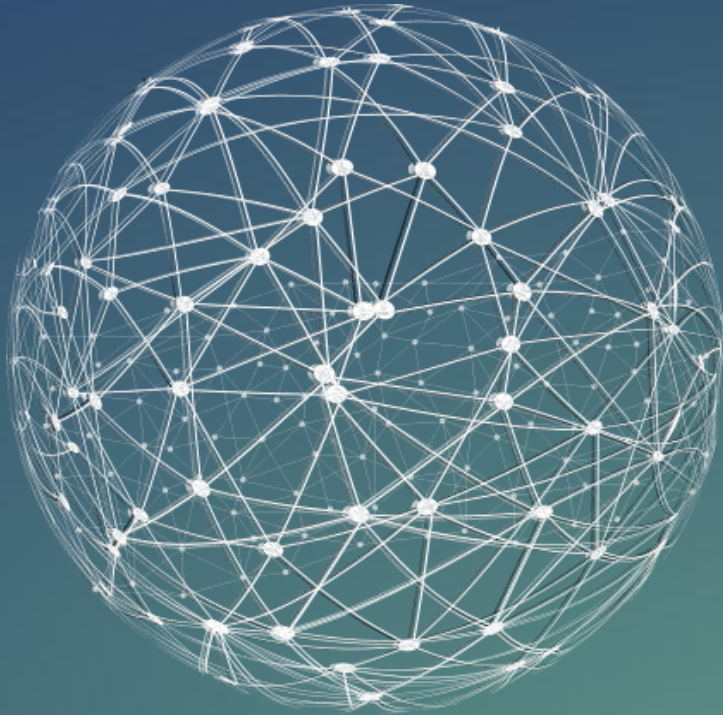




# UltraPurMat Group Co., Ltd

**ULPMAT**



# Company Profile



## UltraPurMat Group Co., Ltd

UltraPurMat Group Co., Ltd (ULPMAT) specializes in high-purity film deposition materials and advanced inorganic powders. As an integrated R&D, manufacturing, and sales company, we focus on continuous innovation in the advanced materials field, supported by a professional technical team and a complete production-service system.

Our core business includes deposition coating materials (pure metal, alloy, ceramic sputtering targets, and evaporation materials) and inorganic compound powders (high-purity metals, rare earths, chalcogenides, halides, nitrides, borides, silicides, etc.). Serving industries such as semiconductors, aerospace, electronics, and new energy, ULPMAT collaborates with top universities and institutes, offering joint labs, expert partnerships, and customized solutions to meet evolving customer needs.

