



Accela ChemBio Co., Ltd.

Quality R&D and Fine Chemical Supplier

2019.5

Introduction



Since 2007, headquartered in Shanghai and San Diego

Focus on design, synthesis and manufacturing R&D chemicals

Integrated chemistry service:
Catalog - CMO lab & pilot - Manufacture

Excellent R&D management team - Pharma experienced

ISO9001 certified by TÜV Rheinland, Germany

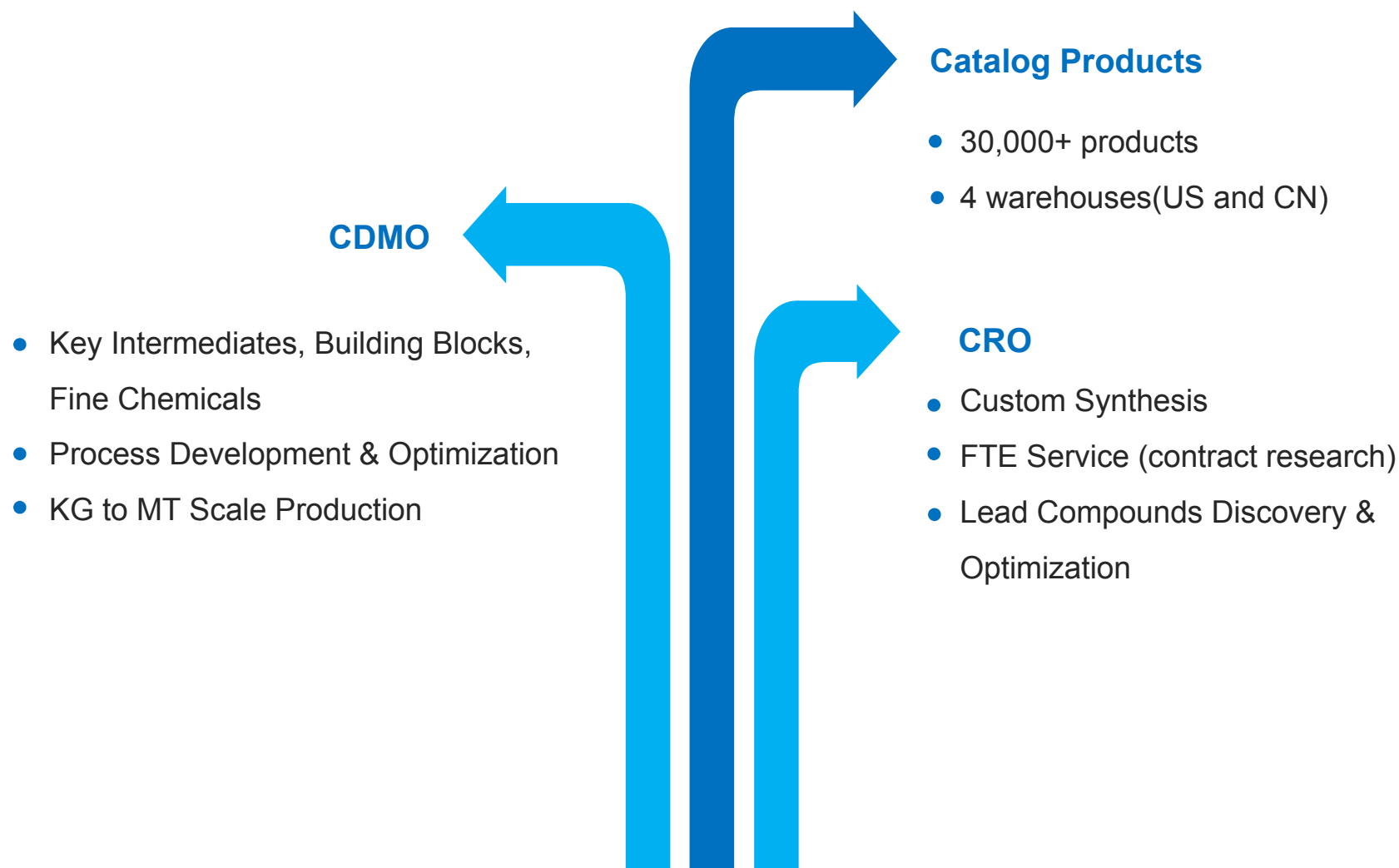
Quality and EHS - compliant

4,000+ Customers all over 40 countries

ISO 9001 Certificate
(Shanghai Shaoyuan Co. Ltd.)



Primary Business



Catalog Products



30,000 products

Specialize in Heterocyclic Building Blocks
(acids, amines, boronates, chiral, fluorinated,
halides and heterocycles)

Structure search on any PC/platforms

Every batch analyzed and QA-released

Dynamic stock, COA & Spectra online



CRO-R&D center



• 3 Research Centers



Shanghai R&D Center



Jinan R&D Center



Process Research Center

CDMO-Plant

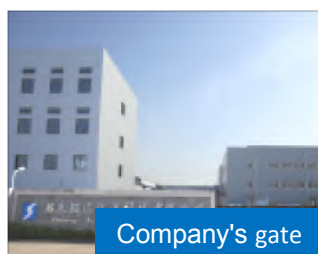
Green facilities are located in Qidong Binjiang Fine Chemical Industry Park in Jiangsu Province, China, which are approved by provincial environmental protection bureau.

Since 2014

Refer to ICHQ7 and Chinese GMP Guidelines

ISO9001 certified by TÜV Rheinland

Phase I - Building area	
