Newmat Official Website

Wechat Follow Newmat

Create Value for Customers
Create Opportunities for Employees
and Generate Benefits for Society

Suzhou Newmat NanoTechnology Co.,Ltd

Tel：0512-56753277
Email：info@newmatnano.com
Web：www.newmatnano.com
Add：Building 20, Xinlian Advanced Manufacturing Industrial Park, Haiba Road, Daxin Town, Zhangjiagang City

Suzhou Newmat NanoTechnology Co.,Ltd

Advanced Powder Material Solution Provider

Dedicated to providing advanced powder material solutions

Newmat
Empower Every Activate

CONTENTS

01

Company Profile

Suzhou Newmat NanoTechnology Co.,Ltd

Located in Zhangjiagang, Suzhou, our company is an innovative enterprise specializing in the research, development, design, manufacturing, and sales of fluidized bed reactors for small–scale experiments, pilot trials, and industrial applications.

By leveraging fluidization technology, we pioneer innovative approaches to offer superior equipment processes and technologies for silicon–carbon anodes, carbon nanotubes, activated porous carbon, coating modifications of cathode and anode materials, color–changing inks, noble metal coatings, pharmaceutical sustained–release systems, and precision–loaded catalysts. This drives the continuous upgrading of products.

Corporate Mission

Endow Powder Materials with New Value

Corporate Vision

Becoming a World–Class Supplier of Advanced Powder Equipment

Cooperative Key Customers

Client

Silicon-Carbon Anodes Materials

ZhideBattery 致德新能源 · 杉杉股份 Shanshan · IOPSILION · 国轩高科 GOTION HIGH-TECH · BTR · KINGI 金硅

ECH · SHINZOM · 璞泰来 PUTAILAI · KAIJIN 凯金 · HENGTRON 珩创

金龙羽 · XtalPi 晶泰科技 · 犇星 · 协鑫 GCL · DONGDAO 東島

EoLid 索理德科技 · 硅宝 · 银硅科技 Yin Gui Technology · HYCAN · 陡牒集团 · Liton 立探新能源

WANHUA · 瑞富特科技 RUIFUTE TECHNOLOGY · 尚太科技 SHANGTAITECH · 中国五矿 · 联创锂能

Porous Carbon

金龙羽 · 圣泉集团 SQ GROUP · BTR · Liton 立探新能源 · HIWORLD

3D Printing

众山精密

Battery Cells

HUAWEI · 蔚来 NIO · CATL 宁德时代

Universities & Research Institutions

Solid-State Electrolytes

Carbon Nanotubes

ochem · X-Carbon

Patent Certificate

02

Equipment Center

Fluidized Bed Chemical Vapor Deposition Reactor (FB-CVD)

The FB–CVD reactor is one of our company's popular products. In the reactor, the powder material is fluidized by the carrier gas, and then processes such as gas cracking and coating are carried out.

Advantages

- High Mass Transfer Coefficient
- Uniform thermal and flow field
- More uniform coating
- Batch continuous production
- Good sealing performance and high safety
- Integrated explosion–proof design
- Automated control
- Large production capacity
- High production efficiency
- Mature commercial equipment
- Significantly improved stability
- Can discharge materials at high temperatures

Model: FBCVD–10

- Effective Reaction Volume: 1L ≤ Sample Capacity ≤ 3L
- Gas Sources: H_2、Ar、N_2、O_2、CH_4、C_2H_2, etc.
- Operating Temperature: ≤850°C (Higher temperatures can be customized)
- Material Size Requirement: D_{50}≥2μm

Model: FBCVD–20

- Effective Reaction Volume: 5L ≤ Sample Capacity ≤ 8L
- Gas Sources: O_2, N_2, Ar, water vapor, CO_2, CH_4, Silane, C_2H_2, C_3H_6, etc.
- Operating Temperature: ≤850°C (Higher temperatures can be customized)
- Material Size Requirement: D_{50} ≥ 2μm

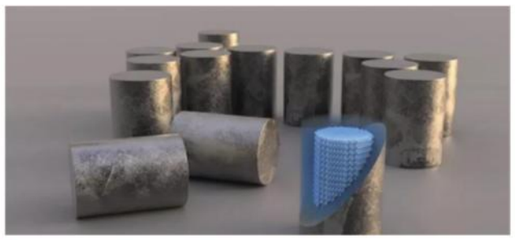
Model: FBCVD–100

- Effective Reaction Volume: 25L ≤ Sample Capacity ≤ 40L
- Gas Sources: O_2, N_2, Ar, water vapor, CO_2, CH_4, Silane, C_2H_2, C_3H_6, etc.
- Operating Temperature: ≤850°C (Higher temperatures can be customized)
- Material Size Requirement: D_{50} ≥ 2μm