01

➤ **Thin Film Coating Materials Unit**

**Sputtering Targets, Evaporation materials, Bonding service**

**High Purity, 99.5%~99.9999%, Customized**

**Factory Location: Shaanxi, Baoji**

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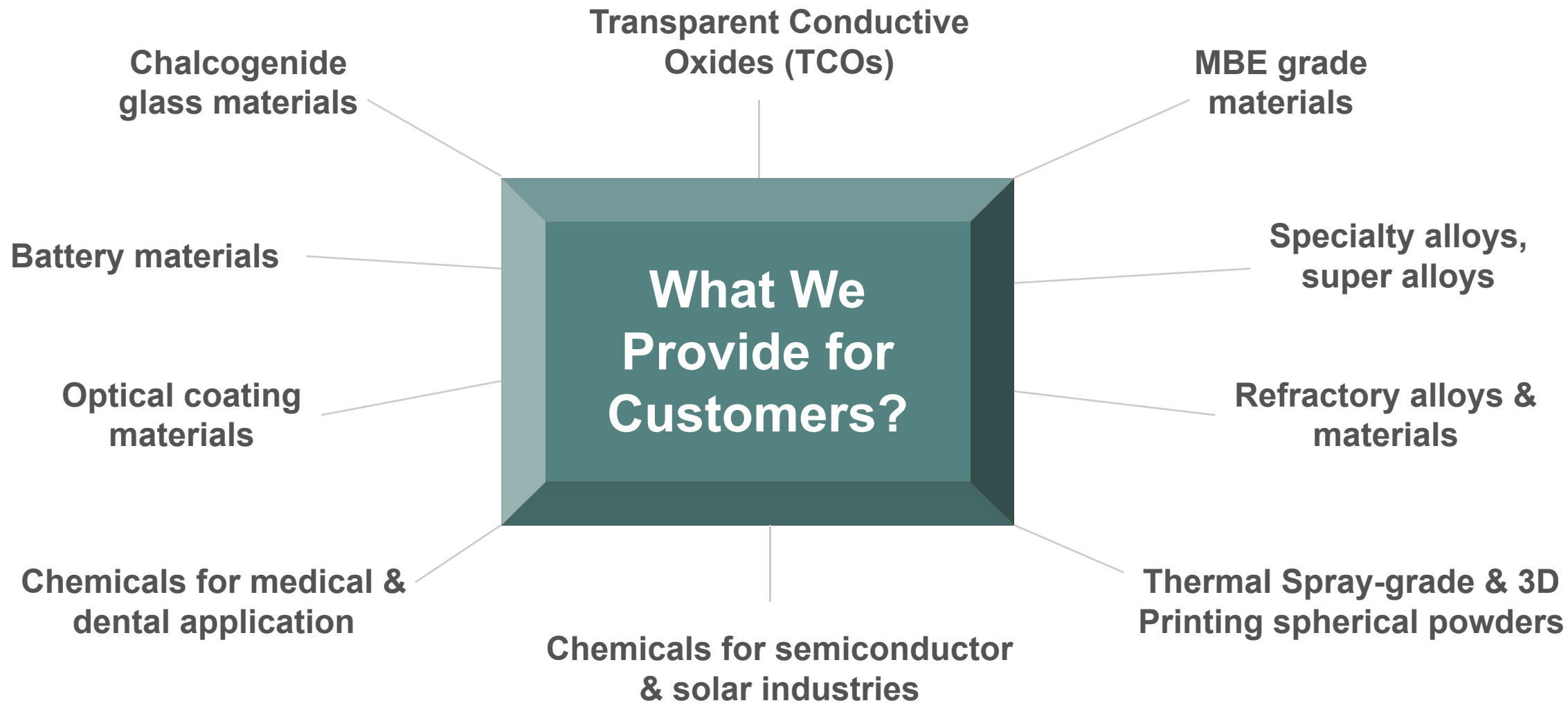
➤ **Inorganic Compound Materials Unit**

**Chalcogenide material, Rare earth materials, Halides, Nano powder, C/N/B/Si compound materials, Crystal materials**

**High Purity, 99.5%~99.9999%, Powder, Pellets, Crystalline**

**Factory Location: Sichuan, Suining**

## What we do?



# Sputtering Targets

## ➤ Pure Metal Sputtering Targets

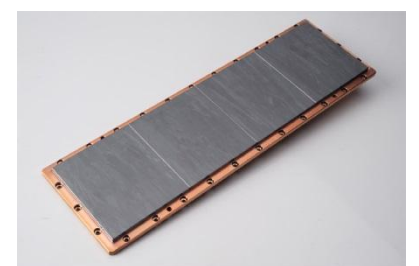
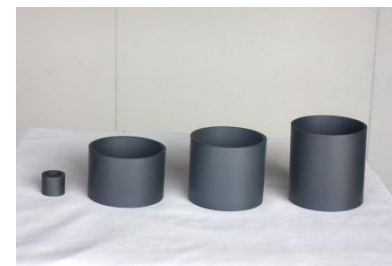
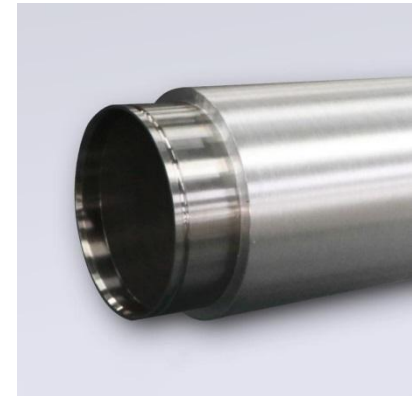
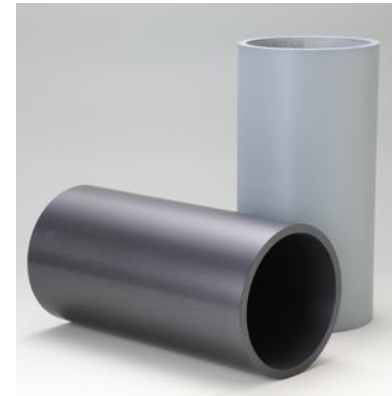
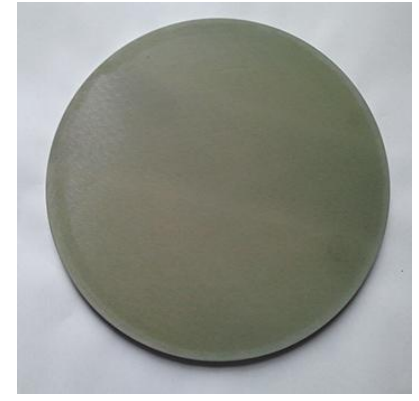
Ag, Al, B, C, Co, Cr, Cu, Fe, Ge, Hf, In, Ir, Mg, Mn, Mo, Nb, Ni, Re, Se, Si, Sn, Ta, Ti, V, W, Zn, Zr...