Plant	Building area
Complex Building	3360m ²
1# workshop	1360m ²
2# workshop	1360m ²
Warehouse	3280m ²
Power house	700m ²
Waste Treatments	480m ²



CDMO-Capacity

Workshop	Facility	Specification	Texture	Quantity	Volume	Condition	Use	Capacity
1#	Reactor	100L~2000L	Glass lining	17	18.8m³	-20~140℃	Multi-functional workshop	30T/year
		200L/1000L	Stainless steel	2	1.2m³	-30~300℃ -80~140℃		
		200L/500L	Stainless steel	2	0.7m³	-20~140℃ 6.5Mpa		
	Centrifuge	PSB800/PSB1000	Stainless steel	2	—	—		
	Dryer	SZG-500/FZG-15	Stainless steel	4	—	0~100℃		
2#	Plant building is completed with area 1360m2 , and equipment installation plan is stated as follows: The number of reactors: 30 Specification: 100L~5000L Texture: Enamel and Stainless steel Temperature range: -80~200℃ Pressure: 0~10MPa Designed capacity: 40 Tons a year							

Note: The running workshop1# can meet the needs of current CMO projects, and workshop 2# is being installed with equipments, which will provide a reliable guarantee for further development.



Reactor



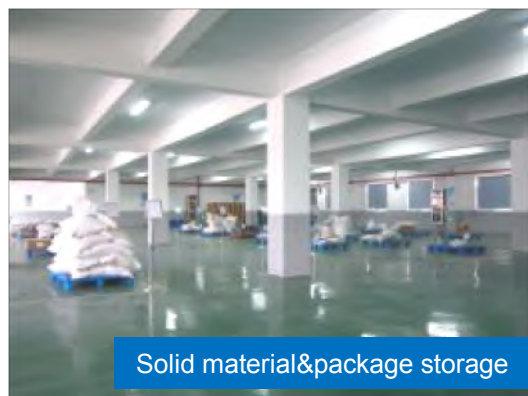
Centrifuge



Dryer

CDMO-Storage

Warehouse	Area
The total warehouse	3280m ²
Solid material&package storage	1235m ²
Liquid material storage	700m ²
Product storage (including freezer)	1235m ²
Hardware storage	110m ²



