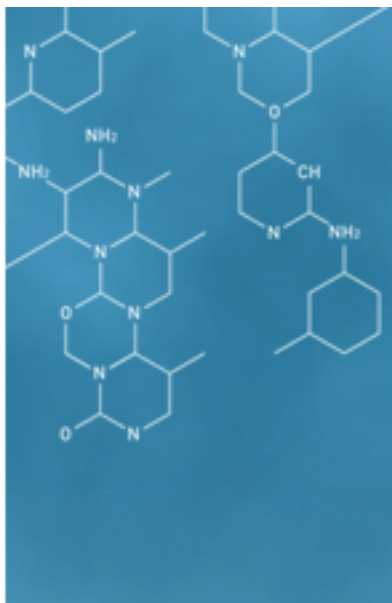


# ORGANIC SYNTHESES AND UNIPLUS

UNIPLUS는  
적절한 비용, 효율적인 방식,  
높은 품질의 제품, 양질의 서비스  
제공을 목표로 하고 있습니다.



# 우리의 꿈

우리가 만들고자 하는 회사

우리에게는 꿈이 있습니다.  
고객이 만족하는 물질을 제조하고,  
새로운 기능을 하는 신소재를 개발하여  
사회에 기여하려는 꿈이 있습니다

우리 모두 서로를 칭찬하고 항상 웃으며  
매사에 감사할 수 있는 문화를 만드는 꿈이 있습니다.

우리는 모두가 행복하고 즐거운 생활을 할 수 있는  
일터를 만들려는 꿈이 있습니다.

최선을 다하고 결과를 기다리며  
모두가 주인이고 가족인 터전이 되기를 바라는 꿈이 있습니다..

이 모든 꿈이 머지않아 실현되리라는 믿음이 있습니다..  
이러한 믿음을 이루기 위해

오늘도 최선을 다합니다..



- 목차

**Overview**

- Company outline
- Company History

**Main Business**

- Custom synthesis
- Organic Reaction

**Major Products**

- Thiophene derivatives
- Heteroaromatic derivatives
- Carbazole derivatives
- Electronic materials
- Organic intermediates

**Business areas**

- Process development from laboratory to production scale
- Production of new fine chemicals for electronics industry
- Custom synthesis of materials and projects involving contract researches

## ❖ OVERVIEW

### -Company outline

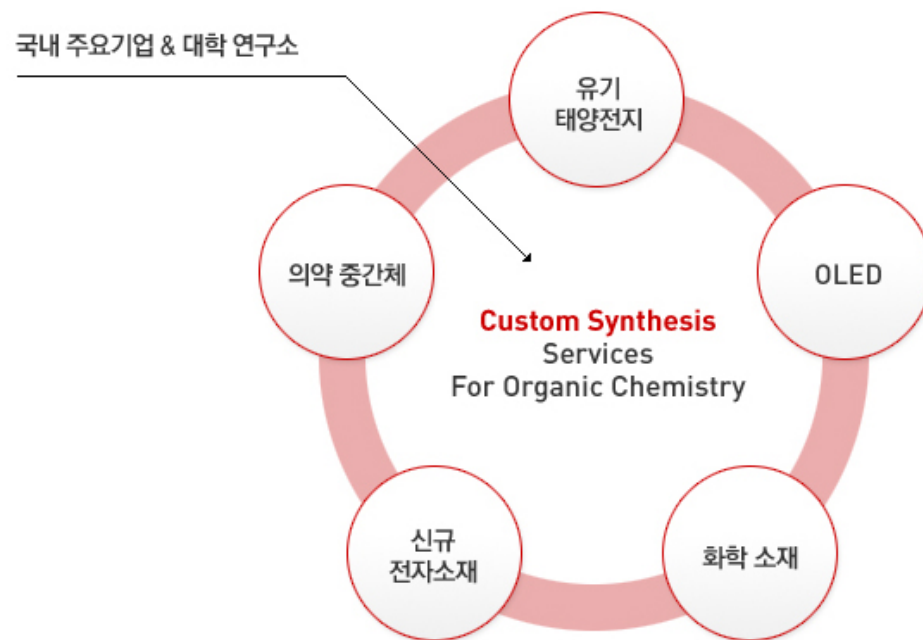
|       |                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------|
| 회사명   | (주) 유니플러스                                                                                             |
| 대표이사  | 장 석 구                                                                                                 |
| 주산업내용 | 전자소재관련 유기합성 연구                                                                                        |
| 주생산품목 | 전자화학소재                                                                                                |
| 주소지   | (426-791) 경기도 안산시 상록구 사3동 한양대학교 창업보육센터 422호 425~428호<br>(441-813) 경기도 수원시 권선구 고색동 958번지 수원첨단벤처밸리 817호 |

### - Company History

- 2005.09 (주)유니플러스 설립
- 2005.12 안산 한양대학교 창업보육센터 입주
- 2008.06 (주)유니플러스 기술연구소 설립
- 2008.06 연구개발 서비스업 신고
- 2010.07 품질경영시스템인증서취득 (ISO9001)
- 2011.06 벤처기업확인
- 2011.08 (주)유니플러스 수원 기술연구소 설립
- 2011.12 INNO-BIZ 기업인증 (유효기간 2014.12.20)

## Main Business

### - Custom synthesis



### - Specialty Chemicals

uniplus는 적절한 비용, 효율적인 방식, 높은 품질의 제품, 양질의 서비스 제공을 목표로 하고 있습니다.

- ▶ 공동연구  
공동연구를 통해 우리의 전문 지식 활용, 분자 설계와 기술 지원을 받으실 수 있습니다.
- ▶ 품질관리 및 납기 준수  
적정 순도의 제품을 얻을 수 있도록, 합성 및 정제 전략을 사용하며, LC, GC, NMR, IR, UV, GCMS 등 분석을 통해 품질관리에 최선을 다합니다.
- ▶ 지속적인 communication  
새로운 합성물질이 필요할 때, 바로 연락주시기 바랍니다.  
유능하고 경험이 풍부한 연구원들이 함께 도전하고 만들어 갑니다.

