

# JUNIOR

Powder Viscous Catalyst Preparation System

全自动高通量催化剂制备仪



**UN**CHAINED  
LABS



## Cover all the sample preparation bases 涵盖全部样品制备变量

Junior screens all your substrates, catalysts, reactants, solvents and reaction conditions so you can tackle a huge range of organic transformations. Dead-on dosing of small amounts of solids, liquids, slurries and viscous reagents keeps use of precious, hazardous and expensive materials at an all-time low when prepping your reaction solutions. Tight reaction control during sample preparation process ensures that your samples are ready for analysis whenever you are.

Junior可以筛选所有底物，催化剂，反应物，溶剂和反应条件，让您能够筛选出最理想的有机反应。高度精准的粉末分装，液体分配，浆液分配和粘性液体的分配能够降低成本。通过严格控制反应条件可以提高后续样品分析的质量和效率。



## Sample preparation workflow 样品制备过程



1. Solid dispenser tool 粉末分装工具



2. Liquid dispenser  
液体分装工具

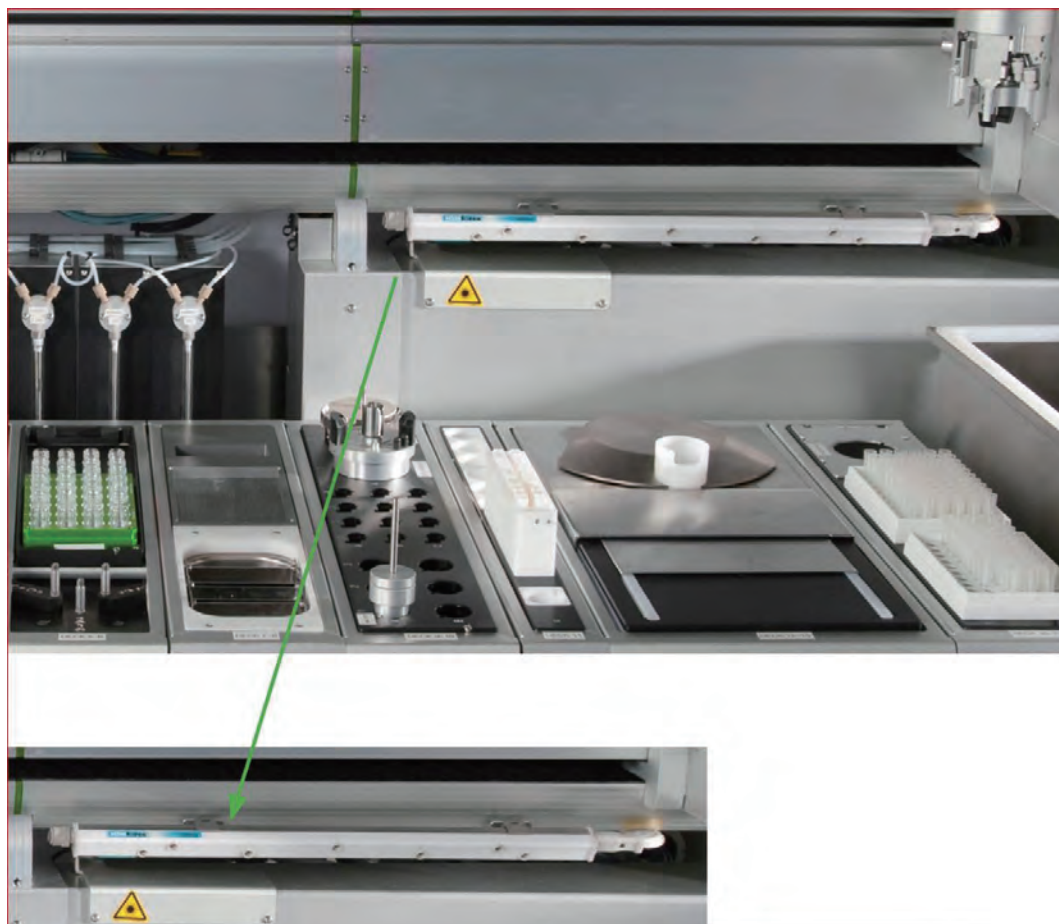


3. Balance with Integrated Camera  
天平和摄像头



4. Vial and Plate Gripper 小瓶子和孔板抓手

## Automated on deck static removal ionizer 全自动除静电负离子装置



Ionizer 负离子装置

## Extra consumables storage space 耗材储存架



Vertical Plate Hotel 垂直孔板架

## Dial in your sample prep process 了解您的样品制备过程

The Junior powder viscous dispense system is an automated powder and liquid dosing system that enables precise, traceable, and accurate weighing and dispensing of sub-milligram to gram quantities of a wide range of materials. Our technology ensures powders and liquids are delivered with high accuracy and precision. An adaptive learning algorithm monitors and optimizes dosing parameters to compensate for variability in powder properties during the filling process.

