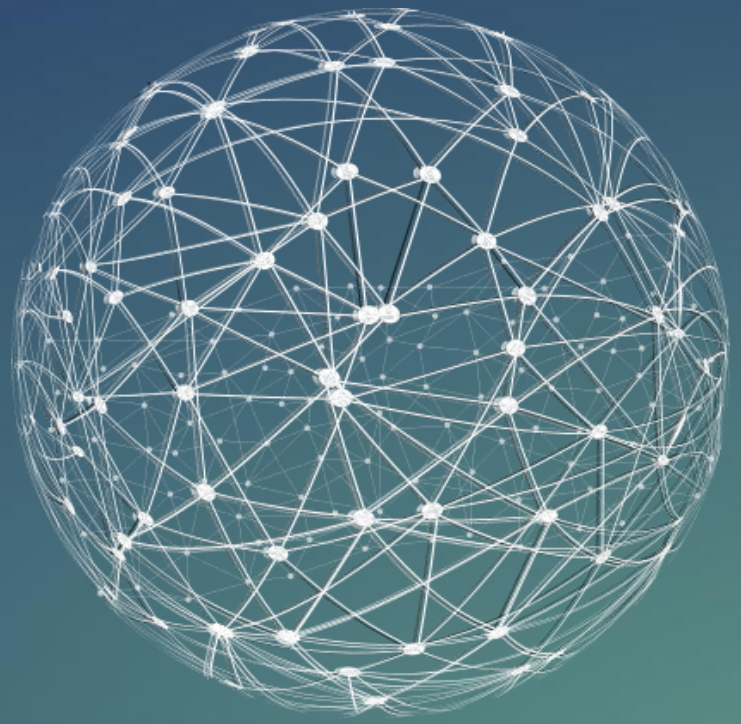
UltraPurMat Group Co., Ltd

ULPMAT

Website: www.ulpmat.com



Company Profile

Website: www.ulpmat.com

About Us

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

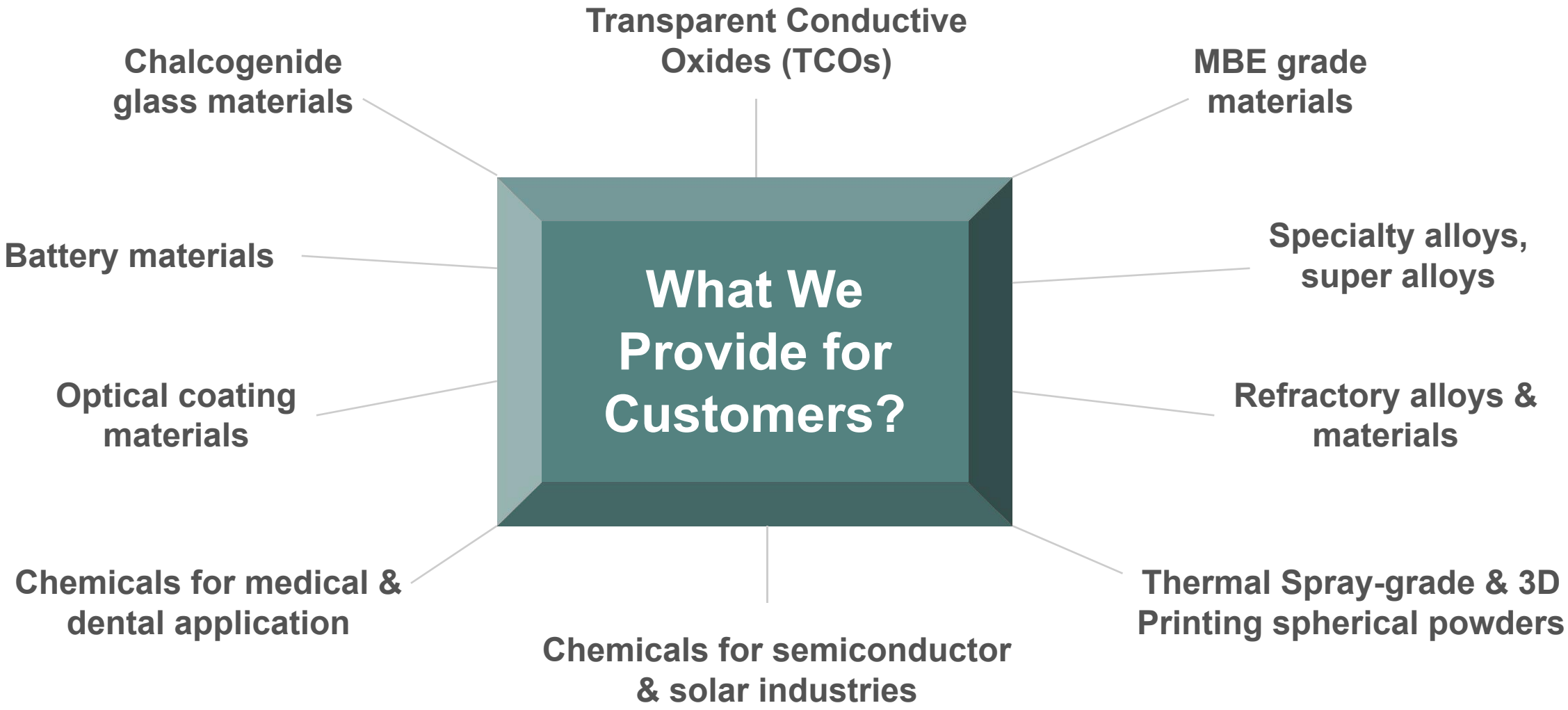
02

➢ 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

What we do?


What We Provide for Customers?
Transparent Conductive Oxides (TCOs)
Chalcogenide glass materials
MBE grade materials
