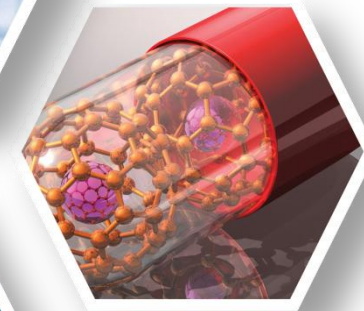
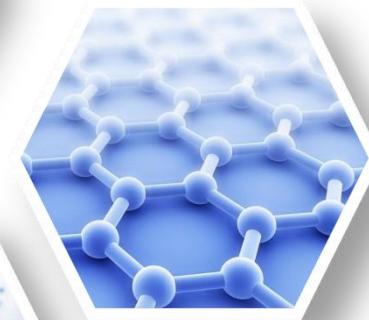
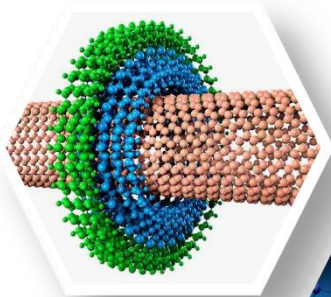




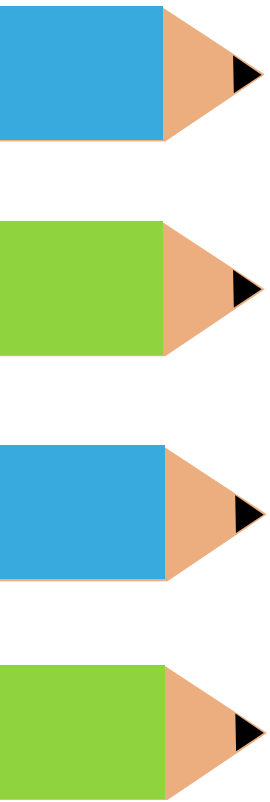
中科彼特（杭州）纳米技术有限公司

CAS PETER (HANGZHOU) NANOTECHNOLOGY CO., LTD



生物纳米制备先进制造商

Advanced Manufacturer Of Biological Nano Equipment



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01

公司简介 COMPANY PROFILE

中科彼特（杭州）纳米技术有限公司与中国科学院杭州先进技术研究院为了促进在智慧医疗和智能制造相关领域的科学研究，推动高新技术经济产业发展，联合建立（中科彼特纳米研究院）共同研发出PT系列纳米制备—高压均质机、热熔挤出机、高速剪切分散机、脂质体挤出系统、石墨烯分散设备、微球制备设备等。

设备广泛地应用于国内各大科研单位及制药企业。行业涉及：生物行业（细胞破壁、蛋白类药物、检测试剂、酶工程、疫苗等），制剂行业（脂肪乳、脂质体、纳米粒、微球等），食品行业（饮料、牛奶、食品添加剂等），化工行业（新能源电池、纳米纤维素、涂料及造纸、高分子材料等）。

CAS PETER (HANGZHOU) NANOTECHNOLOGY CO., LTD is a high-tech enterprise. In order to promote scientific research in the field of smart medicine and intelligent manufacturing and promote the development of high-tech economic industry, we together with the Chinese Academy of Sciences(CAS) and Hangzhou Advanced Technology Institute jointly established the CAS Peter Nanometer Research Institute. And jointly developed the PT series nano preparation: high-pressure homogenizer, hot melt extruder, high-speed shear disperser, Liposome extrusion system, graphene dispersion equipment, microsphere preparation equipment, etc. The equipment is widely used in domestic major scientific research institutions and pharmaceutical enterprises. Application field include: Biological industry (protein drugs, testing reagents, enzyme engineering, human vaccines, veterinary vaccines, etc.), Pharmaceutical industry (fat emulsion, liposomes, nanoparticles, microspheres, etc.), Food industry (beverages, milk, food additives, etc.), Chemical industry (new energy batteries, nano cellulose, coating and papermaking, polymer materials, etc.).



