJ Liu, CH Xia - 2013 - ir.yic.ac.cn ... Ltd, Yantai, China), and spots were visualised by spraying with 10% H2SO4 in EtOH followed by heating. Fractions were separated by preparative medium pressure liquid chromatography (MPLC) (Puriflash 450, Interchim Natural Product Research 1967 ...

#### 43- Trophic importance of diatoms in an intertidal Zostera noltii seagrass bed: Evidence from stable isotope and fatty acid analyses

B Lebreton, P Richard, R Galois, G Radenac... - Estuarine, Coastal and ..., 2011 - Elsevier

... v). FAME purification was done in two steps. First, a Flash-LC was carried out on the HPLC fitted with a semi-preparative column (100 mm length × 10 mm ID) filled with a Puriflash Si-CN 60 µm phase (Interchim, France). A polarity ...

#### 44- Antifungal ether diglycosides from Matayba guianensis Aublet

PA de Assis, PNET Theodoro, JE de Paula... - Bioorganic & medicinal .... 2014 - Elsevier

... Fractions 167-174 (502.9 mg) were pooled and chromatographed on MPLC column (Interchim PuriFlash™ 25 g-22 bars P/N: IR 50 SI/25 g Upti-prep sílica technology™ 50 µm), eluted by a gradient of increasing polarity of MeOH in CH 2 Cl 2 at a flux of 15 mL/min to furnish ...

#### 45- Sequential Fullerenvlation of BisImalonates-Efficient Access to **Oligoclusters with Different Fullerene Building Blocks**

LK Wasserthal, A Kratzer... - European Journal of .... 2013 - Wilev Online Library

... TLC: Merck TLC silica gel 60 F 254, KMnO 4 (1 % solution in 1 % aqueous KOH) was used to develop the plates. Flash chromatography: Interchim puriFlash 430 instrument, SIHC-JP 15 µm 40 g column, substances purified portionwise. ...

#### 46- Two new flavonoid glycosides from the halophyte Limonium franchetii

NN Kong, ST Fang, JH Wang, ZH Wang... - Journal of Asian natural ..., 2014 - Taylor & Francis

... heating. Fractions were separated by preparative MPLC (Puriflash 450, Interchim Company, Montlucon, France) on the flash chromatographic columns (Santai Technologies, Inc., Changzhou, China). 3.2 Plant material. The ...

#### 47- Two new withanolides from the halophyte Datura stramonium L.

ST Fang, X Liu, NN Kong, SJ Liu... - Natural product research, 2013 - Taylor & Francis

... Fractions were separated by preparative medium pressure liquid chromatography (MPLC) (Puriflash 450, Interchim Company, France) on the flash chromatographic columns (Santai Technologies, Inc., Changzhou, China), Plant material, ...

#### 48- N-t-butanesulfinyl amide: An optimised and versatile access from readily available starting materials

A Honraedt, G Caillot, E Gras - Comptes Rendus Chimie, 2013 - Elsevier ... The reactions were monitored by TLC using commercially available glass-backed plates, precoated with a 0.25 mm layer of silica containing a fluorescent indicator. Flash chromatography was carried out on Interchim Puriflash 430 using Interchim prepacked column (30 µ). ...

#### 49- Synthèse et fonctionnalisation d'aldéhydes issus de la coupure d'esters gras insaturés.

#### KDEOVL VIVIER, Y POUILLOUX - theses.univ-poitiers.fr

Page 1. THÈSE Pour l'obtention du grade de DOCTEUR DE L'UNIVERSITÉ DE POITIERS UFR des sciences fondamentales et appliquées Institut de chimie des milieux et matériaux de Poitiers -IC2MP (Diplôme National - Arrêté du 7 août 2006) ...

#### 50- Photoinitiated Glycosylation at 350 nm

I Cumpstey, D Crich - Journal of Carbohydrate Chemistry, 2011 - Taylor & Francis

... silica. Plates were visualized with UV light and developed using 10% sulfuric acid. Flash column chromatography was carried out on prepacked silica columns (Chromabond, RediSep, PuriFlash, or SuperFlash). Photochemical ...