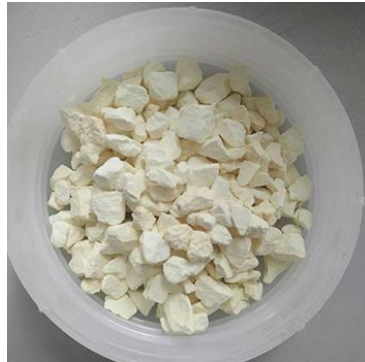
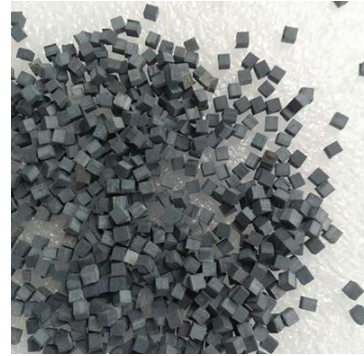
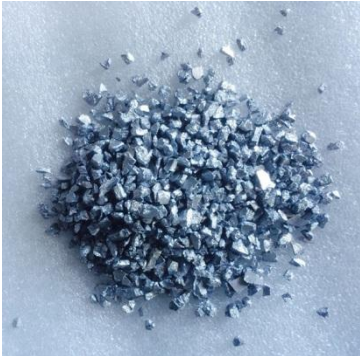
## ➤ Metal Alloy Sputtering Targets

AlCr, AlCrB, AlCu, AlNd, AlSi, AlTi, CrSiAl, CuCrZr, CuNi, CuTi, CuZr, FeNi, FeNiCr, InSn, IrMn, MoNb, MoTa, MoW, NbTi, NbZr, NiCr, NiCrAl, NiCuTi, NiFe, NiV, PdAg, PdNi, SiCr, SiGe, TiSi, TiTa, VTi, WTa, WTi, ZnAl, NbTiZrMo, CoCrFeNi, FeCrMoNiB, CrMoTaTiVW, AlCoCrCuNiFe, TiTaZrHfW, TiZrCrMo...

## ➤ Ceramic Sputtering Targets

Al<sub>2</sub>O<sub>3</sub>, AlON, AZO, AZTO, BaTiO<sub>3</sub>, BiFeO<sub>3</sub>, BiVO<sub>4</sub>, FTO, IGZO, In<sub>2</sub>O<sub>3</sub>, ITO, KNbO<sub>3</sub>, Nb<sub>2</sub>O<sub>5</sub>, HfO<sub>2</sub>, Mg<sub>2</sub>SiO<sub>4</sub>, MoS<sub>2</sub>, MoSe<sub>2</sub>, MoS<sub>2</sub>-Sb<sub>2</sub>O<sub>3</sub>, MoSi<sub>2</sub>, NiCr<sub>2</sub>O<sub>4</sub>, PZT, Sb<sub>2</sub>O<sub>5</sub>, Si<sub>3</sub>N<sub>4</sub>, SrNbO<sub>3</sub>, SrTiO<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub>, TiG, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, WO<sub>3</sub>, WC, VN, Y<sub>2</sub>O<sub>3</sub>, YBCO, ZrO<sub>2</sub>, ZITS, ZnO, ZnO:MgO, ZnS...





## Evaporation Materials

### ➤ Pure Metal

Ag, Al, Au, C, Co, Cr, Cu, Hf, In, Li, Mg, Mn, Mo, Nb, Ni, Pd, Pt, Re, Se, Si, Sn, Ta, Ti, V, W, Zr...

### ➤ Oxides

Al<sub>2</sub>O<sub>3</sub>, CaO, CeO<sub>2</sub>, Co<sub>3</sub>O<sub>4</sub>, Cr<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, HfO<sub>2</sub>, ITO, MgO, Nb<sub>2</sub>O<sub>5</sub>, SiO, SiO<sub>2</sub>, SnO<sub>2</sub>, SrO, Ti<sub>3</sub>O<sub>5</sub>, Ta<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, TiO<sub>2</sub>/ZnO, WO<sub>3</sub>, ZnO, ZrO<sub>2</sub>, YAG...