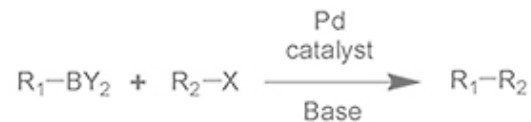
# Organic Reaction

핵심

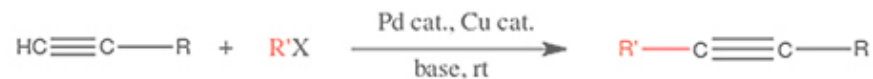
## 유기합성기술(Organic Synthesis)

합성, 정제 분석 | 전자소재, 의약품 중간체

### Suzuki Coupling Reaction



### Sonogashira Coupling Reaction



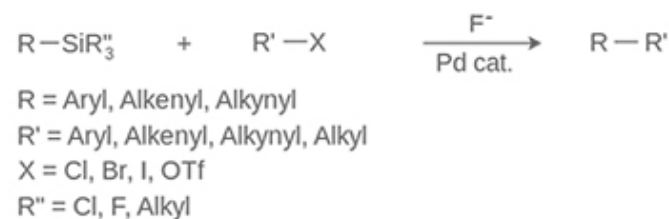
$R' = \text{Aryl, Vinyl}$

$X = \text{I, Br, Cl, OTf}$

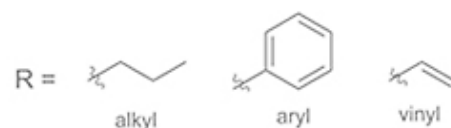
### Buchwald-Hartwig Coupling



### Hiyama-Coupling



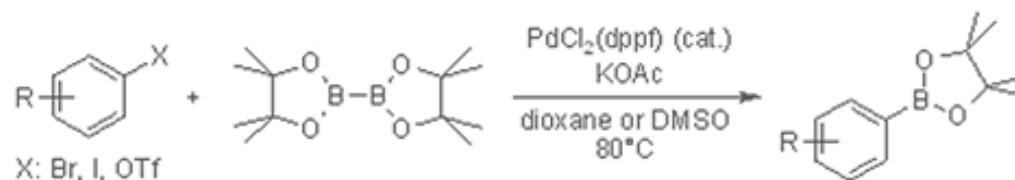
### Kumada Coupling



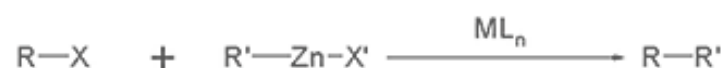
$R' = \text{vinyl, aryl}$

$X = \text{F, Cl, Br, I, OTf}$

### Miyaura Borylation Reaction



### Negishi Coupling



X is usually halides, triflate, and acetyloxy groups.

R = alkenyl, aryl, allyl, alkynyl or propargyl

M in the catalyst is nickel or palladium ligand.

L in the catalyst can be triphenylphosphine, dppe, BINAP or chiraphos.

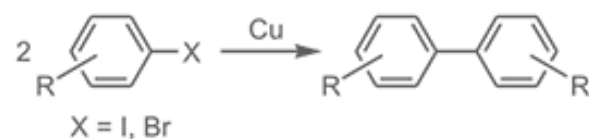
### Stille Reaction



X is typically a **halide**, such as Cl, Br, I.

Additionally, X can be a pseudohalide such as a **triflate**,  $CF_3SO_3^-$ .