#### 51- Supplemental Material to: Ece Cazibe Gaffarogullari, André Krause, Jessica Balbo

#### DP Herten, A Jäschke - landesbioscience.com

... was performed using self-packed columns of silica gel (60 Å pore size, 130-270 mesh) or on pre-packed cartridges (puriFlash Silica High Capacity 50 µm, Interchim or TELOS Silica flash chromatography columns) on an IntelliFlash 310 chromatography system (Varian). ...

#### 52- Exploration of pipecolate sulfonamides as binders of the FK506binding proteins 51 and 52

R Gopalakrishnan, C Kozany, Y Wang... - Journal of medicinal ..., 2012 - ACS Publications

... Chromatographic separations were performed either by manual flash chromatography or by automated flash chromatography using an Interchim-Puriflash 430 with a UV detector. Extracts were dried over O 4, and the solvents were removed under reduced pressure. ...

#### 53- Evaluation of synthetic FK506 analogues as ligands for the FK506binding proteins 51 and 52

#### R Gopalakrishnan, C Kozany, S Gaali... - Journal of medicinal ..., 2012 - ACS Publications

... Experimental Section. Chemistry Chromatographic separations were performed either by manual flash chromatography or by automated flash chromatography using an Interchim Puriflash 430 with an UV detector. Organic phases ...

#### 54- Phytochemistry Letters

Y Hata, M De Mieri, SN Ebrahimi, T Mokoka, G Fouche... - 2014 - Elsevier ... He was used as a carrier gas. Flash chromatography was carried out on a chromatography system PuriFlash® 4100 (Interchim), controlled with InterSoft V5.0 software. Semi-preparative HPLC was per- formed on an Agilent 1100 series instrument equipped with a PDA Fig. ....

#### 55- Improved Synthesis of Cyclic Tertiary Allylic Alcohols by Asymmetric 1, 2-Addition of AIMe3 to Enones

#### KDEOVL VIVIER, Y POUILLOUX - theses.univ-poitiers.fr

... 0.04-0.063 mm). TLC analysis was carried out on precoated sheets (Merck DC Kieselgel 60 F254). Medium-pressure liquid chromatography (MPLC) was carried out on Interchim puriFlash SI-HP columns. Solvents used for ...



#### 56- Probing the target-specific inhibition of sensitized protein tyrosine phosphatases with biarsenical probes

A Pomorski, J Adamczyk, A Bishop... - Organic & Biomolecular ..., 2014 - pubs.rsc.org

... Page 14. 13 atoms with 1,2-ethanedithiol (EDT). Biarsenical probes were purified by FLASH chromatography using a gradient of ethyl acetate or methanol in toluene (Gilson PLC 2020 using Interchim PuriFlash SIHP 30 µm, 20 g column, see ESI† for details). Fractions with at ...

#### 57- Identification of two new phenathrenones and a saponin as antiprotozoal constituents of Drypetes gerrardii

Y Hata, M De Mieri, SN Ebrahimi, T Mokoka... - Phytochemistry ..., 2014 - Elsevier

... He was used as a carrier gas. Flash chromatography was carried out on a chromatography system PuriFlash® 4100 (Interchim), controlled with InterSoft V5.0 software. Semi-preparative HPLC was performed on an Agilent 1100 series instrument equipped with a PDA detector. ...

## 58- Metabolism of a novel skepinone I-like p38 mitogen-activated protein kinase inhibitor

K Storch, M Gehringer, B Baur, SA Laufer - MedChemComm, 2014 - pubs. rsc.org

... resonance. Flash chromatography was performed using an Interchim PuriFlash 430 automated flash chromatography system with self-packed columns containing Davisil LC60A 20-45 micron silica from Grace Davison. The ..

## 59- Identification and Quantitation of New Glutamic Acid Derivatives in Soy Sauce by UPLC/MS/MS

E Frerot, T Chen - Chemistry & biodiversity, 2013 - Wiley Online Library ... yellow viscous oil. Flash chromatography over silica gel (SiO2; Puriflash, 300 g; Interchim, F-Montluçon) was performed with cyclohexane/AcOEt and gave pure Z-pGlu-Glu(OBzl)- OBzl as a white solid (3.63 g, 63%). Step 2 (hydrogenolysis ...