CDMO-Core Technology



Diazotization

Grignard reagents reaction

Enzymatic chiral synthesis

Nitration

Lithium reagents reaction

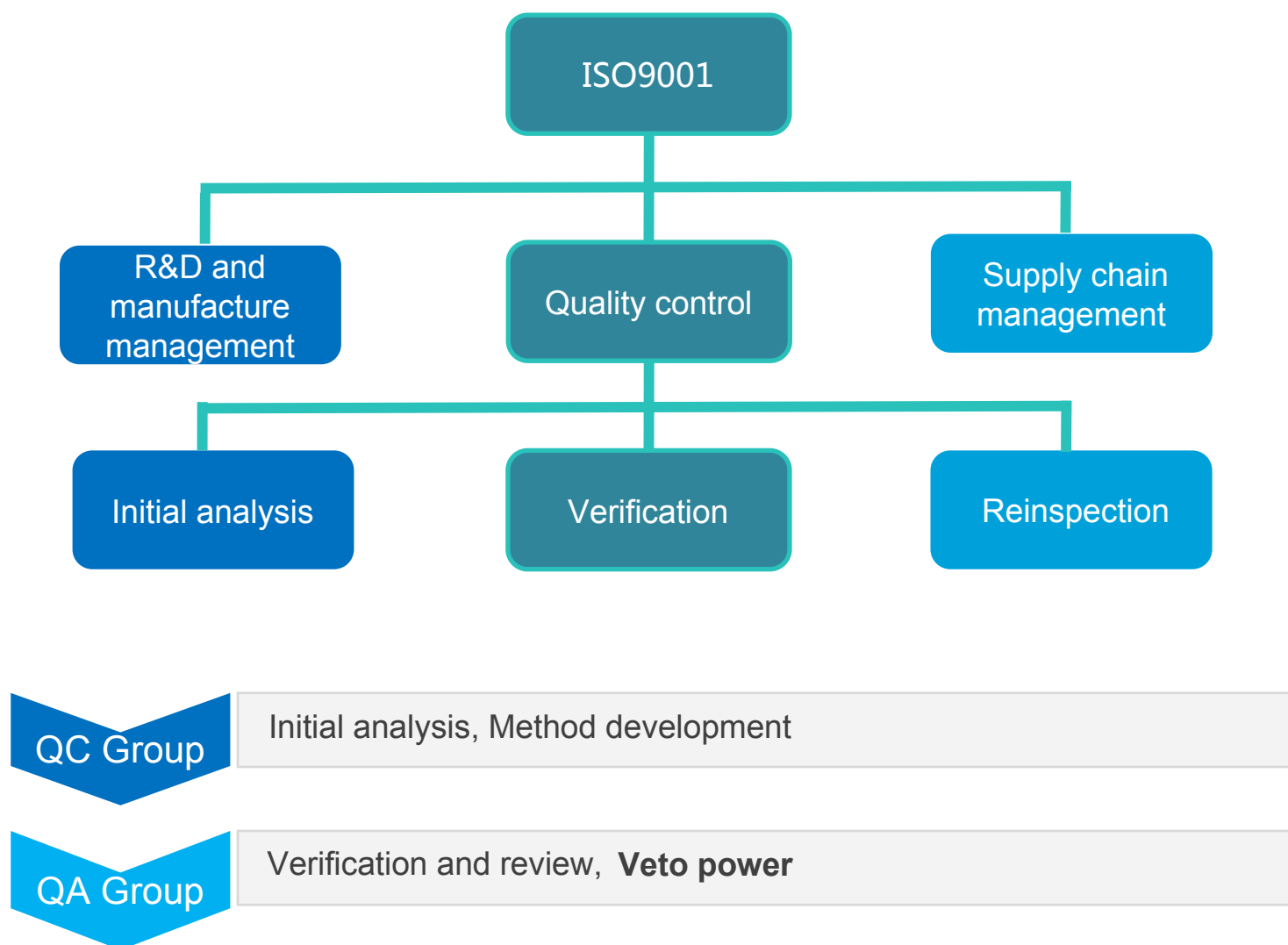
Fluorination

High Pressure chemistry

High temperature chemistry (300°C)