### Ullmann Reaction

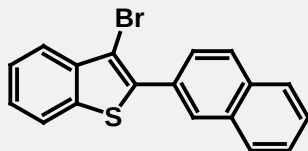


# Thiophene derivatives

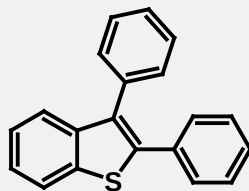


(주)유니플러스

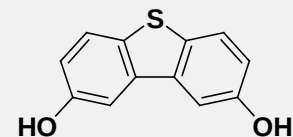
UNI 0701-03



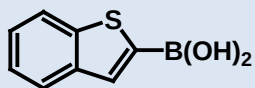
UNI 0701-04



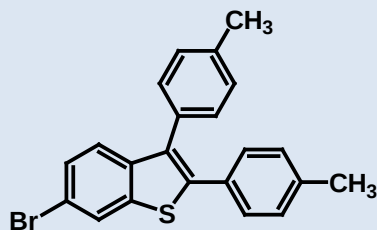
UNI 0910-06



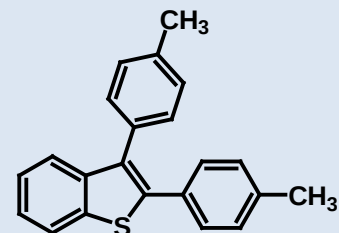
UNI 0701-06



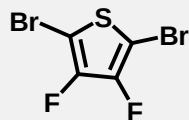
UNI 0705-04



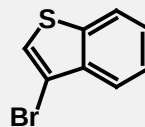
UNI 0705-05



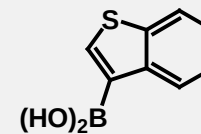
UNI 0803-03



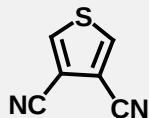
UNI 0701-01



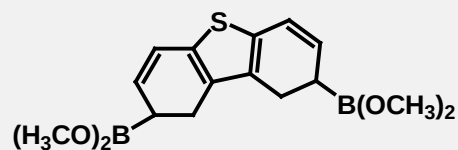
UNI 0701-02



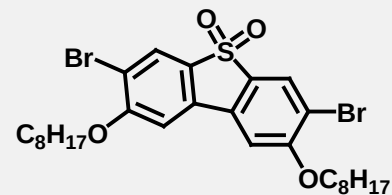
UNI 0809-04



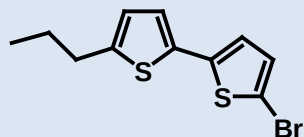
UNI 0910-02



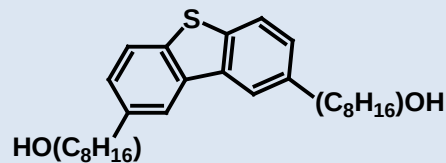
UNI 0910-03



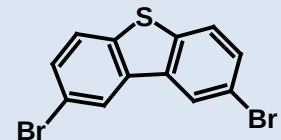
UNI 1004-02



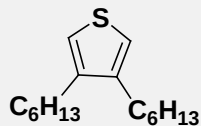
UNI 0910-05



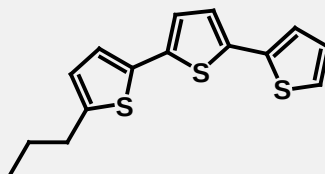
UNI 0910-04



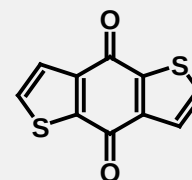
UNI 1109-06



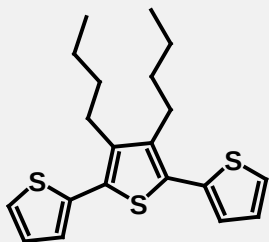
UNI 1004-04



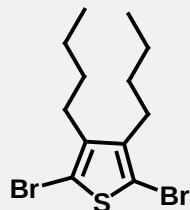
UNI 1005-01



UNI 1010-01



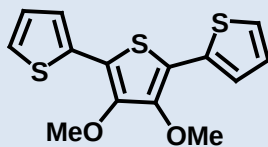
UNI 1010-02



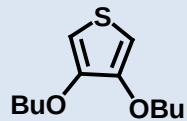
UNI 1010-03



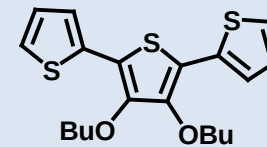
UNI 1109-07



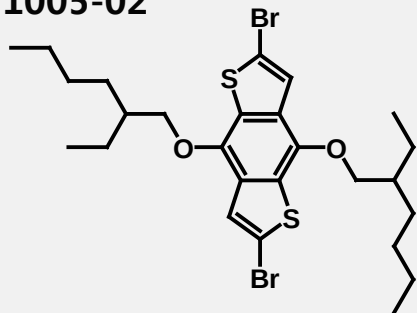
UNI 1109-08



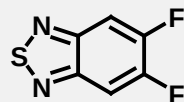
UNI 1109-09



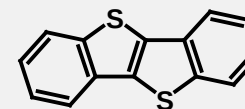
UNI 1005-02



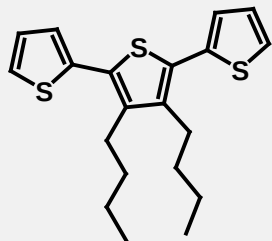
UNI 1105-03



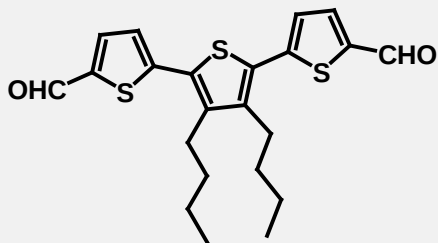
UNI 1005-04



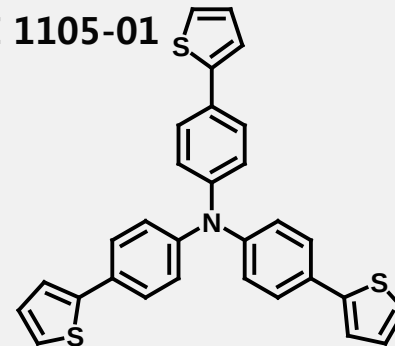
UNI 1208-03



UNI 1208-04



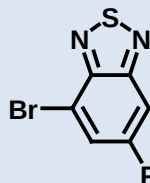
UNI 1105-01



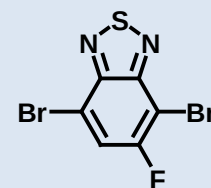
UNI 1202-07



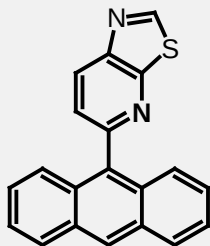
UNI 1202-02



UNI 1202-01



UNI 0803-01

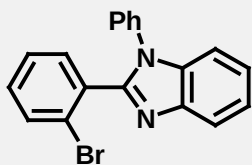


# Heteroaromatic derivatives

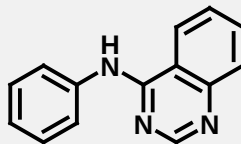


(주)유니플러스

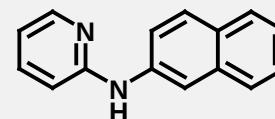
# UNI 1110-01



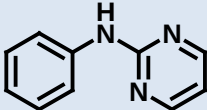
# UNI 1110-02



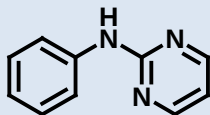
# UNI 1109-03



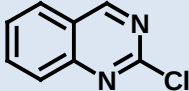
# UNI 1110-04

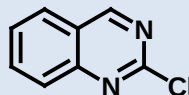
The chemical structure shows a benzene ring connected to a pyrimidine ring via an amine group (-NH-). The pyrimidine ring is a six-membered heterocycle with two nitrogen atoms at positions 1 and 3. The amine group is attached to the carbon at position 2 of the pyrimidine ring. The benzene ring is a standard hexagon with three internal double bonds.

