



Hunan Jinkun New Material Co. Ltd

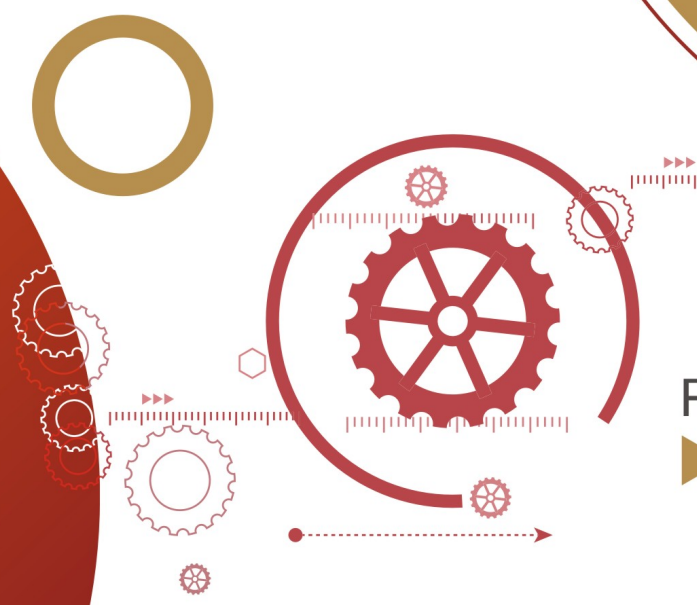
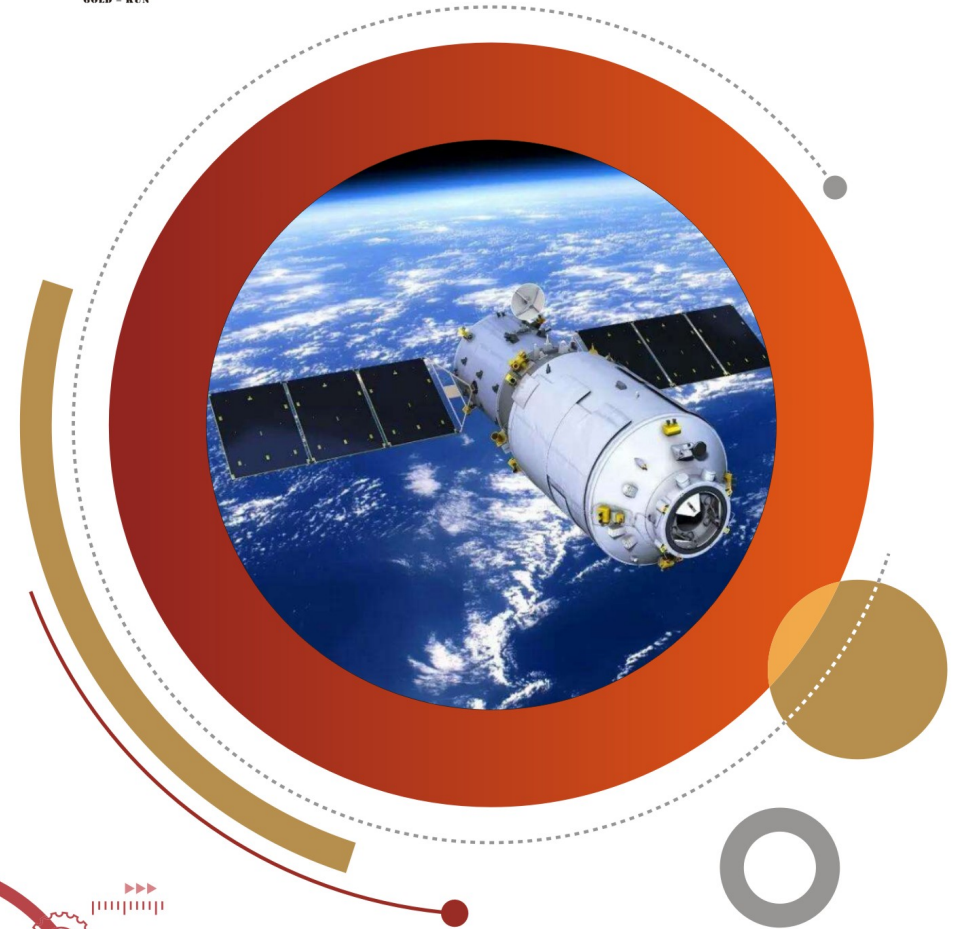
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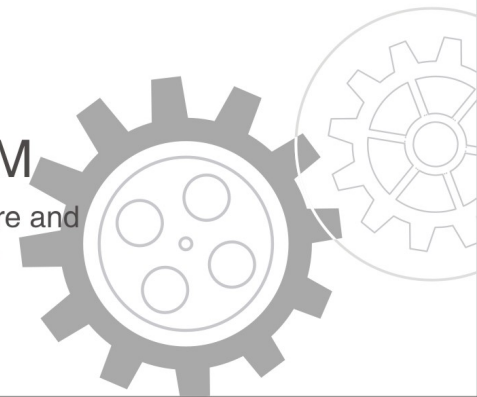
📍 Medium and Small Enterprises Promotion Park,  
Tianyuan district, Zhuzhou, Hunan ,China

