

# High Throughput Experimentation



WuXi AppTec's High Throughput Experimentation (HTE) platform features a proven technology for microscale high throughput experimentation, bringing efficiency to discovery and in preparation for scale-up. Through our mastery of robotic metal catalyst pre-fill systems, photo reactors with a wide band of visible light, and standardized IKA electro reactors, we bring you comprehensive solutions for challenging chemical transformations in an efficient, cost-effective manner.

**120 K**

Reactions Screened

**2.8 M**

Conditions Screened

**100+**

Reaction Types

**24-48**

Cycle Time (h)

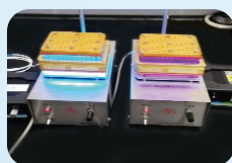
**60%**

Success Rate

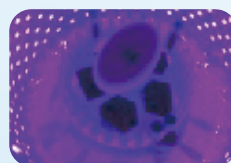
## Lab Equipment



Robotic system



96 well LED photo plate



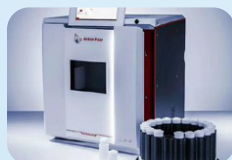
LED strip



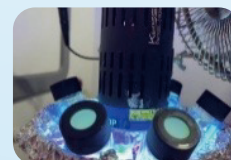
Penn PhD M2



Standard IKA 2.0



Anton Parr MW reactor



Kessil light



RLH 10-50 W

## Representative Reaction Types

### 40+ metal catalysis

- Buchwald-Hartwig coupling
- Suzuki-Miyaura coupling
- C-O C-P C-S
- Ullmann coupling
- Heck/Sonogashira coupling
- Miyaura borylation
- Olefin metathesis
- Stille coupling
- Cyanation
- Negishi coupling
- Oxygen free Chan-Lam

### 10+ non catalytic reactions

- Amide coupling
- Reductive amination
- Hydroxylation
- Chlorination
- Minisci reaction
- Oxidation
- Mitsunobo reaction
- $\text{S}_{\text{N}}\text{Ar}$  reaction

### 40+ photo catalysis

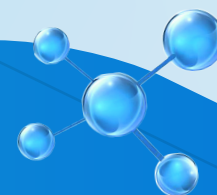
- Decarboxylative arylation
- Decarboxylative Michael addition
- Decarboxylative coupling with NHP ester
- Cross-electrophile coupling
- Hydrogen atom transfer coupling
- Minisci reaction
- Molander salt coupling
- Silicate salt coupling
- Cyclopropanation
- C-N C-O C-B bond formation
- De-Ts, De-PMB, De-Bn

### 20+ electro catalysis

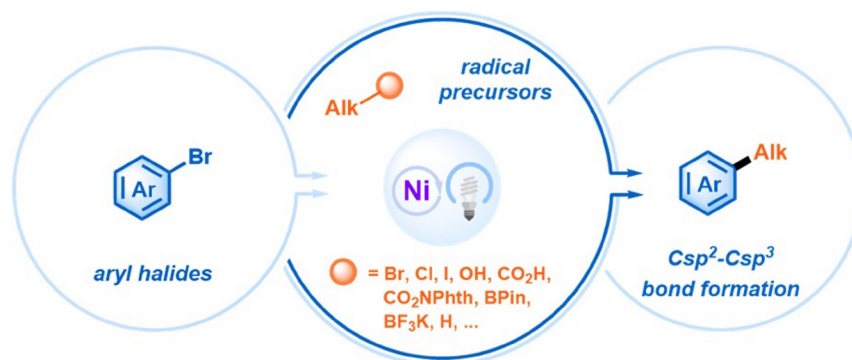
- Sterically hindered (cyclic or non) decarboxylative cross-coupling
- CEC for tolerance issue targeted protein degraders
- Shono oxidation
- BCP ring arylations which failed in photoredox
- C-H trifluoromethylation of 2-pyridones
- Olefine derivatizations cyclizations



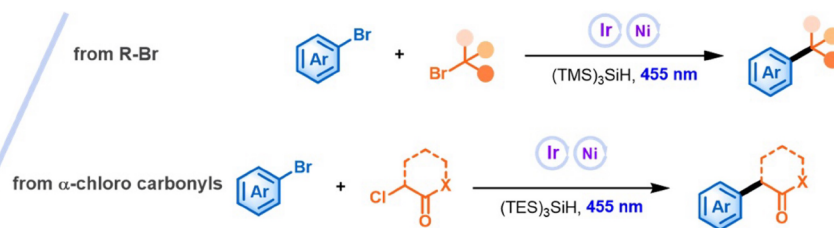
### Contact us

<https://rcs.wuxiapptec.com>
[chemistry\\_service@wuxiapptec.com](mailto:chemistry_service@wuxiapptec.com)


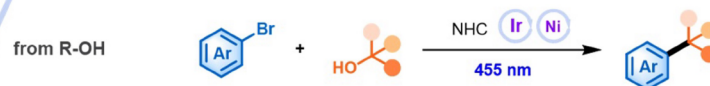
## Csp<sup>2</sup>-Csp<sup>3</sup> Bond Formation



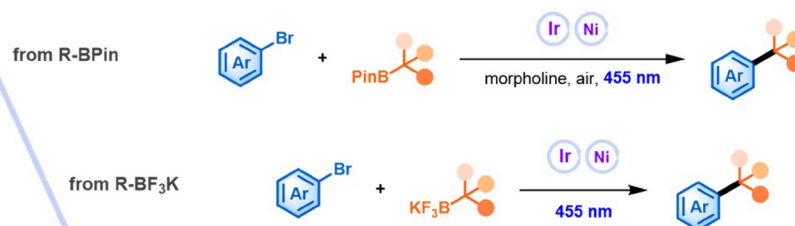
### Dehalogenative coupling



### Deoxygenative coupling



### Deboronative coupling



### Desilylative coupling



### Csp<sup>3</sup>-H arylation