Low temperature chemistry (-80°C)

Quality Standard



CDMO-QCQA



Research Facility	Qty	Analytical Instrument	Qty	Analytical Instrument	Qty
Wet Chem Lab Bench-top Hoods	102	300 MHz Bruker NMR	1	DSC	1
Wet Chem Lab Walk-in Hood	10	Agilent GC-MS	1	UPLC	1
20-50L Glass Reactors / 10L Autoclave	4	Dionex LC-MS	1	Polarimeter	1
Corning Micro Reactors	1	Dionex/Shimadzu LC	6	Titration	1
IMM Flow Reactors	3	Agilent GC	2	Others	8

CDMO-IP Protection&EHS

IP Protection

- Regularly training for employees
- Signing of Confidentiality Agreements (NDA)
- In-house safeguard of electronic security information
- Minimization of access to IP sensitive materials
- Distribution and recollection of IP sensitive documents, monitored by Project Manager.

EHS

- Compliant with all local environmental and safety regulations
- R&D center passed government agency audit in 2013
- Manufacturing site passed government agency audit in 2015



CDMO - Our Team



Technical management team

Leaded by two Sr. Scientists PhD with US working/study experience

Extensive expertise and excellent track record

Synthetic chemistry, Process R&D, CRO/CDMO



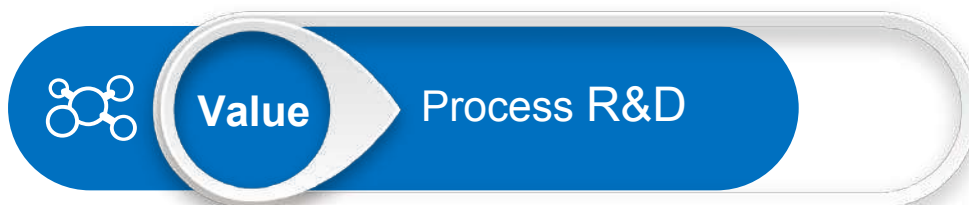
Project Management Team

Consists of RD, BD personnel

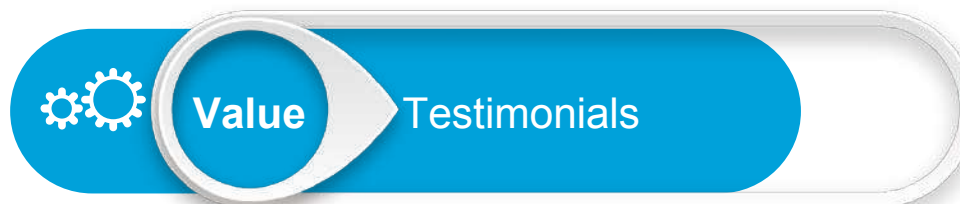
Internal project planning and execution, and report progress and results to customers.

Better communication with customer

Why Accela?

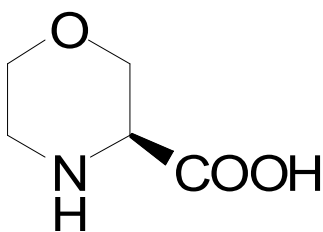


- Synthetic route design, evaluation & scouting
- Seamless transition from lab to pilot
- Process development and optimization to reduce cost and maximize output
- Safety Profiling



- "I like Accela business philosopher, your product quality is very good with very competitive price. "
— A Sr. Medicinal Chemist in Boston
- "We are very pleased with the material quality and timeline! (we're planning to order more materials in the near future."
— Matt J. from California, USA

Case study(I)



SY003807

Reported route:

8 steps, overall yield 9%, ee%=95%

Difficult workup & purification.