Battery materials
Specialty alloys, super alloys
Optical coating materials
Refractory alloys & materials
Chemicals for medical & dental application
Chemicals for semiconductor & solar industries
Thermal Spray-grade & 3D Printing spherical powders

Sputtering Targets

➢ Pure Metal Sputtering Targets

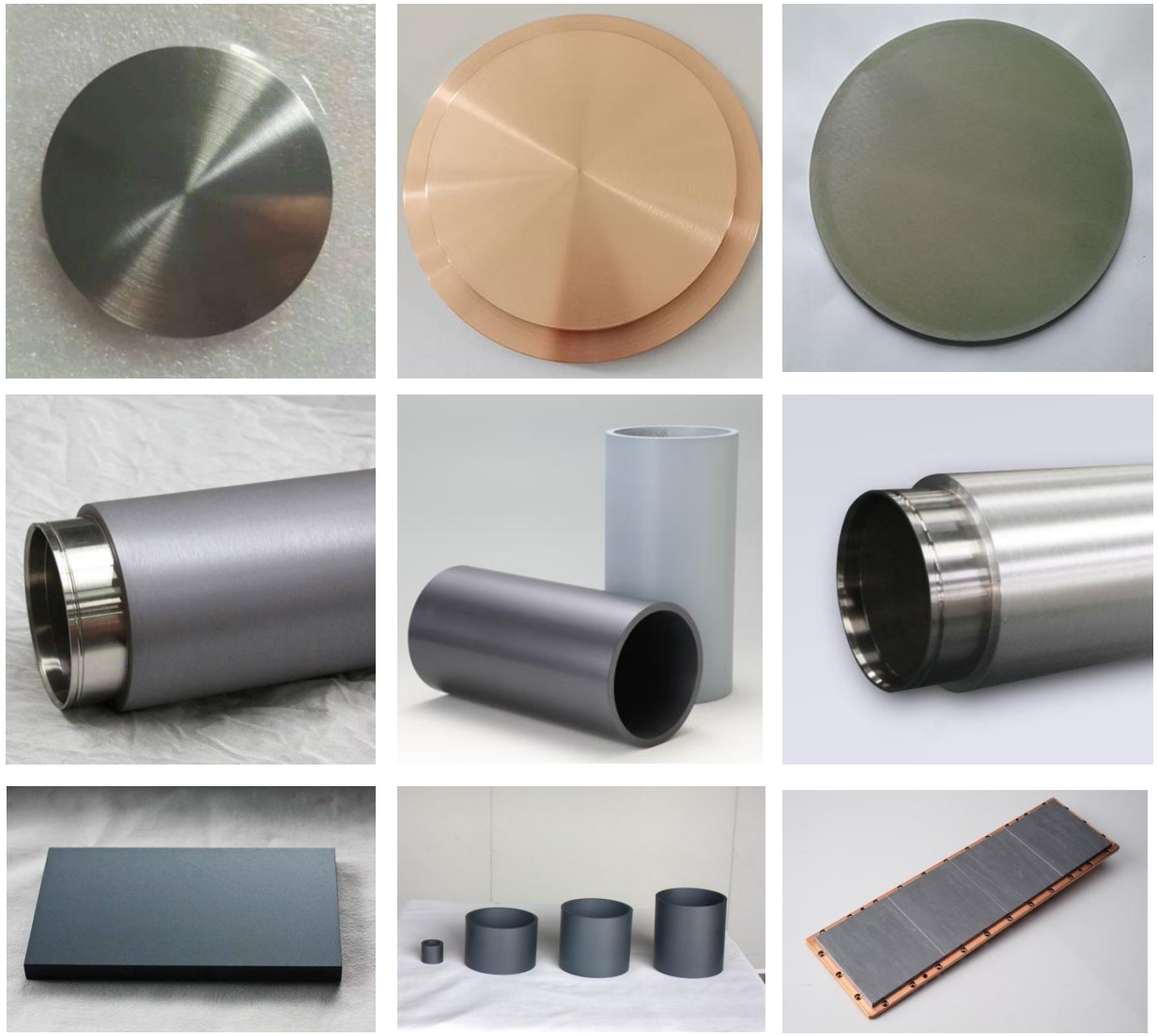
Ag, Al, B, C, Co, Cr, Cu, Fe Ge, Hf, In, Ir, Mg, Mn, Mo, Nb, Ni, Re, Se, Si, Sn, Ta, Ti, V, W, Zn, Zr…