Nc1ccncc1-c2ccccc2

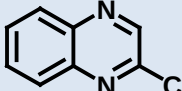
# UNI 1108-01

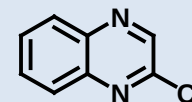
The image shows the chemical structure of 6-chloroquinoline. It consists of a benzene ring fused to a pyridine ring. A chlorine atom (Cl) is attached to the carbon at position 6 of the quinoline system. The SMILES notation for this compound is Clc1nc2ccccc2n1.



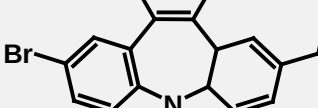
# UNI 1110-06

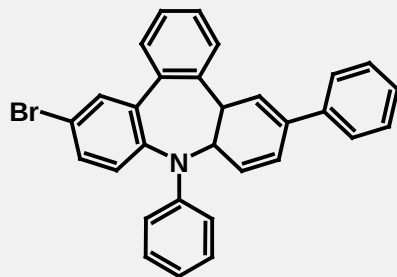
The image shows the chemical structure of 6-chloroquinoline. It consists of a benzene ring fused to a pyridine ring. A chlorine atom (Cl) is attached to the 6-position of the pyridine ring. The SMILES notation for this compound is Clc1ccnc2ccccc12.



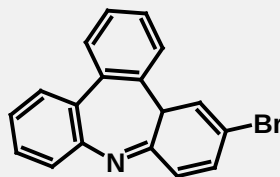
# UNI 1208-01



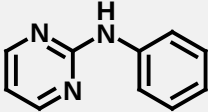
The chemical structure of UNI 1208-01 is a tricyclic compound. It features a central nitrogen atom (N) bonded to three phenyl rings. One phenyl ring is substituted with a bromine atom (Br) at the para position. The other two phenyl rings are unsubstituted. The structure is drawn in a perspective view, showing the three-dimensional arrangement of the rings and the bromine atom.

BrC1=CC=C(C2=CC=CC=C2N(C3=CC=CC=C3)C4=CC=CC=C4)C5=CC=CC=C51

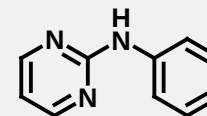
# UNI 1208-02



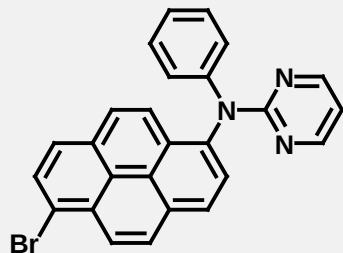
# UNI 1202-03



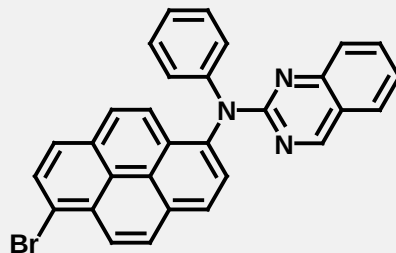
The image shows the chemical structure of N-phenylpyrimidin-2-amine. It consists of a pyrimidine ring (a six-membered aromatic heterocycle with two nitrogen atoms) substituted at the 2-position with a phenylamino group (-NH-C<sub>6</sub>H<sub>5</sub>). The pyrimidine ring is shown with double bonds at positions 2-3 and 5-6, and nitrogen atoms at positions 1 and 3. The phenyl ring is attached to the nitrogen at position 2.