#### 60- Synthesis of Precursors for Large Diameter Hemispherical Buckybowls and Precursors for Short Carbon Nanotubes

A Mueller, KY Amsharov - European Journal of Organic ..., 2012 - Wiley Online Library

... diameter 60 Å, Fluka). Flash chromatography was either carried out by using Kieselgel 60 (0.06–0.2 mm, Roth) or with the automated flash chromatography system PuriFlash 430 evo (Interchim). HPLC measurements were carried ...

#### 61- Design, Synthesis and Biological Evaluation of 4 Amino N (4 aminophenyl) benzamide Analogues of Quinoline Based SGI 1027 as Inhibitors of DNA Methylation

E Rilova, A Erdmann, C Gros, V Masson... - ..., 2014 - Wiley Online Library Skip to Main Content. Wiley Online Library. Log in / Register. Log In E-Mail Address Password Forgotten Password? Remember Me. ...

#### 62- Disubstituted 3, 4-Diamino-3-Cyclobutene-1, 2-Dione compounds for use in the treatment of chemokine-mediated pathologies

B Musicki, J Aubert, J Boiteaux, L Clary... - US Patent ..., 2014 freepatentsonline.com Login Sign up....

## 63- Antiproliferative activity of Cyanophora paradoxa pigments in melanoma, breast and lung cancer cells

PH Baudelet, AL Gagez, JB Bérard, C Juin, N Bridiau... - Marine drugs, 2013 - mdpi.com

The glaucophyte Cyanophora paradoxa (Cp) was chemically investigated to identify pigments efficiently inhibiting malignant melanoma, mammary carcinoma and lung adenocarcinoma cells growth. Cp water and ethanol extracts significantly inhibited the growth of the three cancer ...

## 64- Increasing the efficiency of ligands for FK506-binding protein 51 by conformational control.

Y Wang, A Kirschner, AK Fabian... - Journal of medicinal ..., 2013 - ACS Publications

## 65- Synthesis and Characterization of New Ferrocene Containing Ionic Liquids

B Gharib, A Hirsch - European Journal of Organic Chemistry, 2014 - Wiley Online Library

... detection with UV lamp). Flash chromatography was carried out with a Biotage Isolera Prime instrument. PuriFlash columns silica HP-silica 30 (25 g) from Interchim were used for purification. Unless otherwise noted, all iodide ...

#### 66- Substituted 5-aminopyrazoles and use thereof

B Albrecht-Küpper, L Bärfacker... - US Patent App. 12/ ..., 2009 - Google Patents

The present application relates to novel substituted 5-aminopyrazoles, methods of production thereof, use thereof alone or in combinations for the treatment and/or prophylaxis of diseases and use thereof for the production of medicinal products for the treatment and/or prophylaxis ...

## 67- Novel compound useful for the treatment of degenerative and

#### inflammatory diseases

CJM Menet - US Patent App. 14/154,245, 2014 - Google Patents Anovel compound according to Formula I, able to inhibit JAK as disclosed, this compound may be prepared as a pharmaceutical composition, and may be used for the prevention and treatment of a variety of conditions in mammals including humans, including by way of non-limiting ...

## 68- Use of lipases for the kinetic resolution of lactic acid esters in heptane or in a solvent free system

G Richard, K Nott, F Nicks, M Paquot, C Blecker... - Journal of Molecular ..., 2013 - Elsevier

Kinetic resolution of d,I-ethyl lactate (d,I-LA-Et) and d,I-butyl lactate (d,I-LA-Bu) was accomplished in the presence of lipases. Transesterification of the la.

#### 69- Progettazione e sintesi di ligandi sigma selettivi

#### P Blanco - 2014 - archivia.unict.it

Page 1. UNIVERSITA' DEGLI STUDI DI CATANIA DIPARTIMENTO DI SCIENZE DEL FARMACO DOTTORATO INTERNAZIONALE IN SCIENZE FARMACEUTICHE XVI CICLO TESI DI DOTTORATO Dr.ssa Palma Blanco TITOLO Progettazione e sintesi di ligandi sigma selettivi ...

## 70- Chromophores carbo-benzéniques quadripolaires: cibles, synthèses, et propriétés

#### L Leroyer - 2010 - thesesups.ups-tlse.fr

Page 1. THÈSE En vue de l'obtention du DOCTORAT DE L'UNIVERSITÉ DE TOULOUSE Délivré par l'Université Toulouse III - Paul Sabatier Discipline ou spécialité : Chimie Moléculaire Présentée et soutenue par Léo LEROYER Le 19 mars 2010 ...