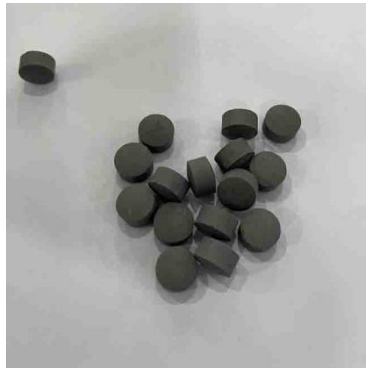
➢ Metal Alloy Sputtering Targets

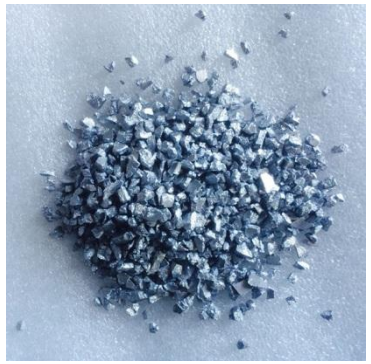
AlCr, AlCrB, AlCu, AlNd, AlSi, AlTi, CrSiAl, CuCrZr, CuNi, CuTi, CuZr, FeNi, FeNiCr, InSn, IrMn, MoNb, MoTa, MoW, NbTi, NbZr, NiCr, NiCrAl, NiCuTi, NiFe, NiV, PdAg, PdNi, SiCr, SiGe, TiSi, TiTa, VTi, WTa, WTi, ZnAl, NbTiZrMo, CoCrFeNi, FeCrMoNiB, CrMoTaTiVW, AlCoCrCuNiFe, TiTaZrHfW, TiZrCrMo…

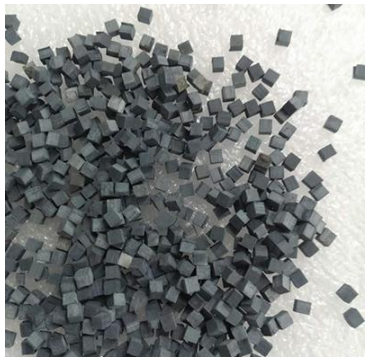
➢ Ceramic Sputtering Targets

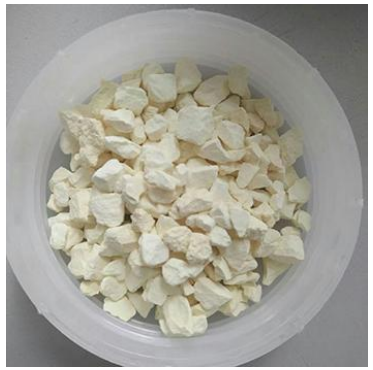
Al2O3, AlON, AZO, AZTO, BaTiO3, BiFeO3, BiVO4, FTO, IGZO , In2O3, ITO, KNbO3, Nb2O5, HfO2, Mg2SiO4, MoS2, MoSe2, MoS2-Sb2O3, MoSi2, NiCr2O4, PZT, Sb2O5, Si3N4, SrNbO3, SrTiO3, Ta2O5, TIG, TiO2, V2O5, WO3, WC, VN, Y2O3, YBCO, ZrO2, ZITS, ZnO, ZnO:MgO, ZnS...