### ➤ Other Evaporation Materials

Cr<sub>3</sub>C<sub>2</sub>, FeB, Nb<sub>4</sub>AlC<sub>3</sub>, SiC, Ti<sub>3</sub>AlC<sub>2</sub>, TiC, Ti<sub>3</sub>SiC<sub>2</sub>, Cd<sub>3</sub>Sb<sub>2</sub>, Ag<sub>2</sub>Se, Al<sub>2</sub>Se<sub>3</sub>, As<sub>2</sub>S<sub>3</sub>, FeS<sub>2</sub>, Ga<sub>2</sub>S<sub>3</sub>, Ga<sub>2</sub>Te<sub>3</sub>, GeS, GeSe<sub>2</sub>, HfS<sub>2</sub>, HfSe<sub>2</sub>, HgTe, In<sub>2</sub>S<sub>3</sub>, PbSe, PbTe, ZnS, ZnSe, BaF<sub>2</sub>, CaF<sub>2</sub>, BiI<sub>3</sub>, CeF<sub>3</sub>, CuI, GeI<sub>2</sub>, InF<sub>3</sub>, LiF, MgF<sub>2</sub>, TbBr<sub>3</sub>, TlI<sub>3</sub>, YF<sub>3</sub>...

Ultra-high Purity Materials

| PRODUCT NAME | FORMULA | PURITY | SPECIFICATION        |
|--------------|---------|--------|----------------------|
| Tellurium    | Te      | 7N     | Lumps, Granules      |
| Cadmium      | Cd      | 7N     | Lumps, Granules      |
| Indium       | In      | 7N     | Lumps, Granules      |
| Gallium      | Ga      | 7N     | Lumps, Granules, Rod |
| Antimony     | Sb      | 7N     | Lumps, Granules, Rod |
| Arsenic      | As      | 7N     | Lumps, Granules, Rod |
| Scandium     | Sc      | 5N     | Lumps, Granules      |
| Aluminum     | Al      | 6N5    | Lumps, Granules, Rod |
| Zinc         | Zn      | 7N     | Lumps, Granules, Rod |
| Selenium     | Se      | 6N     | Lumps, Granules      |
| Bismuth      | Bi      | 6N     | Lumps, Granules      |
| Tin          | Sn      | 7N     | Lumps, Granules, Rod |

\*Purity from 5N to 7N5, offer customization



# Lithium ion Battery Materials

Advanced anode and cathode materials.

- High energy Density
- Low self-discharge Rate



- GeS
- GeS<sub>2</sub>
- SiS<sub>2</sub>
- LaAlO<sub>3</sub>
- LaCrO<sub>3</sub>
- LaNiO<sub>3</sub>
- La<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub>
- La-BaSnO<sub>3</sub>
- (La<sub>0.3</sub>Sr<sub>0.7</sub>)MnO<sub>3</sub>
- (La<sub>0.8</sub>Sr<sub>0.2</sub>)<sub>0.98</sub>MnO<sub>3-x</sub>
- LaFe(x)Al(1-x)O<sub>3</sub>; x=0.2
- LaMn(x)Al(1-x)O<sub>3</sub>; x=0.2
- LaNi(x)Al(1-x)O<sub>3</sub>; x=0.2
- LaV(x)Al(1-x)O<sub>3</sub>; x=0.2
- LLZO (Li<sub>7</sub>La<sub>3</sub>Zr<sub>2</sub>O<sub>12</sub>)
- LSAT ( (La,Sr)(Al,Ta)O<sub>3</sub>

- Li<sub>3</sub>PS<sub>4</sub>
- Li<sub>6</sub>PS<sub>5</sub>Cl
- Li<sub>6</sub>PS<sub>5</sub>Br
- Li<sub>6</sub>PS<sub>5</sub>I
- Li<sub>10</sub>GeP<sub>2</sub>S<sub>12</sub>Cl
- Li<sub>2</sub>SiO<sub>3</sub>
- Li<sub>2</sub>ZrO<sub>3</sub>
- Li<sub>3</sub>PO<sub>4</sub>
- Li<sub>4</sub>SiO<sub>4</sub>
- Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub>
- LiNbO<sub>3</sub>
- LiAlO<sub>2</sub>
- LiNO<sub>3</sub>
- LiTaO<sub>3</sub>
- LiCoO<sub>2</sub>

