**Sublimation Purification**

We offer sublimation purification for both ready-made and customized compounds. Please feel free to contact us.

**Benefits of TCI**
- Fully integrated custom synthesis service
- An extensive range of unique sublimation apparatus capable of purifying various compounds by sublimation scalable from milligrams to kilograms
- Ability to analyze residual metals
- Low-moisture and/or low-oxygen packaging options

Comparison between colors of quinacridone before and after sublimation purification

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**How to Order Custom Synthesis**

We are ready to cater to your needs. Please contact us!

- Production of bespoke compounds
- Scale-up production of existing materials
- Small-scale synthesis for initial screening
- Continuous multi-ton scale production

Please feel free to ask any inquiry at the below address.

**Pledge of Confidentiality**

TCI is always committed to our confidentiality policy, however, we will also be pleased to sign any non-disclosure or confidentiality agreement if you wish.

**Technical Information**

Provided that your synthetic route can be disclosed, we will estimate a total cost based on the disclosed technical information. When additional information or analytical testing is required, we will discuss this with you before adding any extra work to the quotation.

**Quotation**

**Customer Acceptance and Commitment of Manufacture**

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**Custom Synthesis**

From milligram-scale to ton-scale
Why TCI?

1. Technologies
   - We will help you find the best solution with over 60 years of solid experience in organic synthesis.
     - Oligosaccharide Synthesis
     - Ultra Low Temperature Reaction
     - Halogenation Including Fluorination
     - Sublimation Purification
     - High-pressure Reaction
     - Asymmetric Synthesis
     - Fermentation

2. Intermediates
   - TCI’s wide variety of synthetic intermediates provides flexibility to design the most efficient synthesis route.

3. Facilities
   - We consistently handle multiple-step reactions and processes, using a wide variety of in-house equipment and facilities.
     - TCI has more than one hundred types of manufacturing equipment availability at its disposal, equating to over three hundred individual pieces of apparatus.

TCI offers

- Custom Synthesis: Custom synthesis is available upon request. If you can’t find a compound in our catalog, please do not hesitate to contact us.
  - Organic Intermediates
  - Functional Materials
  - Premix of Drug Medicines and Intermediates, Investigational New Drugs (TCI complies with cGMP)

- Scaling Up: Many compounds in our catalog are also available in larger quantities.
  - Electronic Materials (Low Metal Concentration)
  - Oligosaccharides
  - Raw Materials for Cosmetics

- Product areas

- Quantities
  - Milligram ~ Ton scale
  - Continuous production

Strict confidentiality is assured for all projects. If an official agreement is required, we can prepare one upon request.

Manufacturing Facilities


Reaction Equipment

- Main Reaction Equipment
  - Reactors: 100 L to 8000 L / Glass-lined, Stainless Steel
  - Ultra Low Temperature Reactors (40 °C): 200 L Hastelloy
  - Autoclaves: 1 L to 2000 L / Hastelloy, Glass-Lined, Stainless Steel / 20 kg/cm² to 200 kg/cm² / 150 °C to 300 °C

- Special Reaction Equipment
  - Continuous Hydrogenation Equipment
  - Electrosynthesis Equipment
  - Pipe- Reactor

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Analytical Equipment

- ICP-MS
- GC-MS
- LC-MS
- ICP-AES
- TOF-MS
- NMR
- UPLC-CAD

Clean Room

- ICP-MS
- NMR

Quality Control

(Final Test and Quality Maintenance)

High quality products through well-documented methods and procedures

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- Special Reaction Equipment
  - Continuous Hydrogenation Equipment
  - Electrolysis Equipment
  - Pipe-Reactors

Processing Equipment
- Main Filters
  - Centrifuges: 12-inch to 48-inch /Aflon, Gum, Stainless Steel
  - Sharples Ultra Centrifuge
  - Pressure Filters: 0.28 m² to 3.15 m² / Hastelloy, Polypropylene, Glass-Lined, Stainless Steel
- Main Dryers
  - Rotary Vacuum Dryers: up to 600 L / Glass-Lined, Stainless Steel
  - Conical Dryers: up to 3000 L / Glass-Lined, Stainless Steel
  - Freeze Dryers: up to 20 L / Stainless Steel
  - Drum Dryers: 2 m² / Stainless Steel

Distillation & Concentration Equipment
- Main Distillation Equipment & Main Concentrators
  - Distillation Equipment: up to 1000 L / Pyrex Glass, Glass-Lined, Stainless Steel
  - Rectification Towers: up to 2000 L / Pyrex Glass, Stainless Steel
  - Centrifugal Molecular Distillation Equipment
  - Centrifugal-Flow Thin-Film Vacuum Evaporator

Quality Control
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