#### 71- DOCTORAT DE L'UNIVERSITÉ DE TOULOUS

HOU Xue Long - 2010 - core.kmi.open.ac.uk

Page 1. THÈSE En vue de l'obtention du DOCTORAT DE L'UNIVERSITÉ DE TOULOUSE Délivré par l'Université Toulouse III - Paul Sabatier Discipline ou spécialité : Chimie Moléculaire Présentée et soutenue par Léo LEROYER Le 19 mars 2010 ...

#### 72- THERAPEUTIC USE

C MITTEL, DIENT ENTHALTEN, UND IHRE... - patentimages.storage. googleapis....

Page 1. Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. ...

#### 73- Chromatography Columns

J Anderson, K Chodavarapu, L Goldsmith... - US Patent App. 13/ ..., 2009 -Google Patents

... For example, the column may be used in most flash systems, such as the flash REVELERIS™ system (available from Grace Davison Discovery Sciences), Teledyne Isco CombiFlash® & RF, Biotage Isolera, Analogix SimpliFlash, Interchim PuriFlash 430, or the like. EXAMPLES ...

#### 74- Substituted thieno [2, 3-c] pyrazoles and their use as medicinal products

A Bigot, F Clerc, G Doerflinger, S Mignani... - US Patent App. 10/ ..., 2004 -Google Patents

... The residue thus obtained is purified by flash chromatography on a Puriflash cartridge containing 40 g of SiO 2 (20 µm, spherical), elution being carried out with a cyclohexane/EtOAc mixture (75/25 by volume) at a flow rate of 10 ml/min. ...

#### 75- Cytotoxic agents comprising new tomaymycin derivatives

H Bouchard, RVJ Chari, A Commercon... - US Patent ..., 2012 - Google Patents

The present invention is related to new tomaymycin derivatives, their process of preparation and their therapeutic uses

#### 76- Tetra-substituted pyridinylimidazoles as dual inhibitors of p38α mitogen-activated protein kinase and c-Jun N-terminal kinase 3 for potential treatment of ...

F Muth. M Guenther, SM Bauer, P Koch... - Journal of Medicinal ..., 2014 -ACS Publications

Page 1. 1 Tetra-substituted pyridinylimidazoles as dual inhibitors of p38a mitogen-activated protein kinase and c-Jun N-terminal kinase 3 for potential treatment of neurodegenerative diseases. Felix Muth, † Marcel Günther, † Silke ...

#### 77- 2-substituted vs 4-substituted-9, 9'-spirobifluorene host materials for green and blue phosphorescent OLEDs: A Structure-Property **Relationship Study**

S Thiery, C Declairieux, D Tondelier, G Seo, B Geffroy... - Tetrahedron, 2014 - Elsevier

We report a structure-property relationship study of four 9.9'-spirobifluorene (SBF) derivatives (4-5Pm-SBF, 2-5Pm-SBF, 4-Ph-SBF and 2-Ph-SBF), substituted with,

#### 78- Substituted indolo [2, 3-a] quinolizines

H Waldmann, K Kumar, K Hübel, V Pries... - US Patent App. 13/ ..., 2012 -Google Patents

The present invention relates to novel substituted indolo[2,3-a]quinolizines and stereoisomeric forms thereof and/or pharmaceutically acceptable salts of these compounds as well as pharmaceutical compositions containing at least one of these substituted indolo[2,3-a]quinolizines

#### 79- Azaindole inhibitors of aurora kinases

D Dhanak, KA Newlander - US Patent 7,605,266, 2009 - Google Patents The present invention relates to a compound represented by Formula (I): and pharmaceutically acceptable salts. Compounds of the present invention inhibit Aurora kinase, making them especially suitable for the treatment of a number of diseases, including solid tumor cancers and ...

#### 80- Design and synthesis of ligands for the FK506-binding proteins and the serotonin transporter

#### G Ranganath - 2012 - edoc.ub.uni-muenchen.de

Page 1. Dissertation zur Erlangung des Doktorgrades der Fakultät für Chemie und Pharmazie der Ludwig-Maximilians-Universität München Design and Synthesis of Ligands for the FK506- Binding Proteins and the Serotonin Transporter Ranganath Gopalakrishnan aus ...