🌐 [www.en.hnjxcl.com](http://www.en.hnjxcl.com)



## PRODUCT ALBUM

▶ Specialized in producing rare and precious metals and oxides





## Company Profile

Hunan Jinkun New Materials Co., Ltd. is a national high-tech enterprise and a technology-based small and medium-sized enterprise. The company focuses on the research and development, manufacture, and sales in rare earth scandium related products, as well as rare and precious metal oxides such as rhenium, hafnium, tantalum, rare earth alloys, and target materials.

Since its establishment, the company has obtained more than 10 technology and equipment patents. The company has acquired the "Most Valuable Investment Project" of the Hunan Hongfeng Plan, the "Excellent Award of the 6th Innovation and Entrepreneurship Competition", the Third Prize of "the 5th China Innovation Wing Competition", the "TOP 100 of 2022 Hunan Future Star", and the "Key Enterprise of Hunan Province's Industry Finance Cooperation Manufacturing Industry" in 2022. In 2022, the company passed the ISO quality system certification.

The company has established a new material research and development laboratory with Hunan University of Technology in 2021, and also do the research and manufacture of scandium related products with institutions such as Central South University and Chinese Academy of Sciences. The products sell to the whole country and several overseas countries such as Europe, the United States, and Japan.



## CATALOGUE



**01** Scandium Class

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**02** Gallium Class

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**03** Indium Class

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**04** Rhenium & Germanium

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**05** Tantalum & Hafnium

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**06** Rare Earth Metal Powder

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**07** Company Introduction

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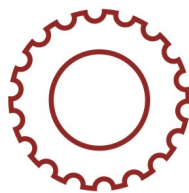




## Scandium Class

## Scandium class

The company focuses on the research and development of rare earth products. Scandium products are the earliest and most comprehensive products developed by our company. After years of development, the company's products have become more multiple including metal scandium, scandium oxide, metal scandium powder, scandium sulfate, scandium fluoride, scandium oxalate, scandium chloride, scandium ammoniate, scandium nitrate, aluminum scandium alloy, magnesium scandium alloy, metal scandium target materials, etc. The company adheres to the principle of "focusing on innovation and striving for excellence", guided by market demand, and committed to technological progress. It strives to forge ahead, continuously innovate, and continuously enrich the research and development and production of scandium.



**Scandium metal**  
Sc

CAS: 7440-20-2  
Purity: 3N, 4N, 5N

Application: Used for manufacturing 5G RF filter chips, aviation engines, spacecraft, medical devices, electronic components, and semiconductor components.



**Scandium oxide**  
Sc<sub>2</sub>O<sub>3</sub>

CAS: 12060-08-1  
Purity: 2N, 3N, 4N, 5N  
REO: ≥95% ~ 99%

Application: Used for electronic industry lasers and superconducting materials, alloy additives, various cathode coating additives, etc.



**Scandium metal powder**  
Sc Powder

CAS: 7440-20-2  
Purity: 3N, 4N  
Specifications: -100 mesh, 300 mesh, etc

Application: Used in ceramics, special glass lasers, nuclear energy, aerospace, electronic industry, lighting, catalysis, nuclear technology, etc.



**Scandium sulfate**  
Sc<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> · 8H<sub>2</sub>O

CAS: 13465-61-7  
Purity: ≥99.9% ~ 99.999%

Application: Used for various semiconductor devices, manufacturing alloys, and special glass for scandium production.