Nc1ccc(cc1)c2ncnc3ccccc23

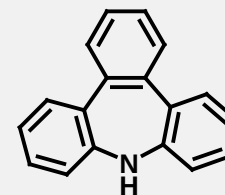
UNI 1203-01



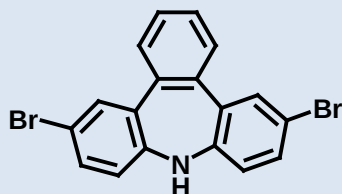
UNI 1203-02



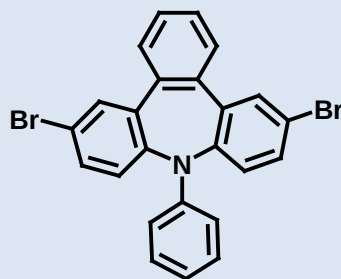
UNI 1203-03



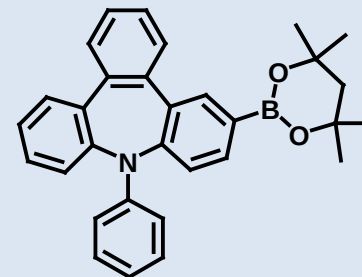
UNI 1203-04



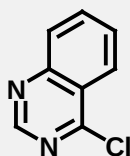
UNI 1203-05



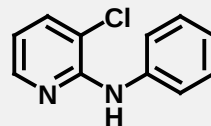
UNI 1203-06



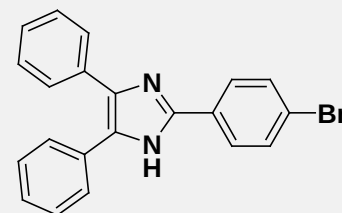
UNI 1202-04



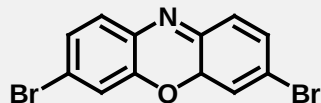
UNI 1205-07



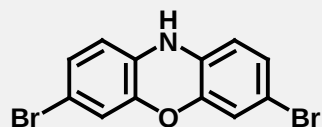
UNI 0605-06



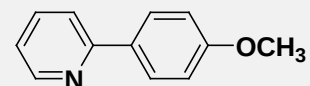
UNI 0704-02



UNI 0801-01



UNI 0705-03

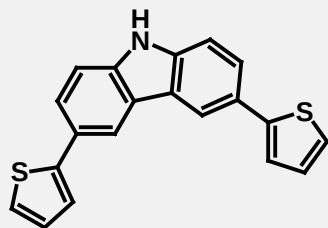


# Carbazole derivatives

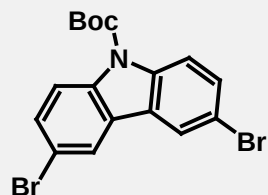


(주)유니플러스

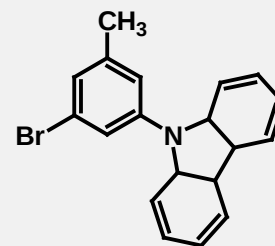
UNI 0809-01



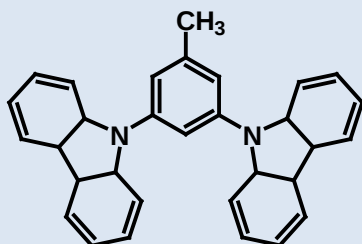
UNI 0809-02



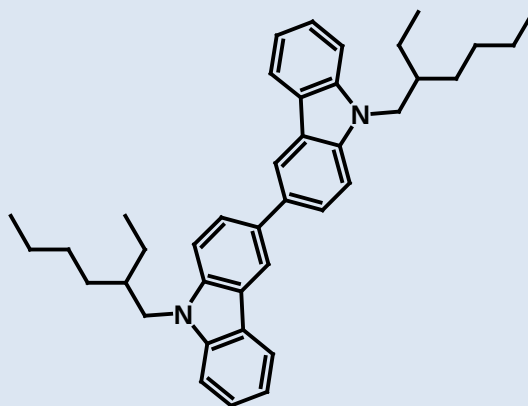
UNI 0605-01



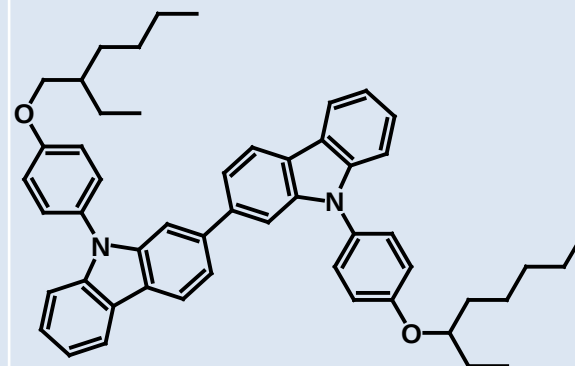
UNI 0605-02



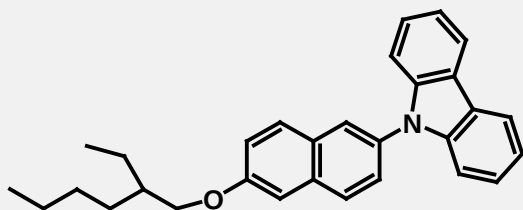
UNI 0909-03



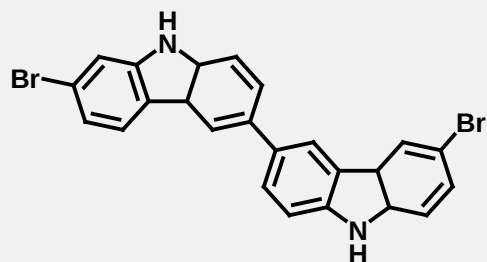
UNI 0909-04



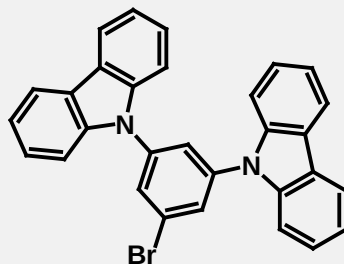
UNI 0909-05



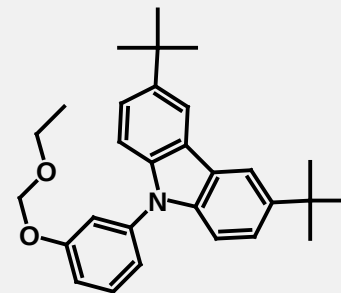
UNI 0910-01



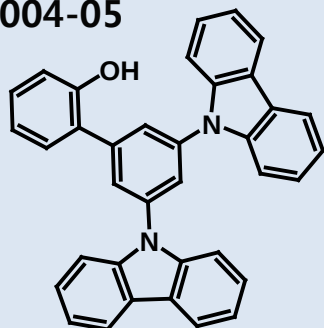
UNI 1004-03



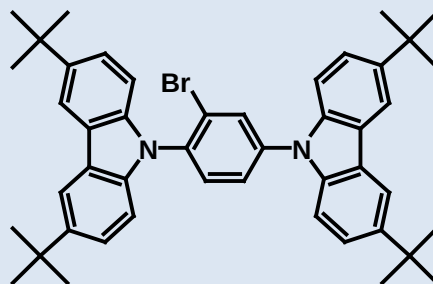
UNI 1004-07



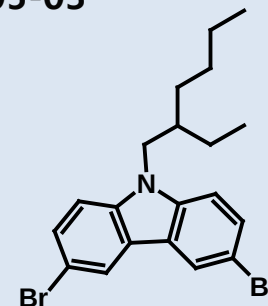
UNI 1004-05