Model: FBCVD–500

- Effective Reaction Volume: 125L ≤ Sample Capacity ≤ 200L
- Gas Sources: O_2, N_2, Ar, water vapor, CO_2, CH_4, Silane, C_2H_2, C_3H_6, etc.
- Operating Temperature: ≤850°C (Higher temperatures can be customized)
- Material Size Requirement: D_{50} ≥ 3μm

Applied Industries



Silicon–Carbon Anode

Porous Carbon Activation

Materials Coating

Oxygen–free sintering

Fluidized Bed Spray Nano Coating (FB-SDNC)

The soluble coating materials are dissolved and then sprayed in the liquid phase to coat the materials that are fully fluidized by the carrier gas.

Advantages

- The combination of finer mist droplets and the fluidized bed results in more uniform coating.
- A wider range of coating materials can be selected.
- Industrial-scale fluidized beds can achieve continuous production.
- The equipment is equipped with automated control.

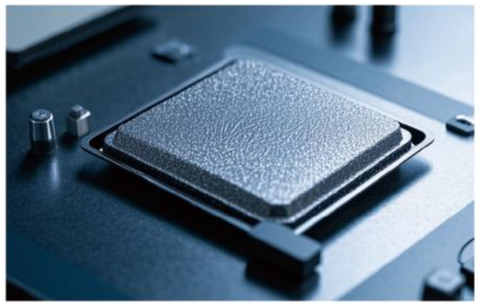
Specifications

Effective Reaction Volume: 3-1000 L	Applicable Powder Materials: Graphite, metal oxides, metallic powders, ceramic powders, etc.
Gas Sources: N_2, Ar, air, etc.	Operating Temperature of the Reaction System: ≤300°C
Material Size Requirement: ≥1 μm	Spray Operation Temperature: Ambient temperature spraying

Applied Industries

▶ Lithium Iron Phosphate (LFP)

▶ NCM/NCA Cathode Coating



▶ Semiconductor Coating

▶ Petroleum Coke Coating

Dual-Bed Fluidized Bed Reaction System for CNT (Carbon Nano Tube) production

This device is a dual–bed fluidized bed reaction system, mainly used for preparing different types of carbon nanotube materials by thermally cracking carbon source gases under the action of oriented catalysts.

Specifications

Effective Reaction Volume:10-10000L, Customized according to requirements
Gas Sources: N_2, Ar, H_2, O_2, CH_4, C_2H_2,
Operating Temperature:≤850℃

Advantages

- High production efficiency and large output
- Excellent physical and chemical properties of products
- Flexible control of product specifications
- Easy to operate and maintain
- Environmentally friendly

Powder Atomic Layer Deposition Equipment (FB-ALD)

Traditional ALD processes are only applicable to the deposition on sheet materials, while FB–ALD can achieve atomic/molecular–level precision coating and deposition on powder materials.

Advantages

- High–precision deposition process
- Adjustable coating thickness
- Suitable for materials with high aspect ratios
- Ultra–uniform coating of powder materials
- A variety of materials can be deposited
- Low reaction temperature
- High–purity coatings
- High degree of automated control