- Li<sub>2</sub>S
- LiOH
- LiOH·xH<sub>2</sub>O
- LiCoPO<sub>4</sub>
- LiFePO<sub>4</sub>
- LiMn<sub>2</sub>O<sub>4</sub>
- LiMnPO<sub>4</sub>
- LiNiPO<sub>4</sub>
- LiTi<sub>2</sub>(PO<sub>4</sub>)<sub>3</sub>
- LiTiAl(PO<sub>4</sub>)<sub>3</sub>
- LiNiCoAlO<sub>2</sub>
- LiNiMnCoO<sub>2</sub>
- Li<sub>3</sub>V<sub>2</sub>(PO<sub>4</sub>)<sub>3</sub>
- LiAlGe(PO<sub>4</sub>)<sub>3</sub>
- LiNi<sub>0.8</sub>Co<sub>0.2</sub>O<sub>2</sub>
- Li<sub>3.5</sub>Si<sub>0.5</sub>P<sub>0.5</sub>O<sub>4</sub>



## Chalcogenide Materials

- Attractive optical and electrical properties
- As a new generation of light absorption materials candidate materials

### Sulfides

- Ag<sub>2</sub>S
- As<sub>2</sub>S<sub>3</sub>
- CdS
- Ce<sub>2</sub>S<sub>3</sub>
- CoS<sub>2</sub>
- Cu<sub>2</sub>S
- FeS
- FeS<sub>2</sub>
- Ga<sub>2</sub>S<sub>3</sub>
- GeS
- HfS<sub>2</sub>
- In<sub>2</sub>S<sub>3</sub>
- MoS<sub>2</sub>
- Mo<sub>6</sub>S<sub>8</sub>
- SnS<sub>2</sub>
- TaS<sub>2</sub>
- V<sub>5</sub>S<sub>8</sub>
- ZITS
- ZnS
- ZrS<sub>2</sub>

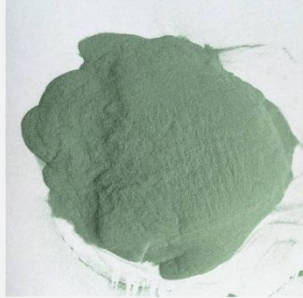
### Selenides

- Ag<sub>2</sub>Se
- Al<sub>2</sub>Se<sub>3</sub>
- BiTeSe
- CaSe
- CdSe
- EuSe
- GeSe<sub>2</sub>
- HfSe<sub>2</sub>
- Li<sub>2</sub>Se
- MoSe<sub>2</sub>
- NbSe<sub>2</sub>
- PbSe
- SnSe
- SnSe<sub>2</sub>
- WSe<sub>2</sub>
- ZnSe

### Tellurides

- Bi<sub>2</sub>Te<sub>3</sub>
- BiSbTe
- CdTe
- Ga<sub>2</sub>Te<sub>3</sub>
- GeSbTe
- Li<sub>2</sub>Te
- MoTe<sub>2</sub>
- PbTe
- SnTe
- WTe<sub>2</sub>
- ZnTe

# Carbides/Nitrides/Borides/Silicides Compound Materials



## Carbide Materials

$\text{Al}_4\text{C}_3$ ,  $\text{B}_4\text{C}$ , C,  $\text{Cr}_3\text{C}_2$ , HfC,  $\text{Mn}_{23}\text{C}_6$ ,  $\text{Mo}_2\text{C}$ , MoC,  
NbC, SiC, TaC, WC, VC, TiC, ZrC



## Nitride Materials

$\text{AlN}$ , BN,  $\text{Ca}_3\text{N}_2$ , CrN, FeN, InN,  $\text{Mg}_3\text{N}_2$ , HfN, NbN,  
 $\text{Si}_3\text{N}_4$ , TaN, TiN, VN, ZrN



## Boride Materials

$\text{AlB}_2$ , B,  $\text{CaB}_6$ ,  $\text{CeB}_6$ , FeB,  $\text{CrB}_2$ , HfB<sub>2</sub>,  $\text{LaB}_6$ ,  $\text{MgB}_2$ ,  
MnB, MoB,  $\text{SiB}_6$ ,  $\text{SmB}_6$ , TaB<sub>2</sub>, TiB<sub>2</sub>, ZrB<sub>2</sub>



## Silicide Materials

$\text{MoSi}_2$ , HfSi<sub>2</sub>, TaSi<sub>2</sub>, ZrSi<sub>2</sub>, WSi<sub>2</sub>, TiSi<sub>2</sub>,  $\text{Mg}_2\text{Si}$ ,  
CoSi<sub>2</sub>, FeSi<sub>2</sub>, CrSi<sub>2</sub>, VSi<sub>2</sub>