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_2O_3, CaO, CeO_2, Co_3O_4, Cr_2O_3, Fe_2O_3, HfO_2, ITO, MgO, Nb_2O_5, SiO, SiO_2, SnO_2, SrO, Ti_3O_5, Ta_2O_5, TiO_2, TiO_2/ZnO, WO_3, ZnO, ZrO_2, YAG…

- **Other Evaporation Materials**

Cr_3C_2, FeB, Nb_4AlC_3, SiC, Ti_3AlC_2, TiC, Ti_3SiC_2, Cd_3Sb_2, Ag_2Se, Al_2Se_3, As_2S_3, FeS_2, Ga_2S_3, Ga_2Te_3, GeS, $GeSe_2$, HfS_2, $HfSe_2$, HgTe, In_2S_3, PbSe, PbTe, ZnS, ZnSe, BaF_2, CaF_2, BiI_3, CeF_3, CuI, GeI_2, InF_3, LiF, MgF_2, $TbBr_3$, TbI_3, YF_3…

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
- GeS2
- SiS2
- LaAlO3
- LaCrO3
- LaNiO3
- La2Zr2O7
- La-BaSnO3
- (La0.3Sr0.7)MnO3
- (La0.8Sr0.2)0.98MnO3-x
- LaFe(x)Al(1-x)O3;x=0.2
- LaMn(x)Al(1-x)O3;x=0.2
- LaNi(x)Al(1-x)O3;x=0.2
- LaV(x)Al(1-x)O3;x=0.2
- LLZO (Li7La3Zr2O12)
- LSAT ((La,Sr)(Al,Ta)O3

- Li3PS4
- Li6PS5Cl
- Li6PS5Br
- Li6PS5I
- Li10GeP2S12Cl
- Li2SiO3
- Li2ZrO3
- Li3PO4
- Li4SiO4
- Li4Ti5O12
- LiNbO3
- LiAlO2
- LiNO3
- LiTaO3
- LiCoO2

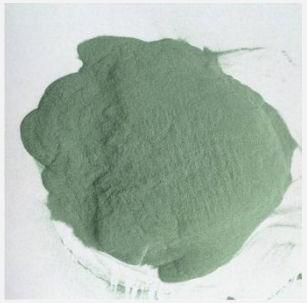
- Li2S
- LiOH
- LiOH·xH2O
- LiCoPO4
- LiFePO4
- LiMn2O4
- LiMnPO4
- LiNiPO4
- LiTi2(PO4)3
- LiTiAl(PO4)3
- LiNiCoAlO2
- LiNiMnCoO2
- Li3V2(PO4)3
- LiAlGe(PO4)3
- LiNi0.8Co0.2O2
- Li3.5Si0.5P0.5O4

Chalcogenide Materials

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

Sulfides		Selenides	Tellurides
• Ag2S	• SnS2	• Ag2Se	• Bi2Te3
• As2S3	• TaS2	• Al2Se3	• BiSbTe
• CdS	• V5S8	• BiTeSe	• CdTe
• Ce2S3	• ZITS	• CaSe	• Ga2Te3
• CoS2	• ZnS	• CdSe	• GeSbTe
• Cu2S	• ZrS2	• EuSe	• Li2Te
• FeS	• TiS2	• GeSe2	• MoTe2
• FeS2	• SiS2	• HfSe2	• PbTe
• Ga2S3	• Li2S	• Li2Se	• SnTe
• GeS	• GeS2	• MoSe2	• WTe2
• HfS2		• NbSe2	• ZnTe
• In2S3		• PbSe	
• MoS2		• SnSe	
• Mo6S8		• SnSe2	
		• WSe2	
		• ZnSe	