**Scandium fluoride**  
ScF<sub>3</sub>

CAS: 13709-47-2  
Purity: ≥99.9% ~ 99.999%

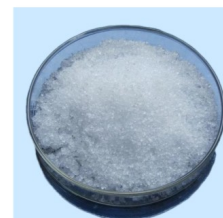
Application: Used in the production of metals, alloys, water treatment agents, corrosives for printing and plate making, oxidants and mordants for the fuel industry, and other salts.



**Scandium oxalate**  
Sc<sub>2</sub>(C<sub>2</sub>O<sub>4</sub>)<sub>3</sub>

CAS: 17926-77-1  
Purity: ≥99.9% ~ 99.999%

Application: Used for manufacturing scandium compound intermediates, chemical reagents, etc.



**Scandium chloride**  
ScCl<sub>3</sub> ScCl<sub>3</sub>·6H<sub>2</sub>O

CAS: 10361-84-9  
Purity: ≥99.9% ~ 99.999%

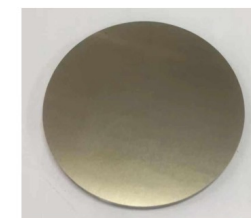
Application: Used as an intermediate in organic reagents and pharmaceuticals, making high melting point alloys, etc.



**Al-Sc Alloy**  
Al-Sc (2% ~ 80%)

CAS: 113413-85-7  
Purity: ≥99.5% ~ 99.95%

Application: Used for aerospace, ship load-bearing structural components, aluminum alloy pipes, railway oil tanks, and high-speed trains key structural components of the vehicle, high-end scandium alloy targets, etc.



**Scandium metal target material**

CAS: 7440-20-2  
Purity: ≥99.9% ~ 99.99%

Application: Used in aerospace, film coating, decoration, sports, flat panel displays, chips, electronics industries, etc.





## Gallium Class

- Gallium metal (Ga) ( Figure 1 ) CAS: 7440-55-3 Purity :  $\geq 99.99\% \sim 99.99999\%$   
Application: Used for preparing compound semiconductors, high-purity alloys, electronic components, as well as doping agents for germanium and silicon single crystals.
- Gallium oxide ( $\text{Ga}_2\text{O}_3$ ) ( Figure 2 ) CAS: 861841-19-2 Purity:  $\geq 99.99\% \sim 99.99999\%$   
Application: Used for high-purity analytical reagents, semiconductor materials in the electronic industry, optoelectronics, optics, and chemistry.
- Gallium chloride ( $\text{GaCl}_3$ ) ( Figure 3 ) CAS: 13450-90-3 Purity:  $\geq 99.99\% \sim 99.9999\%$   
Application: Used as a catalyst for spectral pure reagents and epoxide polymerization.
- Gallium nitride (GaN) ( Figure 4 ) CAS: 25617-97-4 Purity:  $\geq 99.99\% \sim 99.9999\%$   
Application: Used for semiconductor lighting, power electronic devices, lasers, detectors, etc.



Figure 1



Figure 2



Figure 3



Figure 4





## Indium Class



Indium-Oxide  
 $\text{In}_2\text{O}_3$

CAS: 1312-43-2  
Purity:  $\geq 99.99\%$   
~ 99.9999%

Application: Used as compound semiconductors, high-purity alloys, dopants, indium sealing, ITO targets, nuclear radiation safety monitoring, electrical contact components, solder, solar cells, fluorescence screens, glass, ceramics, chemical reagents, etc.



Indium chloride tetrahydrate  
 $\text{InCl}_3 \cdot 4\text{H}_2\text{O}$

CAS: 12672-70-7  
Purity:  $\geq 99.99\%$   
~ 99.9999%

Application: Used for research reagents, electronic materials, ceramic materials, optical materials, biopharmaceuticals, fine chemicals, alloy materials, etc.



Anhydrous Indium Chloride  
 $\text{InCl}_3$

CAS: 10025-82-8  
Purity:  $\geq 99.99\%$   
~ 99.9999%

Application: Used for organic reaction catalysts, ITO transparent electrodes, optical fiber communication fluorescent powder, LED chip production Low pressure sodium lamp, semiconductor electronic lighting mercury free batteries, light stabilizers wool growth promoting agents, etc.