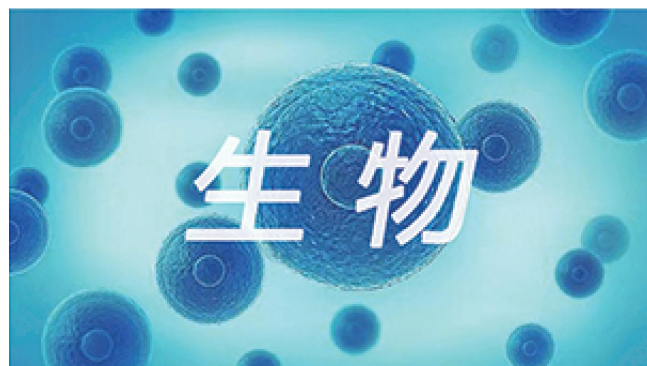
02

应用领域

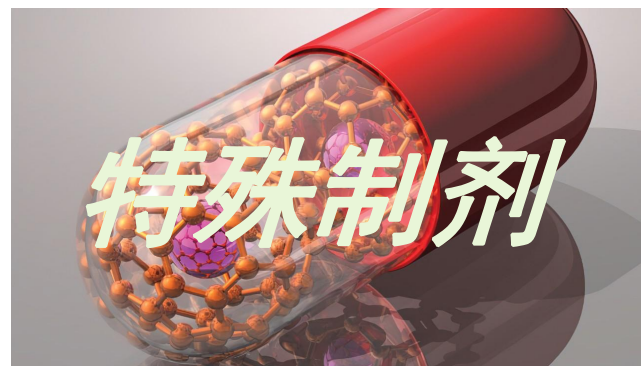
APPLICATION

彼特高压均质机可应用于食品、药品、化妆品等行业的原料制备；脂肪乳、脂质体、纳米混凝液的制备；细胞内物质的提取（细胞破碎）；食品化妆品的均质乳化；以及新能源产品（石墨烯电池导电浆料、太阳能浆料）等领域。

High-pressure homogenizer can be used for raw material preparation in food, medicine, cosmetics and other industries; Preparation of fat emulsion, liposome and nano-coagulant; Extraction of intracellular substances (cell fragmentation); Homogeneous emulsification of food and cosmetics; And new energy products (graphene battery conductive paste, solar paste).



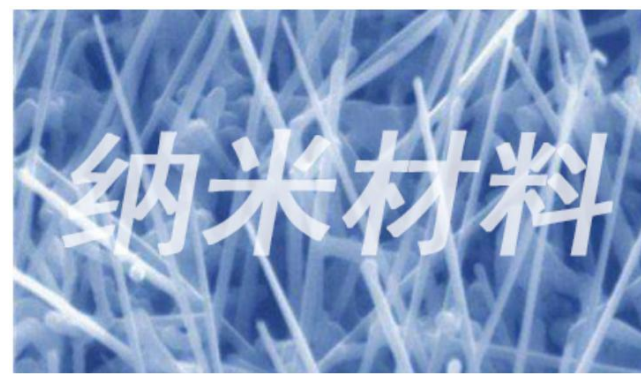
Biology



Special Preparations



Food and Cosmetics



Nanometer Material

03

高压均质机 HIGH PRESSURE HOMOGENIZER



Model: PT-10
(实验型 Experimental type)

应用范围 Application	药物研发、临床研究/GMP、食品工业及化妆品、纳米新材料、生物发酵类、精细化工类、染料涂料类等。 Drug R&D, clinical research/GMP, food industry and cosmetics, nano new materials, biological fermentation, fine chemicals, dyes and coatings, etc.
最大进料颗粒尺寸 Maximum feed particle size	< 500微米 < 500 μ m
流量 Flow	10-15 L/Hour
均质级数 Homogeneous grade	一级 One level
最大工作压力 Maximum working pressure	1750bar (25375psi)
最小处理量 Minimum working capacity	40ml
温度控制 Temperature control	出料温度可控制在10度以内，保证更高的生物活性。 The discharge temperature can be controlled within 10 degrees, ensuring higher biological activity.
马达功率 Power	1.5kw/220V/50hz
产品尺寸 (长宽高) Dimension (L*W*H)	560*445*450mm
破碎率 Crushing rate	大肠杆菌超过98%，酵母菌超过98% Escherichia coli more than 98%, yeast more than 98%!