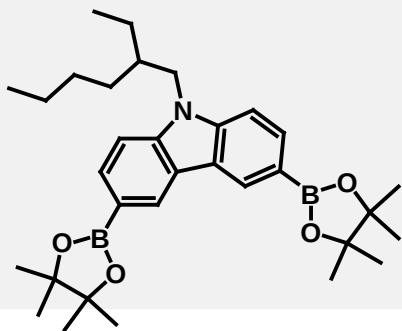
UNI 1004-06



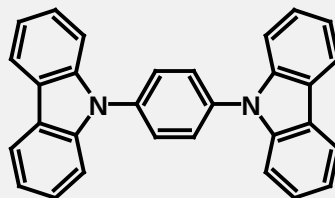
UNI 1005-03



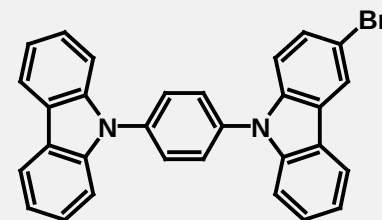
UNI 1005-05



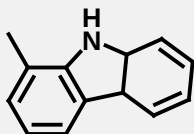
UNI 1007-01



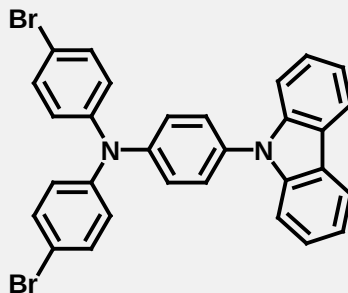
UNI 1007-02



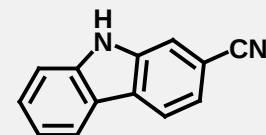
UNI 1103-03



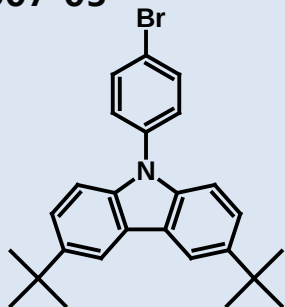
UNI 1205-08



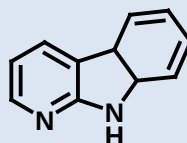
UNI 1103-01



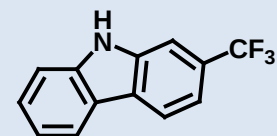
UNI 1007-03



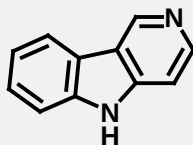
UNI 1205-01



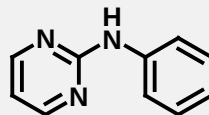
UNI 1103-04



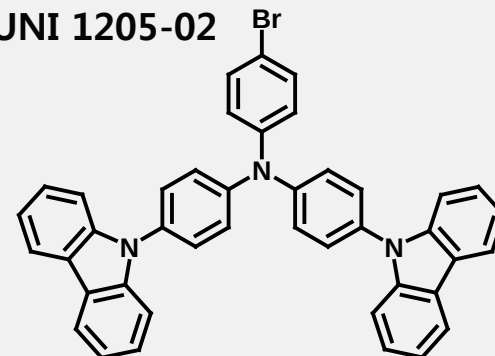
UNI 1109-04



UNI 1109-05



UNI 1205-02

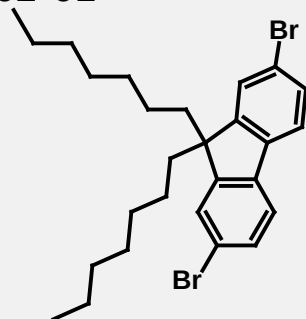


# Electronic materials

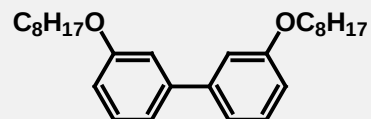


(주)유니플러스

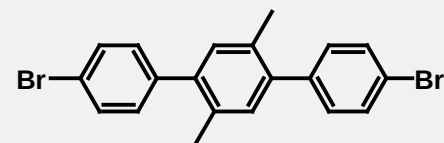
UNI 0602-01



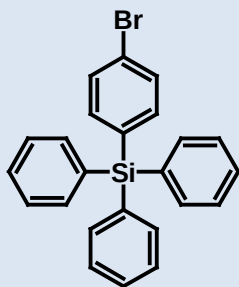
UNI 0908-02



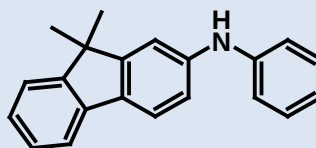
UNI 0908-03



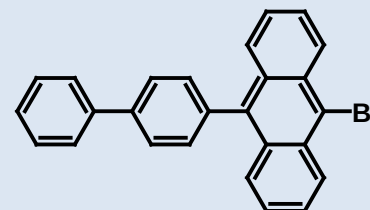
UNI 0602-03



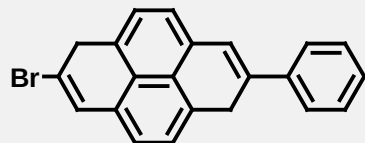
UNI 1104-05



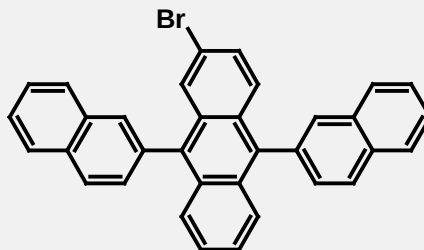
UNI 0803-02



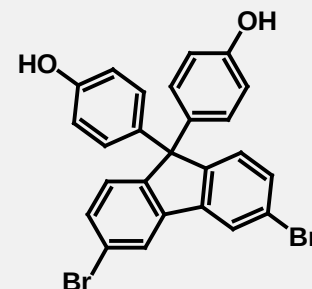
UNI 1109-02



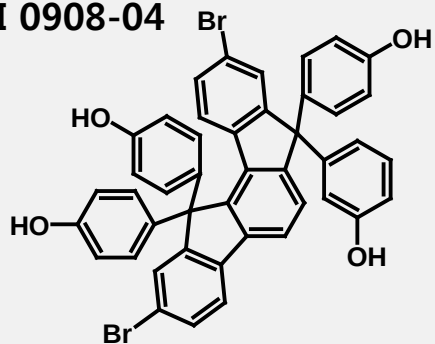
UNI 0804-01

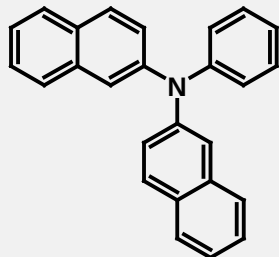
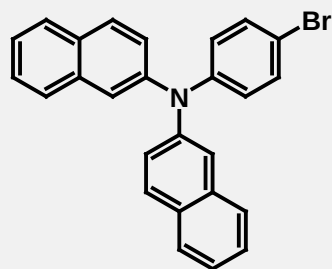