#### 81- Pyrazolo [1, 5-a] pyridine-3-carboxylic acids as EphB and VEGFR2 kinase inhibitors

P Furet, P Holzer, P Imbach - US Patent 7,795,273, 2010 - Google Patents The invention relates to novel pyrazolo[1,5-a]pyridine-3-carboxylic acid compounds of the formula in which all of the variables are as defined in the specification, in free form or in salt form, to theirpreparation, to their use as medicaments and to medicaments comprising them.

#### 82- Pyrimidinyl-Pyrazole Inhibitors of Aurora Kinases

JL Adams, TH Faitg, JM Ralph... - US Patent App. 12/064,820, 2006 - Google Patents

The present invention provides a compound represented by Formula (I): or a salt thereof, or a solvate thereof, or a combination thereof, wherein the substituents are as defined herein. The present invention also relates to a composition comprising the compound of formula (I) and ...

#### 83-As01 As02

B Part - Chimia. 2013 - isic3.epfl.ch

Page 1. 462 Chimia 2013, 67, Nr. 7/8 ANALYTICAL SCIENCES doi:10.2533/chimia.2013.462 Chimia 67 (2013) 462-475 Chiweizerische Chemische Gesellschaft Analytical Sciences ESTASI Elena Tobolkina, Natalia Gasilova, Liang Qiao, Qiuliyang Yu, Hubert H. Girault ...

#### 84- СИНТЕЗ И ИССЛЕДОВАНИЯ БИОЛОГИЧЕСКОЙ АКТИВНОСТИ НОВЫХ ПОТЕНЦИАЛЬНЫХ БЛОКАТОРОВ РЕЦЕПТОРА NR3C4

#### МИ Брылев - mma.ru

Раде 1. ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ ПЕРВЫЙ МОСКОВСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ имени И.М. Сеченова ...

#### 85- Design and synthesis of new vinca alkaloid derivatives as potential sigma-2 receptor ligands

#### A Grillo - 2011 - archivia.unict.it

Page 1. University of Catania faculty of pharmacy department of pharmaceutical sciences international doctorate in pharmaceutical sciences XXIII Cycle Semmelweis University - Budapest



#### 86-Atividade antifúngica de extratos depositados no banco de extratos de plantas do Bioma Cerrado e de substâncis isoladas de Matayba Guianensis

PAAssis - 2014 - repositorio.unb.br

Page 1. POLYANA ARAÙJO DE ASSIS ATIVIDADE ANTIFÚNGICA DE EXTRATOS DEPOSITADOS NO BANCO DE EXTRATOS DE PLANTAS DO BIOMA CERRADO E DE SUBSTÂNCIAS ISOLADAS DE MATAYBA GUIANENSIS BRASÍLIA, 2013 Page 2....

#### 87- Hydroxymethylaryl-substituted pyrrolotriazines as alk1 inhibitors

J Klar, V Vöhringer, J Telser, M Lobell... - US Patent App. 14/ ..., 2012 - Google Patents

This invention relates to novel 5-{(hydroxymethyl)aryl-substituted pyrrolo[2,1-f][1,2,4]triazin-4arnines of formula (I), to processes for the preparation of such compounds, to pharmaceutical compositions containing such compounds, and to the use of such compounds or compositions ...

#### 88- Azaindole inhibitors of aurora kinases

MA Sarpong, ND Adams, JM Axten... - US Patent ..., 2009 - Google Patents The present invention relates to a compound represented by Formula (I): and pharmaceutically acceptable salts. Compounds of the present invention inhibit Aurora kinase, making them especially suitable for the treatment of a number of diseases, including solid tumor cancers and ...

#### 89- Catalyseurs greffés sur support et libérés sous stimulus externe

#### G Gogolieva - 2014 - oatao.univ-toulouse.fr

Page 1. En vue de l'obtention du DOCTORAT DE L'UNIVERSITÉ DE TOULOUSE Délivré par : Institut National Polytechnique de Toulouse (INP Toulouse) Discipline ou spécialité : Chimie Organométallique et de Coordination Présentée et soutenue par : ...