Accela route:

5 steps, overall yield 20%, ee%=99%

Easy purification, great reproducibility

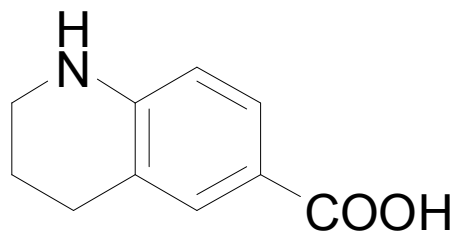
Scalable to 10-50 kgs

Cost reduction by 12 times

PMI lowered by 4 times.

(PMI:Process Material Index)

Case study(II)



SY003732

Provided route:

3 steps, overall yield 17%

Exothermic, large amt strong acid

Accela route:

4 steps, overall yield 40%

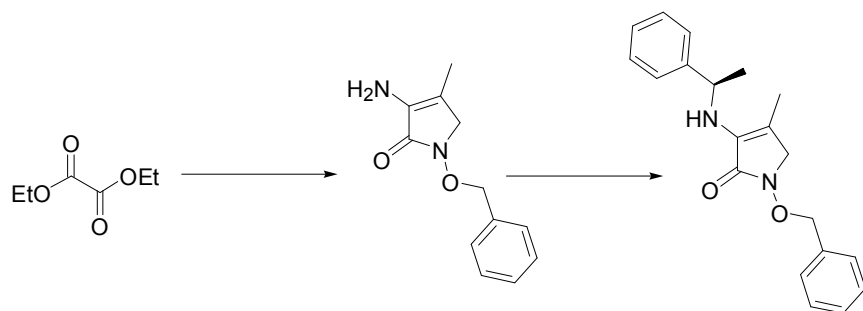
Non exothermic, No strong acid

Scalable to 10 - 100 kgs

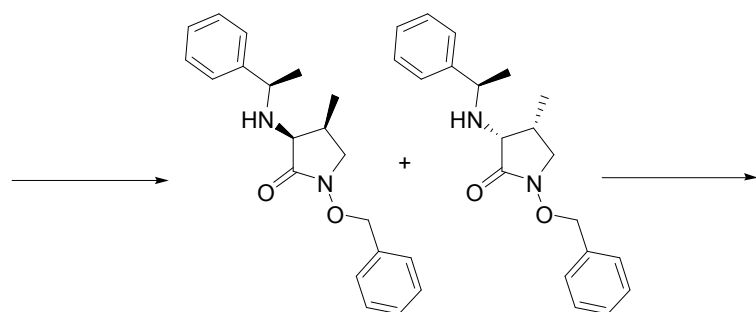
Cost Reduction by 6 times

PMI 5 times lower.

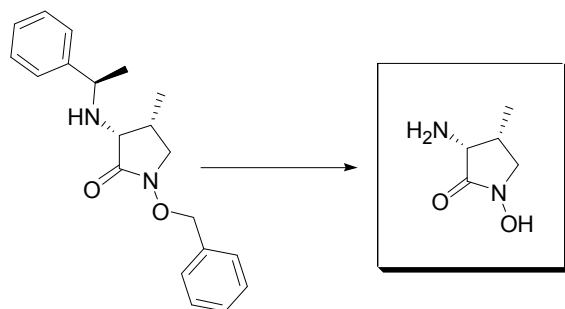
Case study(III)



Original route:
Chiral HPLC; mg scale only



Accela route:
Innovative chiral separation
6 steps, 98%ee
30 g to kg scale
Lower production cost



Case study(IV)

I.P. Protection

2015 Project:

16 sequential steps;
delivered two 100-g batches and a 4-kg batch
within 5 months;
employed enzyme-catalyzed chiral synthesis,
low temp Wittig rxn to generate cis-alkene;
all oil materials purified by multiple flash column.

The target structure and more details could not
be shared here for IP protection.



Quality Products

Accountable Services

Dependable Business Relationship

THANKS

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