03

高压均质机

HIGH PRESSURE HOMOGENIZER



Model: PT-20
(实验型 Experimental type)

应用范围 Application	药物研发、临床研究/GMP、食品工业及化妆品、纳米新材料、生物发酵类、精细化工类、染料涂料类等。 Drug R&D, clinical research/GMP, food industry and cosmetics, nano new materials, biological fermentation, fine chemicals, dyes and coatings, etc.
最大进料颗粒尺寸 Maximum feed particle size	< 500微米 < 500μm
流量 Flow	15-20 L/Hour
均质级数 Homogeneous grade	一级 One level
最大工作压力 Maximum working pressure	1700bar (24650psi)
最小处理量 Minimum working capacity	50ml
温度控制 Temperature control	出料温度可控制在10度以内，保证更高的生物活性。 The discharge temperature can be controlled within 10 degrees, ensuring higher biological activity.
马达功率 Power	1.5kw/380V/50hz
产品尺寸（长宽高） Dimension (L*W*H)	560*445*450mm
破碎率 Crushing rate	大肠杆菌超过98%，酵母菌超过98% Escherichia coli more than 98%, yeast more than 98%!

03

生产型均质机

HOMOGENIZER PRODUCTION TYPE



Model: PT-60

应用范围 Application	食品、药品、化妆品等行业的原料制备。脂肪乳、脂质体、纳米混凝液的制备，细胞内物质的提取（细胞破碎）、食品、化妆品的均质乳化，以及新能源产品（石墨烯电池导电浆料、太阳能浆料）等领域。 Raw material preparation for food, medicine, cosmetics and other industries. Preparation of fat emulsion, liposome and nano coagulation. Extraction of intracellular substances (cell breakage), homogenization emulsification of food and cosmetics, and new energy products (graphene battery conductive paste, solar paste), etc.
最大进料尺寸 Feeding particle size	<500um
最小处理量 Minimum processing capacity	500ml
最大压力 Maximum pressure	1500bar(21750psi)
处理速度 Processing speed	20-60L/Hour
温度控制 Temperature control	出料温度可以控制在10°C以内，保证更高的生物活性。 The discharge temperature can be controlled within 10 °C to ensure higher biological activity.
功率 Power	5.5kw/380V/50hz
产品尺寸（长宽高） Dimension (L*W*H)	1200*1100*850

05

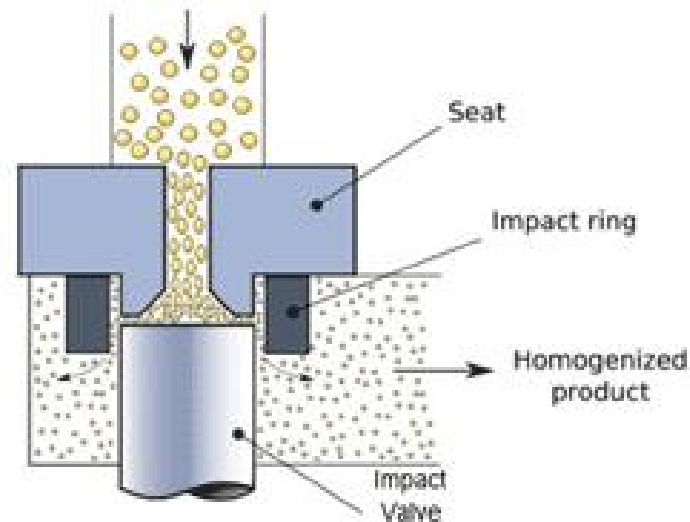
高压均质机

HIGH PRESSURE HOMOGENIZER

原理简介 Working Principle

高压均质机有一个或数个往复运动的柱塞，物料在柱塞作用下进入可调节压力大小的阀组中，经过特定宽度的限流缝隙（工作区）后，瞬间失压的物料以极高的流速（1000-1500米/秒）喷出，碰撞在碰撞阀组件之一的冲击环上，产生三种效应：空穴效应、撞击效应、剪切效应。经过这三种效应处理过后，物料粒径可均匀细化到100nm以下，破碎率大于99%！

The high-pressure homogenizer has one or several reciprocating plungers. Under the action of the plungers, the materials enter the valve group with adjustable pressure. After passing through the flow limiting gap (working area) of a specific width, the materials that lose pressure instantaneously are ejected at a very high flow rate (1000-1500 m/s) and collide with the impact ring of one of the impact valve components, producing three effects: cavitation effect, impact effect and shear effect. After these three effects, the particle size of the material can be uniformly refined to less than 100nm, and the crushing rate is greater than 99%!