# Halide Materials

- Ultra-High Purity, up to 99.999%
- Unique spectral characteristics for luminescent materials
- Custom ampoulation available, Under argon atmosphere

## FLUORIDES

BaF2  
CaF2  
CeF3  
CsF  
ErF3  
GdF3  
MgF2  
LiF  
NaF  
AlF3  
InF3  
TiF4  
PbF2  
SmF3  
SrF2  
YbF3  
YF3  
ZnF2

## CHLORIDES

CeCl3  
DyCl3  
ErCl3  
GdCl3  
NbCl5  
LaCl3  
LiCl  
NdCl3  
WCl6  
NiCl2  
HfCl4  
TaCl5  
CsCl  
NaCl  
MoCl5  
PbCl2  
PrCl3  
SiCl4  
YbCl3  
SnCl4

## BROMIDES

CeBr3  
KBr  
PbBr2  
SnBr4  
TbBr3  
ZnBr2

## IODIDES

CuI  
AlI3  
GeI2  
BiI3  
PbI2  
TeI4  
CsI  
SnI4  
CaI2-4H2O



## Rare Earth Materials

- High Purity, Comprehensive(Multiple elements)
- Excellent magnetic, optical and electrical properties
- Used for metallurgy, military, petrochemical, glass ceramics, agriculture, new materials

**Pure Metal:** La, Ce, Nd, Sm, Eu, Gd, Tb, Dy, Er, Tm, Yb, Y, Sc, Lu

**Oxides:**  $\text{Y}_2\text{O}_3$ ,  $\text{CeO}_2$ ,  $\text{Ce}(\text{OH})_4$ ,  $\text{Eu}_2\text{O}_3$ ,  $\text{Lu}_2\text{O}_3$ ,  $\text{Sm}_2\text{O}_3$ ,  $\text{Sc}_2\text{O}_3$ ,  $\text{Pr}_6\text{O}_{11}$ ,  $\text{Tm}_2\text{O}_3$ ,  $\text{Nd}_2\text{O}_3$ ,  $\text{La}_2\text{O}_3$ ,  $\text{Ho}_2\text{O}_3$ ,  $\text{Er}_2\text{O}_3$ ,  $\text{Tb}_4\text{O}_7$ ,  $\text{Yb}_2\text{O}_3$ ,  $\text{Dy}_2\text{O}_3$ ,  $\text{Gd}_2\text{O}_3$ ... **Halides:**  $\text{CeBr}_3$ ,  $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$ ,  $\text{DyCl}_3$ ,  $\text{EuCl}_3 \cdot 6\text{H}_2\text{O}$ ,  $\text{GdF}_3$ ,  $\text{LaCl}_3 \cdot 7\text{H}_2\text{O}$ ,  $\text{TbBr}_3$ ,  $\text{TmCl}_3$ ,  $\text{YbCl}_3 \cdot 6\text{H}_2\text{O}$ ,  $\text{YbF}_3$ ,  $\text{YF}_3$ ,  $\text{YCl}_3$ ,  $\text{GdCl}_3$ ,  $\text{PrCl}_3$ ,  $\text{SmCl}_3$ ,  $\text{NdCl}_3$ ,  $\text{ErCl}_3$ ...

**Salts:**  $\text{Gd}(\text{NO}_3)_3 \cdot x\text{H}_2\text{O}$ ,  $\text{Y}_2(\text{CO}_3)_3 \cdot x\text{H}_2\text{O}$ ,  $\text{LaAlO}_3$ ,  $\text{DyScO}_3$ ,  $\text{Eu}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$ ,  $\text{GdScO}_3$ ,  $\text{LaCrO}_3$ ,  $\text{Lu}(\text{AC})_3 \cdot 4\text{H}_2\text{O}$ ,  $\text{Sc}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$ ,  $\text{YVO}_4$ ,  $\text{YIG}$ ,  $\text{Y}_3\text{Al}_5\text{O}_{12}$ ...

**Alloy:**  $\text{SmCo}_5$ ,  $\text{AlSc}$ ,  $\text{CeGd}$ ,  $\text{CeSm}$ ,  $\text{CrY}$ ,  $\text{MoLa}$ ,  $\text{MgY}$ ,  $\text{LaNi}_5$ ,  $\text{YNiAl}$ ,  $\text{ZrY}$ ,  $\text{Er}_3\text{Ni}$ ,  $\text{SmMn}_2\text{Ge}_2$ ,  $\text{La}_{0.95}\text{Ce}_{0.05}\text{Si}_2$ ...



