SIELC Technologies, Inc
Wheeling, IL 60090 USA
P. 847-229-2629 F. 847-655-6079
mail@sielc.com www.sielc.com

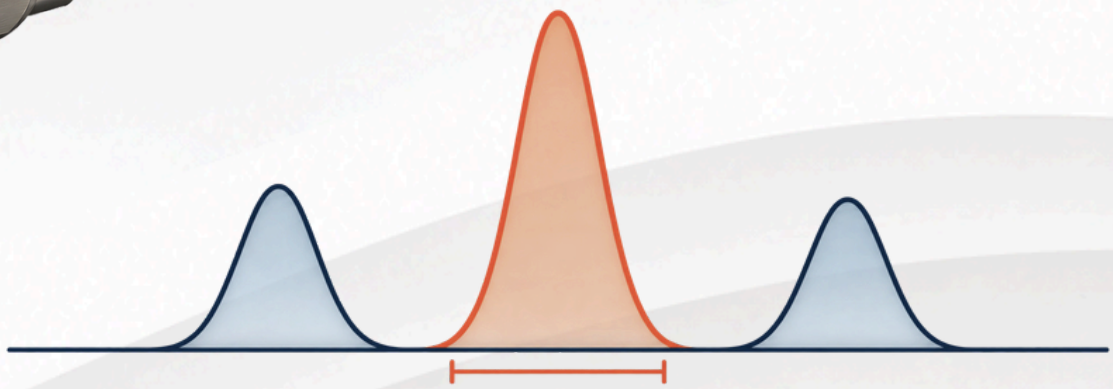
SIELC

Preparative HPLC Columns

Purification service.

Customer phases packing.

Preparative column production.



Target Compound Isolation

HIGH LOADING CAPACITY | SELECTIVE PURIFICATION | RELIABLE SCALE-UP

Built for preparative separation

Proprietary stationary phases. In-house manufacturing. Analytical-to-preparative continuity.

- Reversed-Phase
- Normal-Phase
- Mixed-Mode
- Ion-Exchange, BIST
- HILIC
- Chiral

A broad selection of column chemistries

SIELC preparative columns support research purification and pharmaceutical development. Reversed-phase, normal-phase, HILIC, chiral, and mixed-mode options address diverse separation challenges, including closely related impurities and isomers.

Manufactured and tested in-house

SIELC's proprietary stationary phases are bonded at our facility, allowing close monitoring of batch quality. All columns are manufactured in-house, tested, and supplied with an original test chromatogram documenting performance against specifications.

From analytical to preparative

Analytical methods can be transferred to preparative columns packed with the same stationary-phase chemistry. Separation conditions and sample loading are optimized, followed by fraction concentration and analytical purity assessment.

Up to 50 mm ID
Preparative column dimensions

Up 250 mm long
sielc.com/products/columns

Your phase. Our packing expertise.

Column packing with customer-supplied stationary phases.

Keep your selected stationary phase

SIELC offers custom column packing with sorbent supplied by the customer. Use your selected stationary phase in a column packed by SIELC for your separation workflow, including projects based on an established or proprietary sorbent.

A configuration for your application

Contact us to discuss the material, desired column dimensions, available quantity, and application requirements. Packing feasibility and the column configuration are reviewed for the specific project.

1 Describe the material

Provide the stationary-phase chemistry, particle size, and available quantity.

2 Define the column

Provide the stationary-phase chemistry, particle size, and available quantity.

3 Agree on the project

Confirm the packing configuration and applicable testing requirements before shipment.

Confidential project support

Customer-supplied materials and project information are handled in accordance with agreed confidentiality and NDA requirements.

CONFIDENTIAL

Isolate what matters

Target compounds, reference standards, isomers, and impurities.

Compound purification

SIELC supports purification of research compounds and preparation of high-purity materials and reference standards. Methods can be developed or adapted for customer-supplied samples and specific project requirements.

Isomer separation

Our capabilities include separation of chemically diverse isomers, with isomer ratios in purified fractions reported to the customer.

Impurity isolation

Isolation of impurities from drug candidates and synthetic intermediates provides material for structure determination and initial assessment of biological activity during early drug development. Preparative methods are based on client-supplied analytical data or methods established by SIELC.