Applied Industries

Coating of Lithium–ion Battery Electrode Materials

Enhancing Catalyst Performance

Aluminum Oxide Coating

Silicon Dioxide Coating

03

Integrated Solutions

Advanced Powder Materials Manufacturing Solutions

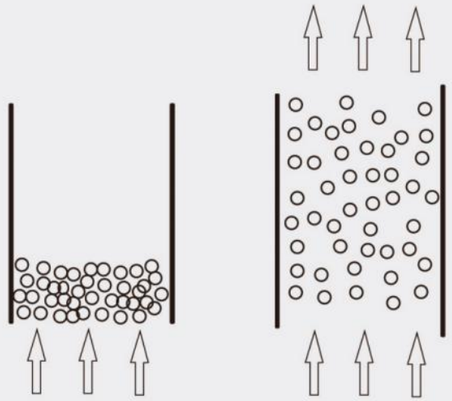


Diagram for Fluidization Technology

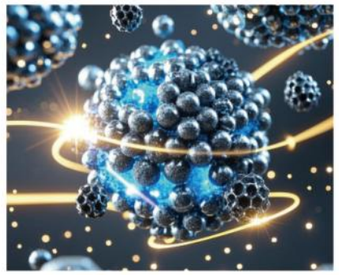
1、Silicon-Carbon Anode Solution

3C Products

Low-Altitude Economy

Electric Vehicles

2、Porous Carbon Activation Solution



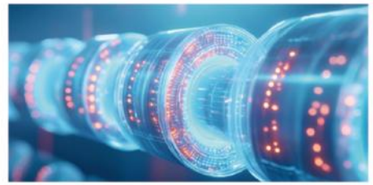
Silicon-Carbon Anode

Biomedical

Catalyst

3、Battery Materials Solution

Lithium-ion Battery Material Manufacturing

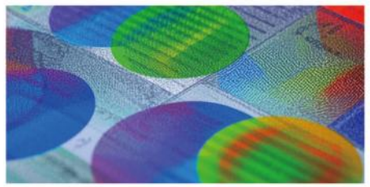


Sodium-ion Battery Material Manufacturing

Solid-state Material Manufacturing

4、Other Material Solutions

3D Printing Material Post-processing



Photochromic Ink Manufacturing

Pearlescent Pigment Manufacturing

5、Customized Equipment Manufacturing Solutions

Technical Consultation

Customized requirements

Equipment Fabrication

Acceptance confirmation

04

Integrated Solutions

Support Service

Technical Training Programs

To ensure that your employees can operate and manage the equipment efficiently, we provide professional training. Through this training, your employees will quickly master the operation skills and maintenance key points of the equipment, achieve efficient operation, reduce problems caused by improper operation, and further improve production efficiency.

Equipment and Process Training

The training content covers the practical operation of equipment and processes, and explains their working principles and operation methods in detail. This practice–oriented training method can ensure that the client's operators are proficient in the operation skills of equipment and processes.

Post-Sales Service

We are committed to providing customers with comprehensive and high–quality after–sales services, ensuring that you can enjoy an excellent service experience before and after purchase.

Pre-Sales Services

Tailor–made exclusive after–sales service plans according to your specific needs.

Rapid Response & Maintenance

2-hour rapid response, spare parts shipped within 4 hours,

Continuous follow-up and maintenance

Our services do not end with product delivery. After the product is delivered, we will manage and maintain the entire product life cycle.

Real–time Accident Monitoring → Emergency Response → Preparation of Manpower, Machinery, Materials, and Protocols

Laboratory

3000 m^2

Laboratory Floor Area

10 Sets

Equipped with experimental and testing facilities.

1800 Times

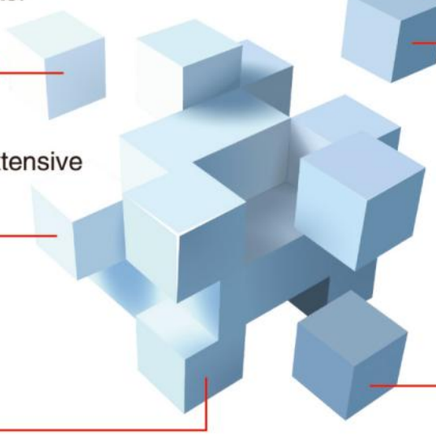
The approximate number of experiments conducted annually is...

In our laboratory, professional testing and optimization processes are carried out in an orderly manner, all aimed at achieving the most cutting–edge scientific research results.

Our laboratory is a place where knowledge, technology, and innovative ideas blend deeply. It is like a lighthouse in the vast ocean of scientific research, illuminating the way for the exploration and development of cutting–edge technologies and bringing reliable and outstanding experimental experiences to every scientific research partner.

Assist in finding the most suitable technical route for projects.

There is a high–quality and profes–sional scientific research team con–sisting of more than 10 members.



Team members have extensive experience and profound academic attainments.

Uphold the scientific research spirit of innova–tion, rigor, and coopera–tion.

It is equipped with an experimental operation area, a precision instrument area, a sample and equipment storage area, etc.

Rapidly respond to experimental requirements.

Provide technical support for experiments.

Carry out the experimental process.

Feed back the experimental results.