Indium wire

CAS: 7440-74-6  
Purity:  $\geq 99.99\%$   
~ 99.9999%

Application: Used in compound semiconductors, high-purity alloys, dopants, indium sealing, nuclear radiation safety monitoring, electrical contact components, solder, radio and electronic industries, medical, national defense, high-tech, energy, etc.



Indium ball

CAS: 7440-74-6  
Purity:  $\geq 99.99\%$   
~ 99.9999%

Application: Used for conductivity testing materials, welding, and low temperature testing in LED epitaxial grain processing molten alloys, bearing alloys, semiconductors, electric light sources, etc.



Indium Ingot

CAS: 7440-74-6  
Purity:  $\geq 99.99\%$   
~ 99.9999%

Application: Used for producing ITO targets, electronic semiconductors, solder, alloys, indium seals additives, anti fogging equipment, solar cells, mechanical bearings, etc.





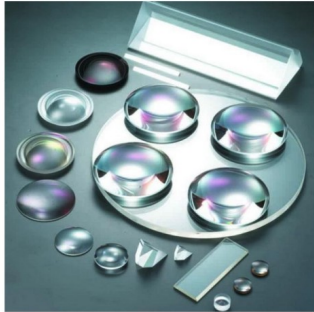


Figure 1



Figure 2



Figure 3



Figure 4

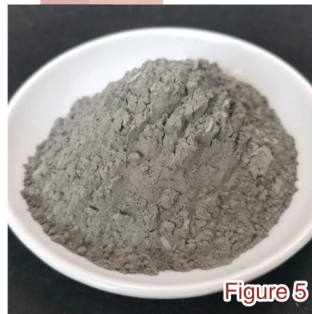


Figure 5

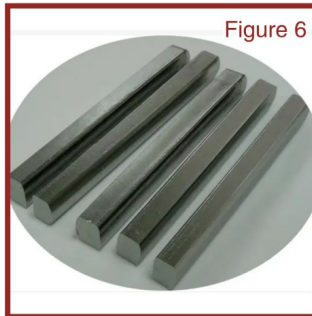
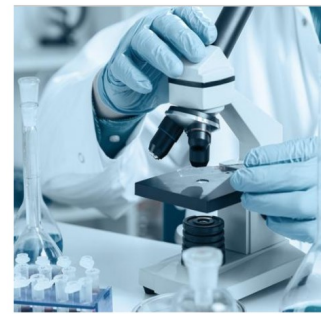


Figure 6



## Rhenium & Germanium

- **Ammonium rhenate** [  $(\text{NH}_4)_2\text{ReO}_4$  ] ( Figure 1 )  
CAS: 13598-65-7 Purity: 4N、5N  
Application: Used as oxidant, catalyst, rhenium alloy, thermocouple, rhenium tungsten wire raw material, etc.
- **Rhenium powder** ( Re ) ( Figure 2 ) CAS: 7440-15-5  
CAS: 7440-15-5 Purity: 4N、5N  
Application: Used for rhenium high-temperature alloy additives, rocket engines, satellite engine surface spraying, atomic energy reaction materials, thermoelectric ionization mass spectrometry, spraying powder, rhenium products such as rhenium particles, rhenium strips, rhenium plates, rhenium rods, rhenium foils and rhenium wires as basic materials.
- **Rhenium** ( Re ) ( Figure 3 ) CAS: 7440-15-5  
Purity: 4N、5N Specifications:  $\Phi 14\text{H}15$ ;  $\Phi 16\text{H}14$   
Application: Used as a super alloy additive, commonly used in the manufacturing of modern high-speed aircraft engine components Parent alloys, as well as aerospace equipment components, and other ultra-high temperature fields.
- **Germanium oxide** (  $\text{GeO}_2$  ) ( Figure 4 )  
CAS: 1310-53-8 Purity:  $\geq 99.99\% \sim 99.9999\%$   
Application: Used for semiconductor, aerospace measurement and control, nuclear physics detection fiber optic communication, infrared light learning, solar cells, chemical catalysts, biomedicine, etc.
- **Germanium powder** ( Ge ) ( Figure 5 )  
CAS: 7440-56-4 Purity:  $\geq 99.99\% \sim 99.9999\%$   
Application: Used in semiconductors, aerospace measurement and control, solar cells, transistors, rectifiers, infrared optics, fluorescent panels, radiation detectors, thermoelectric materials, chemical catalysts, biomedicine, etc.
- **Germanium ingot** ( Ge ) ( Figure 6 )  
CAS: 7440-56-4 Purity: 4N、5N、6N、7N  
Application: For semiconductor, aerospace measurement and control, nuclear physics detection, fiber optic communication, infrared optics, solar cells, chemical catalysts, biomedicine, etc.