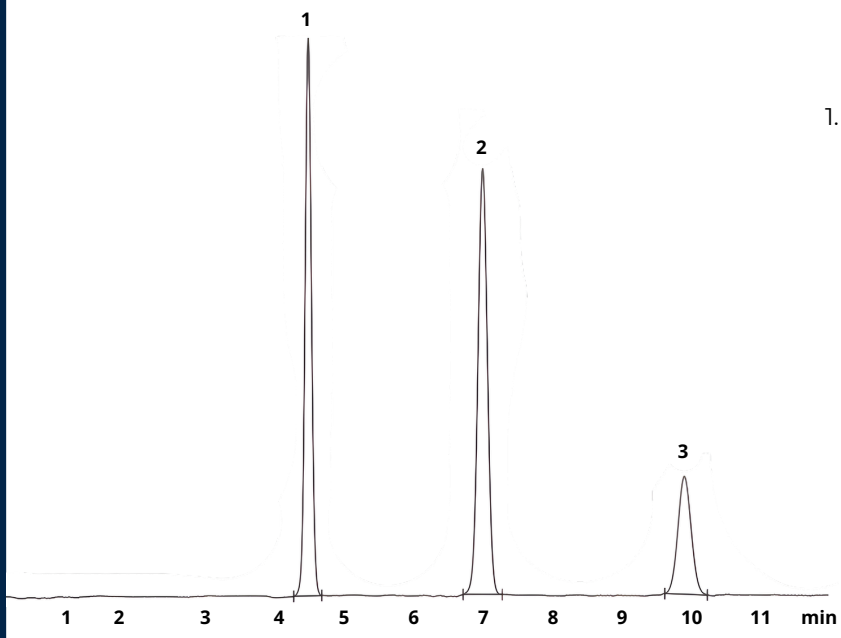
Guard-column options

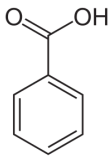
The guard system allows simple guard replacement. An optional holder enables direct guard attachment, providing a convenient configuration for the separation workflow.

When larger quantities are needed, methods can be scaled up to support initial toxicology studies.

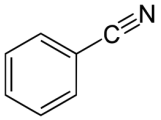
From sample to purified fraction

Analytical-Scale Separation

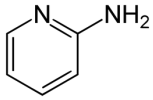




1. **Benzoic acid**



2. **Benzonitrile**

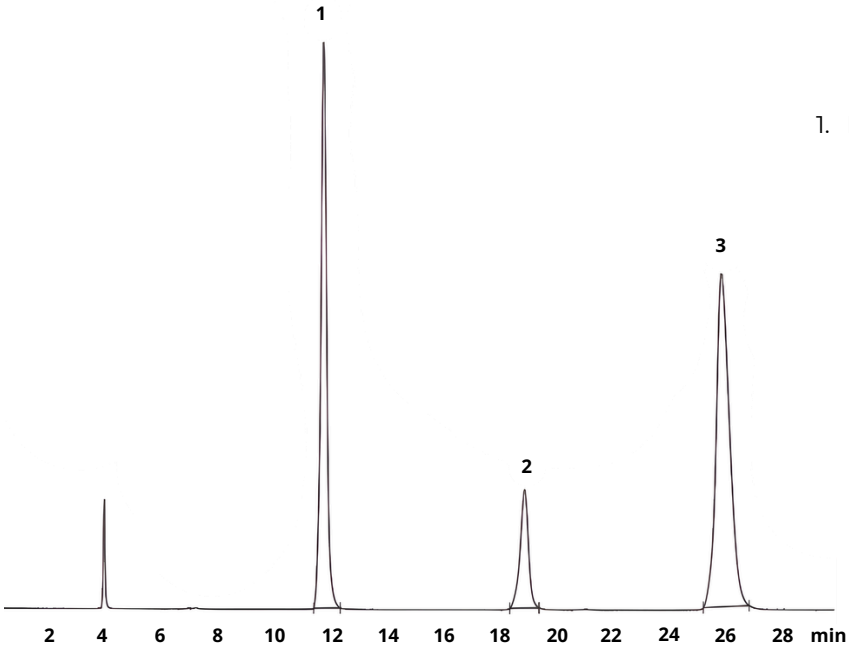


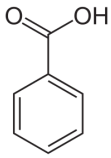
3. **2-Aminopyridine**

Peak Name	Retention	Plates	Symmetry
Benzoic acid	4.49	11441	1.05
Benzonitrile	7.01	12277	1.02
2-Aminopyridine	9.92	12540	1.05

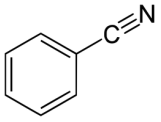
Column: Primesep™ 100
Column size: 4.6 × 150 mm, 5 µm
Column part number: A-46.150.0510
Mobile phase: H_2O/ACN/TFA - 70/30/0.1%
Flow rate: 1.0 mL/min
Detection: UV 230 nm

Preparative-Scale Separation

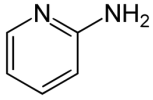




1. **Benzoic acid**



2. **Benzonitrile**



3. **2-Aminopyridine**

Peak Name	Retention	Plates	Symmetry
Benzoic acid	11.81	18140	0.97
Benzonitrile	18.96	21719	0.90
2-Aminopyridine	25.98	15006	1.23

Column: Primesep™ 100
Column size: 22 × 250 mm, 5 µm
Column part number: 100-220.250.0510
Mobile phase: H_2O/ACN/TFA - 70/30/0.1%
Flow rate: 18.0 mL/min
Detection: UV 275 nm

From sample to purified fraction

Method development, purification, impurity isolation, and final analytical assessment.

1. **Evaluate**
   Review available analytical data and define separation objectives.
2. **Develop**
   Improve resolution and optimize the analytical method where needed.
3. **Scale up**
   Transfer conditions to a suitable preparative column.
4. **Collect**
   Isolate target fractions using optimized sample loading.
5. **Concentrate**
   Concentrate collected fractions for further analysis or use.
6. **Verify**
   Assess final purity using SIELC and applicable client analytical methods to confirm consistency with the original analytical data.

Preparative facilities

Our facilities include HPLC pumps with flow rates up to 200 mL/min, manual and automated injection devices, variable-wavelength UV, refractive index and mass spectrometry detectors, plus fraction collection and concentration equipment.

Project-specific support

We adapt our approach to your material, separation objectives, and required quantities. Customer materials and project information are handled in accordance with agreed confidentiality and NDA requirements.

Product Information
sales@sielc.com

Method Development
research@sielc.com

Accounts Payable
finance@sielc.com