UNI 0905-02

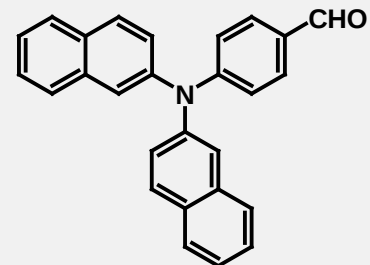
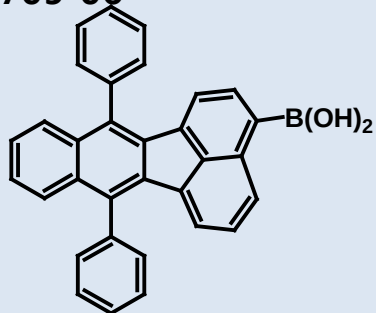
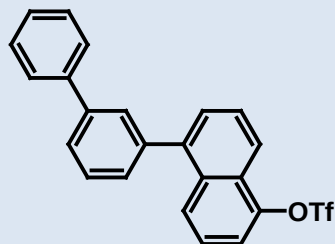


**UNI 0908-04**

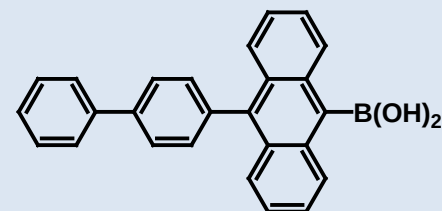
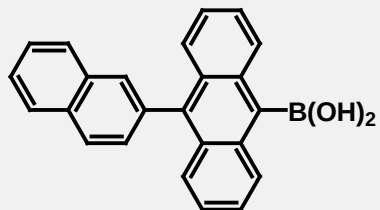
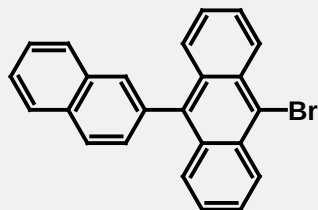