## Tantalum & Hafnium

Tantalum (Ta) is the king of corrosion resistance among base metals, while hafnium (Hf) ranks second in corrosion resistance among base metals. Ta can be used to manufacture evaporative vessels, as well as electrodes, rectifiers, and electrolytic capacitors for electronic tubes. It can also make thin sheets or threads to repair damaged tissues in medical industry. Hf is highly alkali resistance in all the material. The application fields of hafnium mainly involve electronic equipment, atomic energy materials, alloy materials, high-temperature resistant materials, etc. Our company has sufficient inventory of tantalum and hafnium raw materials. We welcome new and old customers to inquire.



Tantalum oxide  
 $Ta_2O_5$

CAS: 1314-61-0  
Purity: 3N、4N

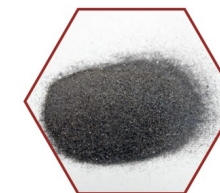
Application: Used in the electronic industry, optical glass, catalysts, etc.



Tantalum chloride  
 $TaCl_5$

CAS: 7721-01-9  
Purity: 3N、4N

Application: Used as a chlorinating agent for organic compounds, chemical intermediates, and in the preparation of tantalum.



Tantalum  
Ta

CAS: 7440-25-7  
Purity: 3N、3N5

Application: Used in military equipment and high-tech fields, such as missiles, space vehicles, televisions, electronic computers, etc.



Hafnium oxide  
 $HfO_2$

CAS: 12055-23-1  
Purity: 3N5、4N

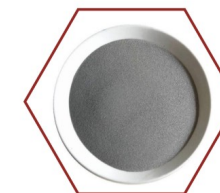
Application: Used for spectral analysis and catalyst systems, refractory materials, etc.



Hafnium chloride  
 $HfCl_4$

CAS: 13499-05-3  
Purity: 3N5、4N

Application: Used for various specific purposes, mainly concentrated in materials science, or as a catalyst.