Junior 粉末液体分装仪可实现精确的称重, 并可分配各种从毫克至克的材料。我们的固体和液体分装头设计确保粉末和液体的移取具有高精度和高准确度。智能学习算法监视和优化定量参数, 以弥补移取过程中粉末特性的变化。



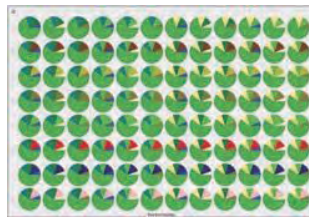
- |   |                                       |   |                                       |
|---|---------------------------------------|---|---------------------------------------|
| 1 | Waste Bin 废料桶                         | 4 | Vial/Plate Gripper 小瓶/孔板抓手            |
| 2 | Powder Dispense Hopper Tack 固体样品瓶组合架  | 5 | Tube Rack 液体样品瓶架                      |
| 3 | Liquid and solid Dispensers 液体和粉末分装工具 | 6 | Balance with integrated camera 天平和摄像头 |
|   |                                       | 7 | Vertical Plate Hotel 垂直孔板架            |



## Software break through bottlenecks 软件优势

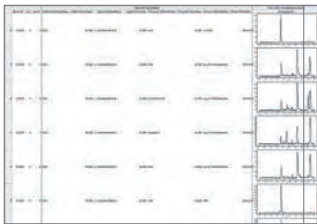
LEA doesn't move the bottleneck, it totally unclogs it. You get intuitive experimental design that makes sense on the front end and full integration with analytical tools on the back end. LEA also links your conditions, steps and analytical data together, so your final report doesn't just have numbers, it's got all the information you need to make real decisions.

我们强大的LEA软件包，能帮助您做出最有效的试验设计，既能让用户操作界面更简便高效，又能将后续的分析仪器数据整合到中央数据库。LEA能把实验条件、步骤和数据分析有效结合，所以您的实验报告不仅包含实验结果的数据，而且涵盖整个实验过程的全面信息，以协助您做出最有效的判断。



**Library Studio**  
Design complex, high-throughput experiments in an array-based format  
设计复杂高通量实验

**PolyView**  
Review and report all info from experimental design, execution and analytics  
查阅实验执行和结果的报告



**Automation Studio**  
Execution of designed experiments and integrated analytics  
执行实验和分析工具



# Junior Powder Viscous Specification 样品制备仪器参数

## Vial/plate gripper 小瓶子/孔板抓手

**Plate handling:** 孔板架

- **Maximum plate weight:**1000g with grooves 孔板最大重量: 1000g

**Vial handling:** 小瓶架

- **Minimum vial diameter:** 8mm 瓶子最小直径 8mm
- **Maximum vial diameter:** 60mm 瓶子最大直径 60mm

## Solid dispense 粉末分装

**Dispense technology:** Dispense algorithm dynamically controls the dispensing head to adjust for powders with different densities, particle sizes, particles shapes, and static charges  
分装特点: 分配算法动态控制分配头, 可以对不同密度、粒度、颗粒形状和静电荷的粉末进行调整分配

**Storage vial (SV) powder dispense:** Unique vibratory dispensing mechanism for highly precise dispensing of amounts from as low as 0.5mg to 25 mg

储存瓶粉末分配: 独特的振动分配机制, 高精度分装 0.5-25mg

## Viscous liquid dispense 液体分装

**Technology:** Positive displacement tip (PDT)

技术特点: 正压移吸头

**Disposable tips:**10–10,000 $\mu$ L, from Eppendorf and Rainin

一次性吸头: 10–10,000 $\mu$ L, 来自艾本德和瑞宁

**Viscosity:** 1–1,000 cP

粘度: 1–1,000 cP

## Balance with integrated camera 天平和摄像头

**Maximum weight:** 最大称重量

- **Standard:**1200g 标准
- **High-sensitivity option:** 220g 高灵敏度选项

**Sensitivity:** 灵敏度

- **Standard:** 0.1mg 标准
- **High sensitivity option:**0.01mg 高灵敏度选项

**Resolution:** 分辨率

- **Standard:**0.1mg 标准
- **High-sensitivity option:** 高灵敏度选项
  - 0.01mg(0–110g)
  - 0.1mg(110–220g)

**Repeatability (std dev):** 重现性

- **Standard:**
  - **High weight (measured>200g):**0.25mg (测量>200g)
  - **Low weight (measured up to2 00g):** 0.15mg (测量到 200g)
- **High-sensitivity option:** 高灵敏度档
  - **High weight (measured at 200g):**0.15mg (200g 测量)
  - **Low weight (measured at 10g):**0.04mg (10g 下测量)

**Response time:**<22ss 响应时间

**Camera resolution:**1032 pixels (max wide) x779pixels(tall)

相机分辨率: 1032 像素(最大宽度)x779 像素(高)

# Junior Powder Viscous Specification 样品制备仪器参数

## Vertical hotel storage capacity 垂直孔板架

**Maximum storage 1mL plates:** 15 最大板载量: 15 个  
**Maximum storage 2 mL plates:** 15 最大板载量: 15 个  
**Maximum storage 4 mL plates:** 12 最大板载量: 12 个  
**Maximum storage 8mL plates:**12 最大板载量: 12 个  
**Maximum storage 20mL plates:**12 最大板载量: 12 个  
**Maximum storage 40mL plates:**9 最大板载量: 9 个  
**Maximum storage 125mL plates:**9 最大板载量: 9 个  
**Maximum storage PDT boxes:**6 最大 PDT 吸头盒放置量: 6 个  
**Maximum storage shallow well plates:**15 最多浅孔板储存量: 15 个

## Deck storage powder source materials 粉末分装瓶子

**Maximum number of SV hoppers:** 24 最大 SV 料斗数

## Facilities requirements 设施要求

### Physical:

**With integrated enclosure:**

### 外壳尺寸

167cmWx91cmDx200cmH~150kg

### Electrical: 电源

85–264V AC, 50–60Hz

### Compressed dry air: 干燥压缩空气

.5MPa to 0.9MPa(70–130psi),16L/min  
(8mmhose)





**UNCHAINED**  
LABS

非链（上海）贸易有限公司  
上海市浦东新区张江路505号601室  
联系电话：021-33780983  
邮箱：[info@unchainedlabs.com](mailto:info@unchainedlabs.com)