## Nano Powders

- 20-800nm, 99.0%~99.9%
- Process: Gas-Phase: CVD, LCVD;  
Liquid-Phase: SOL-GEL, hydrothermal synthesis, co-precipitation

**Nano Metal:** Si, Ag, Ni, Co, Sn, W, Mo, Fe, Al, Ti, Cr, Ta, In, Bi, Zn, Cu

**Nano Alloy:** CuSn, CuNi, CuZn, SnBi, FeNi, AlSi

**Nano Oxides:** Al<sub>2</sub>O<sub>3</sub>, ZnO, TiO<sub>2</sub>, ZrO<sub>2</sub>, CuO, Fe<sub>2</sub>O<sub>3</sub>, Fe<sub>3</sub>O<sub>4</sub>, SnO<sub>2</sub>, NiO, ITO, ATO, MgO, MoO<sub>3</sub>, Nb<sub>2</sub>O<sub>5</sub>...

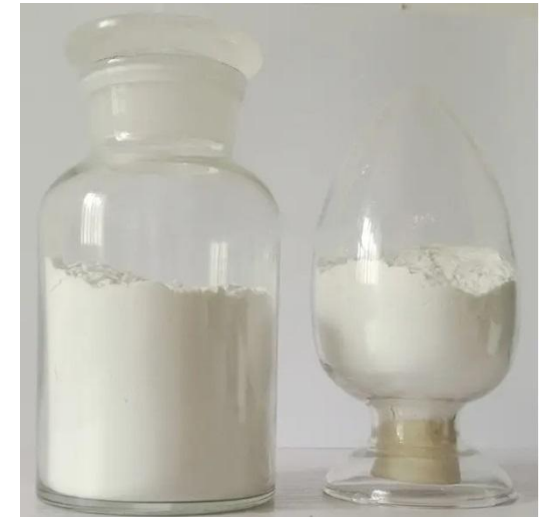
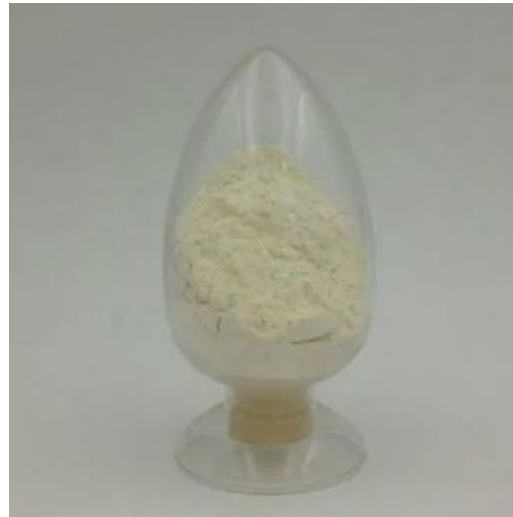
**Nano Carbides:** SiC, TiC, Cr<sub>3</sub>C<sub>2</sub>, B<sub>4</sub>C, ZrC, TaC, Mo<sub>2</sub>C, NbC, WC...

**Nano Nitrides:** AlN, BN, Si<sub>3</sub>N<sub>4</sub>, TiN, VN, CrN, ZrN...

**Nano Borides:** ZrB<sub>2</sub>, TiB<sub>2</sub>, LaB<sub>6</sub>, HfB<sub>2</sub>, B

**Nano Sulfides:** MoS<sub>2</sub>, WS<sub>2</sub>

**Nano Silicides:** TaSi<sub>2</sub>, HfSi<sub>2</sub>, MoSi<sub>2</sub>, ZrSi<sub>2</sub>



## 3D Printing Spherical Powders

- No satellite powder
- Good flowability
- High sphericity
- High purity and Vibration density
- Uniformity of chemical composition

**Titanium-Base Alloy Spherical Powder:** GR1(Ti), GR5(Ti-6Al-4V), GR5(high Tenacity) (Ti-4Al-2V), Ti-6.5Al-3.5Mo-1.5Zr-0.3Si, GR6(Ti-5Al-2.5Sn), Ti-8Al-1Mo-1V, Ti-6.5Al-1Mo-1V-2Zr, Ti47Al2Cr2Nb, TiAlNb ...

**Nickel-Base Alloy Spherical Powder :** Hastelloy Alloy X(Ni-Mo-Cr-Fe), HastelloyC276(Ni-Mo-Cr-Fe-W), Hastelloy188(Co-Ni-Cr-W), Inconel 625(0Cr20Ni65Mo10Nb4), Inconel718(Ni-Cr-Fe-Nb-Mo) ...