Hafnium powder  
Hf

CAS: 7440-58-6  
Purity: 2N、2N5、3N、3N5

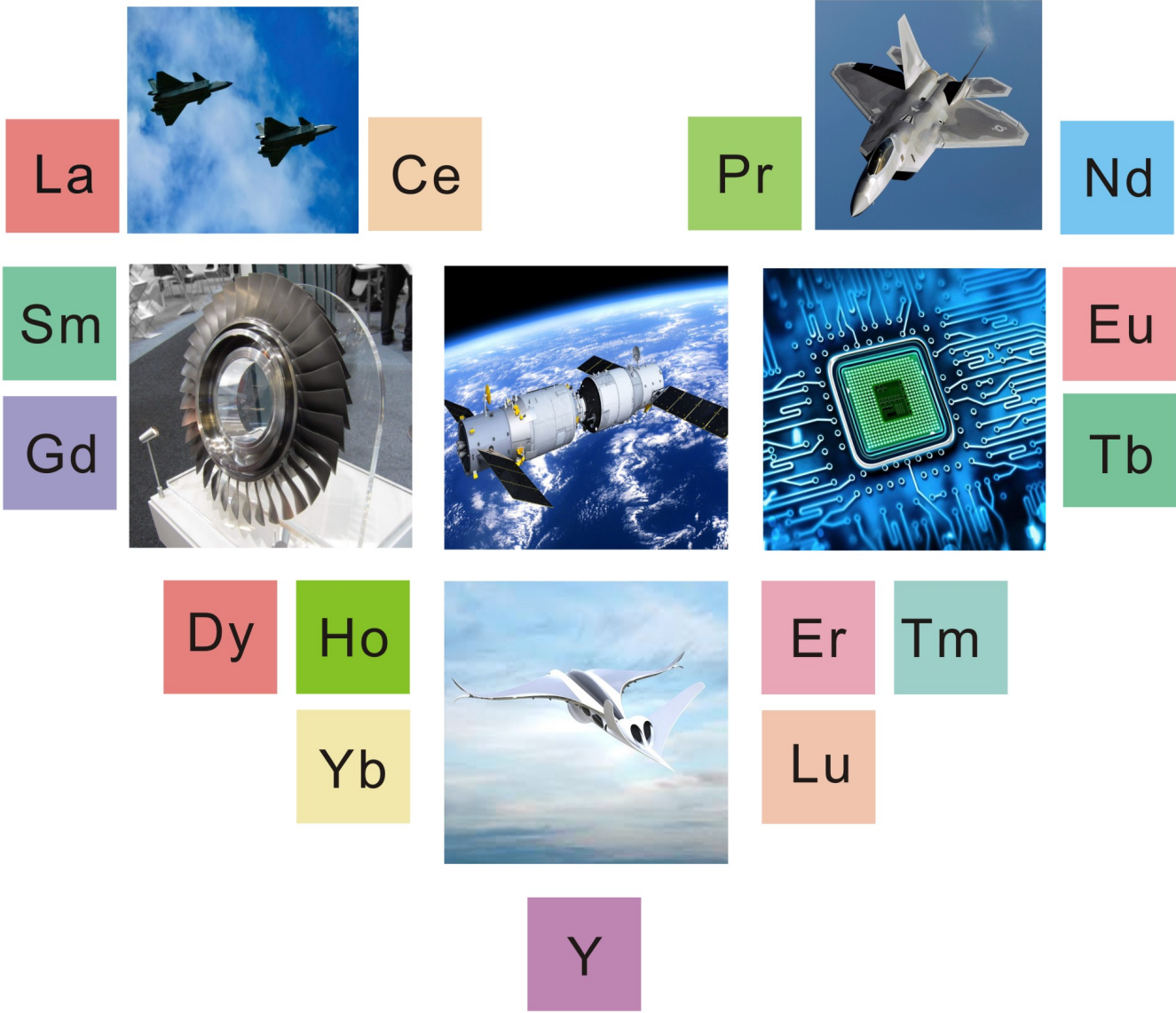
Application: Used for tungsten hafnium alloy filament, atomic energy industry, rocket thrusters, nano processors, hard alloy additives, hydraulic oil.





## Rare Earth Metal Powder

The company has set up a key laboratory for rare earth materials, with a total of 13 laboratory teams, including two doctor supervisors from the Chinese Academy of Sciences and Central South University. In addition to promethium (Pm), the laboratory has carried out in-depth research on scandium, and applied research and production quantification of 15 other rare earth products, including lanthanum powder (La), cerium powder (Ce), praseodymium powder (Pr), neodymium powder (Nd), samarium powder (Sm), europium powder (Eu), gadolinium powder (Gd), terbium powder (Tb), dysprosium powder (Dy), holmium powder (Ho), erbium powder (Er), Thulium powder (Tm), ytterbium powder (Yb), lutetium powder (Lu), yttrium powder (Y), etc. Welcome new and old customers to inquire.

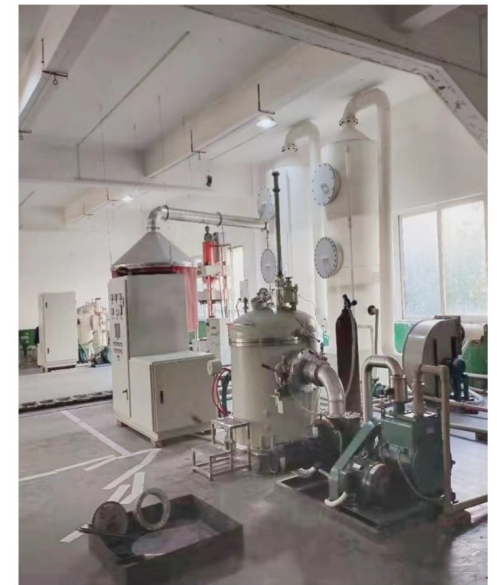


Note: All products can be packaged according to customer's specific requirements, such as reagent bottles/transparent bags/tin foil bags/plastic barrels/wooden barrels.





Factories sights



Through multiple technological advancements, the company has formed a unique range of high-quality and low-cost products. At present, 2 invention patents and 8 utility model patents have been authorized. In addition, 11 invention patents and 17 utility model patents are currently in the telegraph.