03

高压微射流均质机

HIGH PRESSURE MICROJET HOMOGENIZER



Model: PTH-10

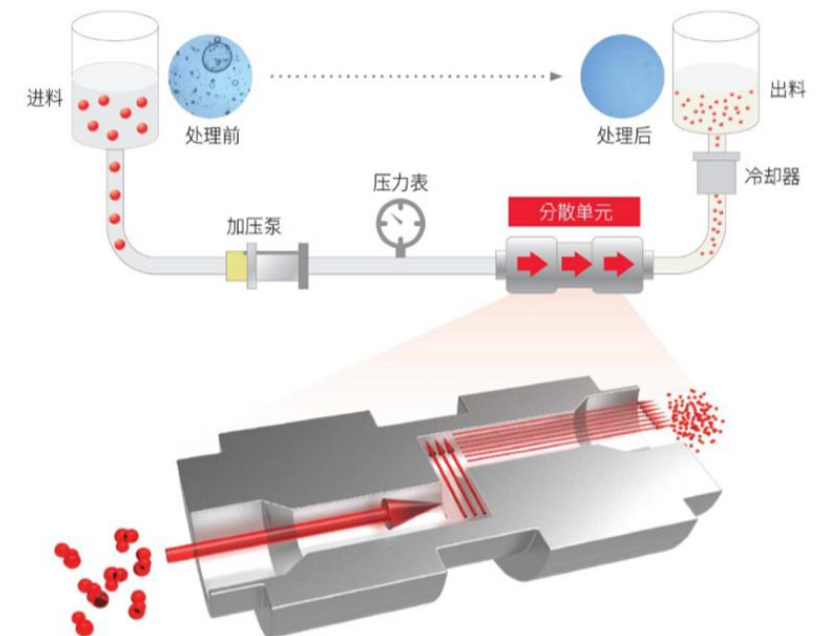
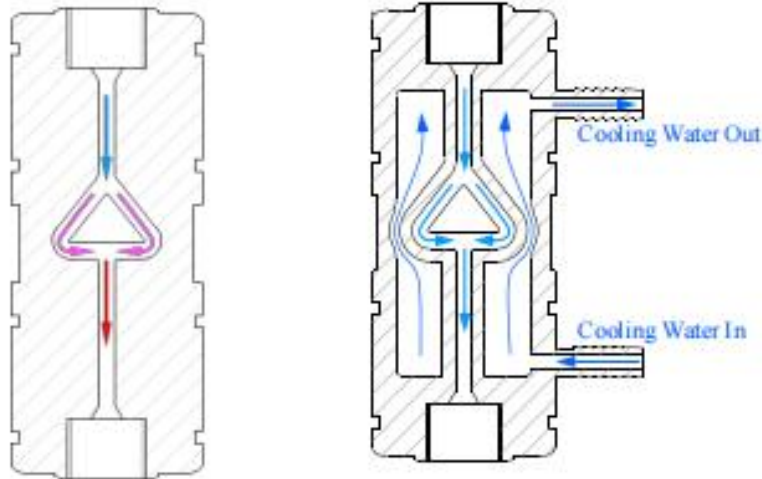
应用范围 Application	食品、药品、化妆品等行业的原料制备。脂肪乳、脂质体、纳米凝胶液的制备，细胞内物质的提取（细胞破碎）、食品、化妆品的均质乳化和，以及新能源产品（石墨烯电池导电浆料、太阳能浆料）等领域。 Raw material preparation for food, medicine, cosmetics and other industries. Preparation of fat emulsion, liposome and nano coagulation. Extraction of intracellular substances (cell breakage), homogenization emulsification of food and cosmetics, and new energy products (graphene battery conductive paste, solar paste), etc.
最大压力 Maximum pressure	2600bar (37000psi)
处理速度 Processing speed	10-15 L/Hour
最小样品量 Minimum material quantity	5ml
残留量 Residual quantity	< 1ml
驱动方式 Drive mode	伺服电机 Servo motor
接触样品材质 Contact material	全镜面，316L，密封材质高分子聚乙烯 Full mirror face, 316L, sealing material is high molecular polyethylene.
控制器 Controller	西门子触控，操作便捷 Siemens touch screen, easy to operate.
功率 Power	1.5kw/380V/50hz
产品尺寸（长宽高） Dimension (L*W*H)	510*385*490mm