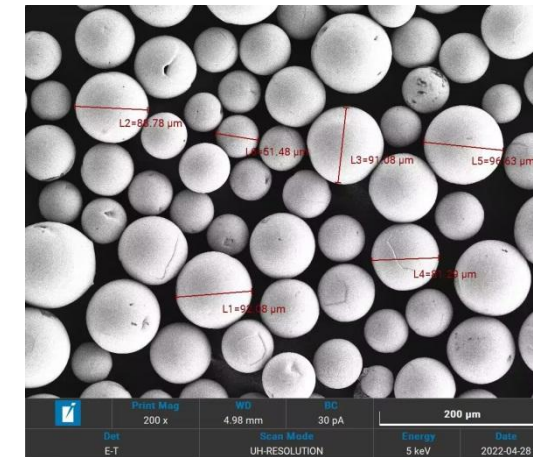
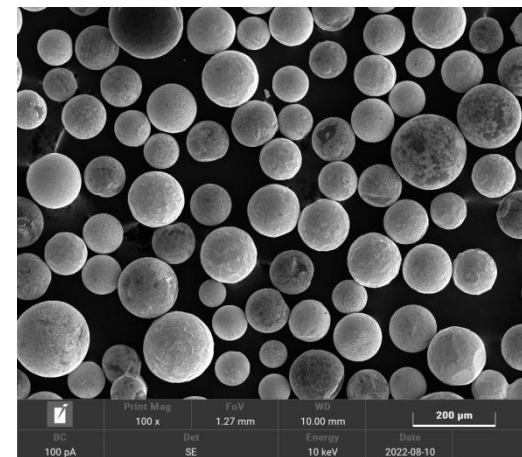
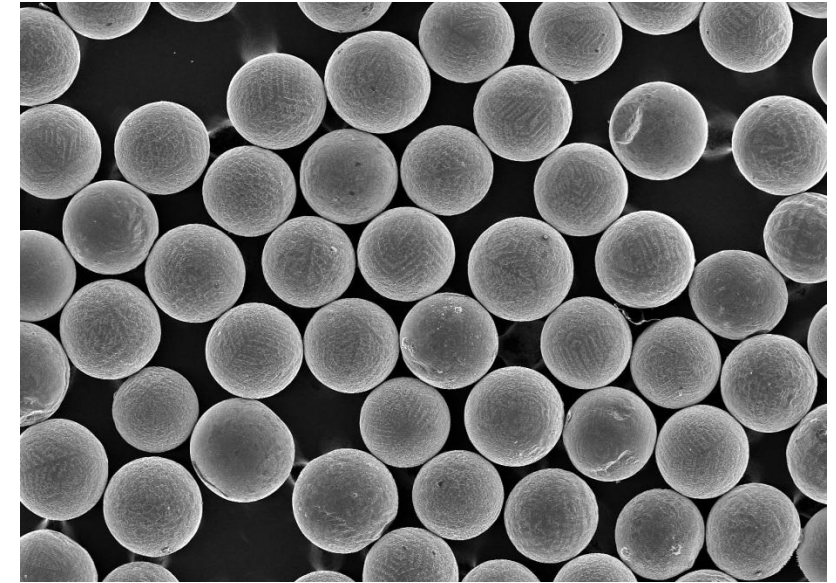
**Aluminum-Base Alloy Spherical Powder :** A14130(AlSi12), AlSi9Cu3, AlMg4.5Mn0.4, A03560(AlSi7Mg), A03600(AlSi10Mg), 2024(AlCuMnMgCrZn), 7075(AlZnMgCu1.5) ...

**Stainless steel Spherical Powder:** 17-4PH, 17-7PH, 304L, 316L, 410S, H13 Die steel, 420 Die steel ...

**Cobalt-Base Alloy Spherical Powder :** Stellite21(Co-Cr-Mo), Stellite6(Co-Cr-W), Stellite12(Co-Cr-W-Fe), CoCrMoW ...

**Copper-Base Alloy Spherical Powder :** CuFe, CuCr, CuCrZr ...

**Customized Alloy Spherical Powder:** FeCoNiCrMn, NiAl, NiTi50, Nb521 ...





# Corporate Vision

ULPMAT aspire to become the leading  
Supplier of Advanced Chemical Materials  
for the Semiconductors, photovoltaics,  
solar energy industries



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