**UNI 0605-03****UNI 0605-04**

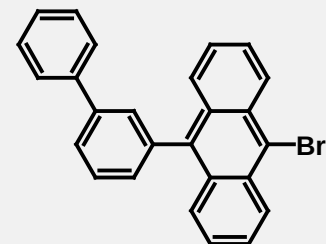
**UNI 0605-05**

**UNI 0705-06****UNI 0705-07**

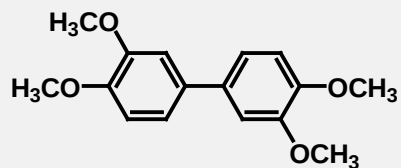
**UNI 0705-08**

**UNI 0705-09****UNI 0705-10**

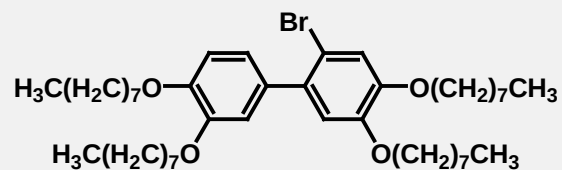
**UNI 0705-11**



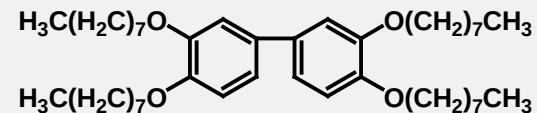
UNI 0911-06



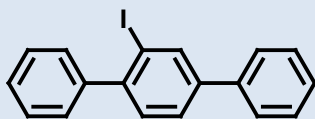
UNI 0911-04



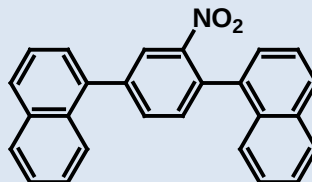
UNI 0911-05



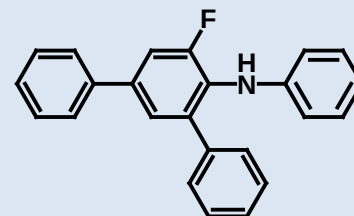
UNI 1104-01



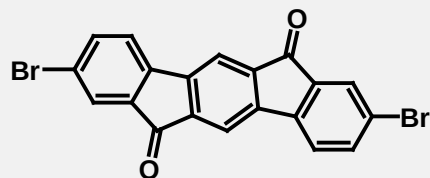
UNI 1009-02



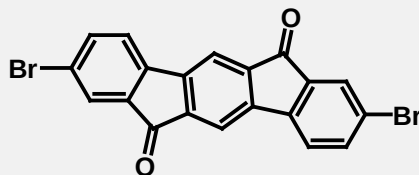
UNI 1009-03



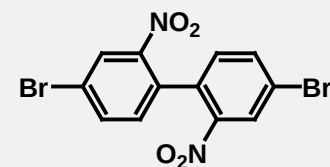
UNI 1004-01



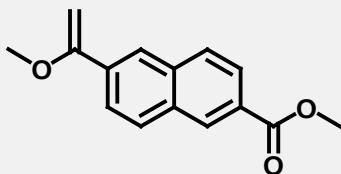
UNI 0908-05



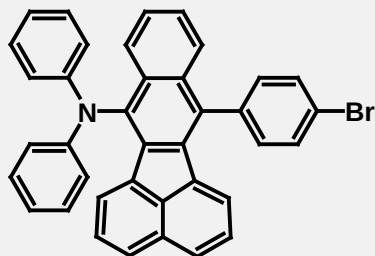
UNI 0909-01



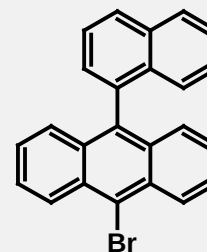
UNI 1202-03



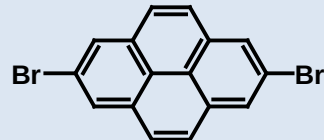
UNI 1103-09



UNI 1103-07



UNI 1103-08

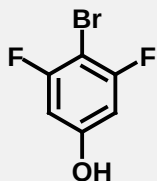


# Organic intermediates

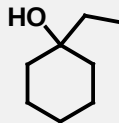


(주)유니플러스

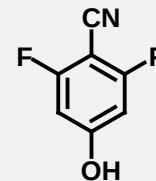
UNI 0401-01



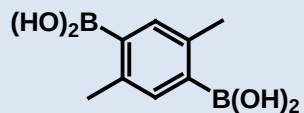
UNI 0501-01



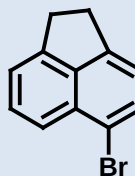
UNI 0501-02



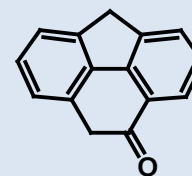
UNI 0908-01



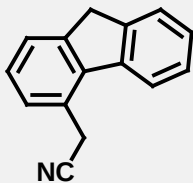
UNI 0604-03



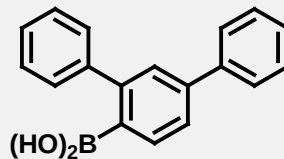
UNI 0801-02



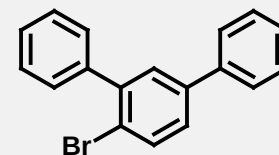
UNI 0801-04



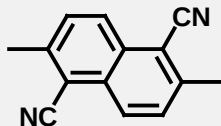
UNI 0604-01



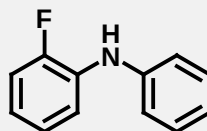
UNI 0604-02



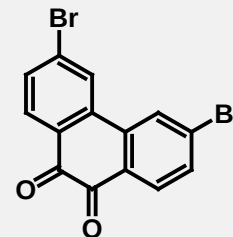
UNI 1105-02



Uni 1110-03



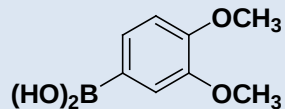
UNI 0905-01



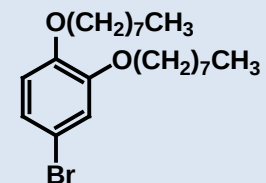
UNI 1109-01



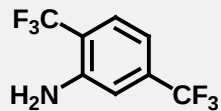
UNI 0911-07



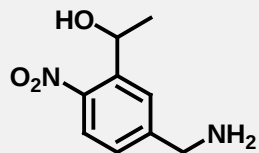
UNI 0911-08



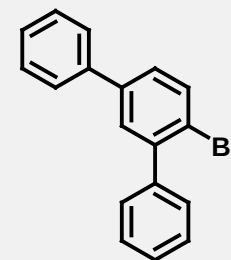
UNI 1106-01



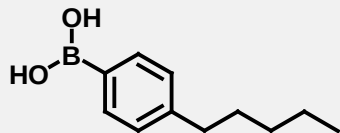
UNI 1107-01



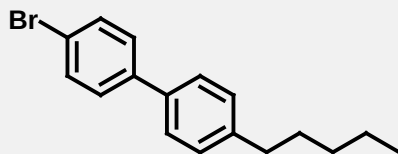
UNI 0705-02



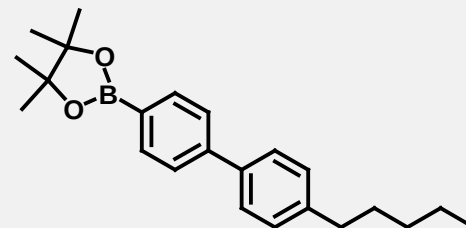
UNI 1205-03



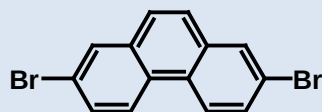
UNI 1205-04



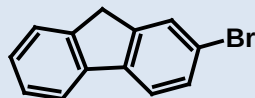
UNI 1205-05



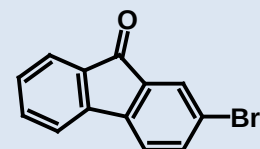
UNI 1103-10



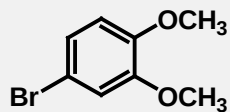
UNI 0911-01



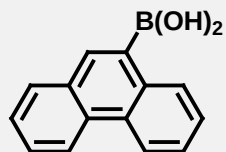
UNI 0911-02



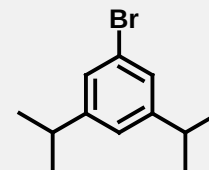
UNI 0911-03



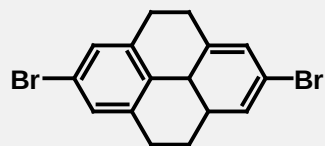
UNI 1104-02



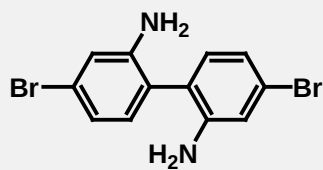
UNI 1104-03



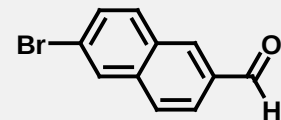
UNI 0701-05



UNI 0909-02



UNI 0702-01



UNI 1011-02