原理简介 Working Principle

物料流经单向阀后，在高压腔泵里加压，通过微米级的通道和喷嘴，以亚音速撞击（Z型撞击乳化腔、Y型对撞），同时通过强烈的空穴、剪切效应，得到足够小而均一的粒径分布。并且在保证安全的同时，独特的腔体构造，可以使均质压力达到3000bar，有效解决颗粒的纳米级分散，同时还可以循环均质。

After the material flows through the one-way valve, it is pressurized in the high-pressure chamber pump. Through the micron level channels and nozzles, it impacts at subsonic speed (Z-type impact emulsion chamber, Y-type impact). At the same time, through strong cavitation and shear effects, it can obtain a small and uniform particle size distribution.

While ensuring safety, the unique cavity structure can make the homogenization pressure reach to 3000 bar, effectively solving the nanometer dispersion of particles, and at the same time, it can also circulate homogenization.



03

生产型均质机

HOMOGENIZER PRODUCTION TYPE



Model: PT-500

应用范围 Application	食品、药品、化妆品等行业的原料制备。脂肪乳、脂质体、纳米混凝液的制备，细胞内物质的提取（细胞破碎）、食品、化妆品的均质乳化，以及新能源产品（石墨烯电池导电浆料、太阳能浆料）等领域。 Raw material preparation for food, medicine, cosmetics and other industries. Preparation of fat emulsion, liposome and nano coagulation. Extraction of intracellular substances (cell breakage), homogenization emulsification of food and cosmetics, and new energy products (graphene battery conductive paste, solar paste), etc.
最大进料尺寸 Feeding particle size	<500um
最小处理量 Minimum processing capacity	5 L
最大压力 Maximum pressure	1500bar(21750psi)
处理速度 Processing speed	500L/Hour
温度控制 Temperature control	出料温度可以控制在10°C以内，保证更高的生物活性。 The discharge temperature can be controlled within 10 °C to ensure higher biological activity.
功率 Power	30kw/380V/50hz
产品尺寸（长宽高） Dimension (L*W*H)	1850*1470*1300

03

脂质体挤出器

LIPOSOME EXTRUDER



Model: PU01

工作原理 Working principle	多层样品被强制反复通过带预定孔径的聚碳酸酯过滤器，行成均匀的、粒径更小的50-1000nm的脂质体。 Multiple layers of samples are forced to repeatedly pass through polycarbonate filters with predetermined pore sizes, forming uniform and smaller liposomes with particle sizes of 50-1000nm.
压力 Pressure	0-1000psi
处理量 Processing capacity	2-10mL
工作温度 Working temperature	5-80°C
产品粒径 Product particle size	50-1000nm
滤膜直径规格 Filter membrane diameter	25mm

04

彼特优势

WHY CHOOSE US



专注于均质、乳化、粉碎、分散

Focus On Homogenization, Emulsification, Crushing And Dispersion Process

01

专业的系统团队，强大的技术支持与服务
Professional system team, strong technical support and service.

02

设备外观精巧，人体工学设计
Exquisite appearance and ergonomic design

03

可测试多种少量样品
Can test a variety of small samples

04

无法比拟的粒径减小效率，更窄的粒径分布，适用于多种纳米均质领域。
The incomparable particle size reduction efficiency and narrower particle size distribution are applicable to a variety of nanometer homogeneous fields.

感谢您的聆听

THANK YOU



浙江德盛智能装备科技有限公司

ZHEJIANG DESHENG INTELLIGENT EQUIPMENT TECH. CO., LTD

公司地址：浙江省乐清市经济开发区纬五路222号

Add: No.222 Wei Wu Road, Economic Development Zone, Yueqing City, Zhejiang Province, China. 325600

Tel: +86-0577-61555156

Fax: +86-0577-61555157

Email: ds-zdh@163.com

中科彼特（杭州）纳米技术有限公司

CAS PETER (HANGZHOU) NANOTECHNOLOGY CO., LTD

公司地址：浙江省杭州市钱塘区2号大街501号

Add: No. 501, No. 2 Street, Qiantang District, Hangzhou City, Zhejiang Province, China.

Tel: 0571-86015112

Fax: 0571-86015113

Email: caspeter@163.com

Website: www.caspeter.cn www.caspeter.com

China: +86-135 8777 2229 +86-188 6842 7907

International: +86-151 5771 7628