

HTE Platform Research Chemistry Services WuXi AppTec



Introduction



WuXi AppTec RCS's High Throughput Experimentation (HTE) platform has devised a technology for microscale high throughput experimentation. This state-of-the-art facility provides solutions for challenging chemical transformations in an efficient, cost-effective manner. The use of 24 or 96 well reactor blocks enables the screening of various reaction types according to specific chemical requirements.

With robust chemical capabilities and extensive experience, the HTE teams at WuXi AppTec RCS have successfully completed over 80,000 reactions and 1.8 million conditions, achieving a success rate of approximately 60% across more than 40 reaction types.

80 K

Reactions Screened

1.8 M

Conditions Screened

40+

Reaction Types

24-48

Cycle Time (h)

60%

Success Rate

Work Flow

Material Efficiency

4 mL 750 uL 250 uL



10 mg 1 mg 0.2 mg

Increased Productivity

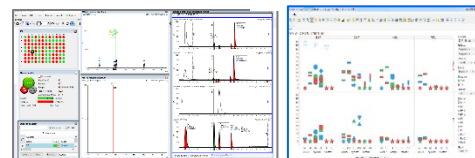
24 Well Plates 96 Well Plates 96 Well Plate
250 uL 750 uL 250 uL



Innovative Data Insights

Virscidian

Spotfire
TIBCO Software



Capabilities

Transition Metal Catalysis Screening

- Buchwald-Hartwig
- Suzuki-Miyaura
- Ullmann Coupling
- Miyaura Borylation
- C-H Activation
- Kumada coupling
- Negishi coupling
- Fukuyama coupling
- Hiyama-Denmark
- Mizoroki-Heck
- Stille coupling
- Sonogashira coupling
- Chan-Lam reaction
- Ring-Closing Metathesis

Non-transition Metal Catalyzed Reactions

- S_NAr Substitution
- Amide Coupling
- De-protection
- Minisci Reaction
- Mitsunobu reaction
- Reductive Amination
- Sulfonamide Formation
- Epoxide formation
- Click Chemistry
- Conjugate addition
- Appel Reaction
- O/N-Displacement
- Saponification
- Others

Photoredox Catalysis Screening

- Decarboxylative coupling
- Cross-electrophile coupling
- Hydrogen Atom Transfer
- C-H direct arylation
- C-H direct alkylation (Minisci type)
- Molander salt coupling
- Silicate salt coupling
- Cyclopropanation
- C-N C-O C-B bond formation
- Difluoro compound preparation
- Deoxygenative couplings
- Deoxytrifluoromethylation
- Cross alcohol couplings