#### 90- Therapeutic use of of acyglycerols and the nitrogen-and sulphurcontaining analogues thereof

K Caumont-Bertrand, R Darteil... - US Patent App. 10/540,482, 2004 - Google Patents

The invention relates to the use of acylglycerols and the nitrogen- and sulfur-containing analogues thereof in therapy, particularly for the treatment of cerebral ischemia. The invention further relates to methods for preparing said derivatives, novel compounds, in particular acylglycerols ...

#### 91- Anticancer derivatives, preparation thereof and therapeutic use thereof

A Commercon, L Gauzy-Lazo... - US Patent App. 13/750,691, 2013 - Google Patents

Provided herein are compounds of formula (I):

#### 92- Substituted phenylimidazopyrazoles and their use

F Süssmeier, M Lobell, S Grünewald... - US Patent App. 13/ ..., 2013 -Google Patents

The present application relates to novel 1-phenyl-1H-inidazo[1,2-b]pyrazole derivatives, to processes for their preparation, to their use for the treatment and/or prevention of diseases and to their use for preparing medicaments for the treatment and/or prevention of diseases, in particular

#### 93-1, 2-bis-sulfonamide derivatives as chemokine receptor modulators H Yuan, RL Beard, ME Garst, X Liu, JE Donello... - US Patent ..., 2014 -Google Patents

The present invention relates to novel bis-sulfonamide derivatives, processes for preparing them, pharmaceutical compositions containing them and their use as pharmaceuticals as modulators of chemokine receptors.

#### 94- Bicyclic Aryl and Heteroaryl Sodium Channel Inhibitors

C Boezio, H Bregman, JR Coats... - US Patent App. 13/ ..., 2012 - Google Patents

The present invention provides compounds of Formula I, or pharmaceutically acceptable salts thereof, that are inhibitors of voltage-gated sodium channels, in particular Nav 1.7. The compounds are useful for the treatment of diseases treatable by inhibition of sodium channels such ...

#### 95- Therapeutic use of acyl glycerols and the nitrogen-and sulphurcontaining analogues thereof

K Caumont-Bertrand, R Darteil... - US Patent App. 10/542,512, 2004 - Google Patents

The invention relates to the use of acyl glycerols and the nitrogen- and sulfur-containing analogues thereof in the therapeutic field, particularly in human health. The inventive compounds have advantageous pharmacological properties and are particularly of use for the prevention ...

## 96- Novel 1, 2-bis-sulfonamide derivatives as chemokine receptor modulators

## H Yuan, RL Beard, X Liu, JE Donello... - US Patent App. 14/ ..., 2014 - Google Patents

The invention relates to the use of acyl glycerols and the nitrogen- and sulfur-containing analogues thereof in the therapeutic field, particularly in human health. The inventive compounds have advantageous pharmacological properties and are particularly of use for the prevention ...

#### 97- Pyrazolyl-Based Carboxamides II

S Nordhoff, S Wachten, A Kless, F Voss... - US Patent App. 14/ ..., 2014 - Google Patents

The invention relates to pyrazolyl-based carboxamide compounds useful as ICRAC inhibitors, to pharmaceutical compositions containing these compounds and to these compounds for the use in the treatment and/or prophylaxis of diseases and/or disorders, in particular inflammatory ...

#### 98- Pyrazolyl-Based Carboxamides I

S Nordhoff, S Wachten, A Kless, F Voss... - US Patent App. 14/ ..., 2014 - Google Patents

The invention relates to pyrazolyl-based carboxamide compounds useful as ICRAC inhibitors, to pharmaceutical compositions containing these compounds and to these compounds for the use in the treatment and/or prophylaxis of diseases and/or disorders, in particular inflammatory ...

#### 99- Spiro-Amino-Imidazolone and Spiro-Amino-Dihydro-Pyrimidinone Compounds as Beta-Secretase Modulators and Methods of Use

## AE Minatti, O Epstein, R White, M Weiss... - US Patent App. 13/ ..., 2011 - Google Patents

The present invention provides a new class of compounds useful for the modulation of betasecretase enzyme (BACE) activity. The compounds have a general Formula (I), wherein variables A1, A3, A4, A5, A6, A8, L, R2, R7, R9, W and Y of Formula (I) are defined herein. The ...