Carbides/Nitrides/Borides/Silicides Compound Materials



Carbide Materials

Al4C3, B4C, C, Cr3C2, HfC, Mn23C6, Mo2C, MoC,
NbC, SiC, TaC, WC, VC, TiC, ZrC



Nitride Materials

AlN, BN, Ca3N2, CrN, FeN, InN, Mg3N2, HfN, NbN,
Si3N4, TaN, TiN, VN, ZrN



Boride Materials

AlB2, B, CaB6, CeB6, FeB, CrB2, HfB2, LaB6, MgB2,
MnB, MoB, SiB6, SmB6, TaB2, TiB2, ZrB2



Silicide Materials

MoSi2, HfSi2, TaSi2, ZrSi2, WSi2, TiSi2, Mg2Si,
CoSi2, FeSi2, CrSi2, VSi2

Halide Materials

- Ultra-High Purity, up to 99.999%

- Unique spectral characteristics for luminescent materials
- Custom ampoulation available, Under argon atmosphere

FLUORIDES	CHLORIDES	BROMIDES	IODIDES
BaF2	CeCl3	CeBr3	CuI
CaF2	DyCl3	KBr	AlI3
CeF3	ErCl3	PbBr2	GeI2
CsF	GdCl3	SnBr4	BiI3
ErF3	NbCl5	TbBr3	PbI2
GdF3	LaCl3	ZnBr2	TeI4
MgF2	LiCl		CsI
LiF	NdCl3		SnI4
NaF	WCl6		CaI2-4H2O
AlF3	NiCl2		
InF3	HfCl4		
TiF4	TaCl5		
PbF2	CsCl		
SmF3	NaCl		
SrF2	MoCl5		
YbF3	PbCl2		
YF3	PrCl3		
ZnF2	SiCl4		
	YbCl3		
	SnCl4		

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: **Y_2O_3, CeO_2, $Ce(OH)_4$, Eu_2O_3, Lu_2O_3, Sm_2O_3, Sc_2O_3, Pr_6O_{11}, Tm_2O_3, Nd_2O_3, La_2O_3, Ho_2O_3, Er_2O_3, Tb_4O_7, Yb_2O_3, Dy_2O_3, Gd_2O_3...** **Halides:** **$CeBr_3$, $CeCl_3 \cdot 7H_2O$, $DyCl_3$, $EuCl_3.6H_2O$, GdF_3, $LaCl_3.7H_2O$, $TbBr_3$, $TmCl_3$, $YbCl_3.6H_2O$, YbF_3, YF_3, YCl_3, $GdCl_3$, $PrCl_3$, $SmCl_3$,$NdCl_3$, $ErCl_3$...**

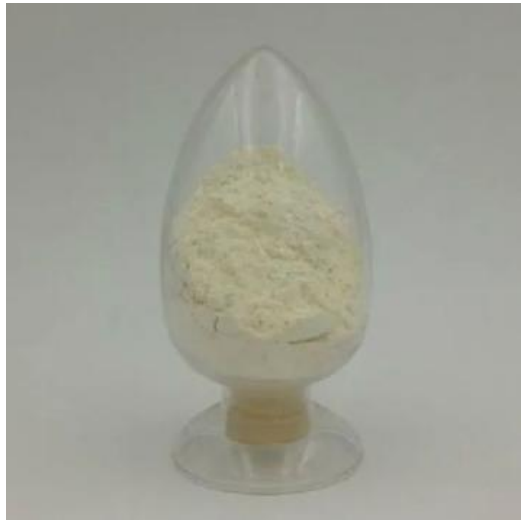
Salts: **$Gd(NO_3)_3.xH_2O$, $Y_2(CO_3)_3 \cdot xH_2O$,$LaAlO_3$, $DyScO_3$, $Eu_2(SO_4)_3.8H_2O$, $GdScO_3$, $LaCrO_3$, $Lu(AC)_3.4H_2O$, $Sc(NO_3)_3.6H_2O$, YVO_4, YIG, $Y_3Al_5O_{12}$...**

Alloy: **$SmCo_5$, AlSc, CeGd, CeSm, CrY, MoLa, MgY, $LaNi_5$, YNiAl, ZrY, Er_3Ni, $SmMn_2Ge_2$, $La_{0.95}Ce_{0.05}Si_2$...**

Nano Powders

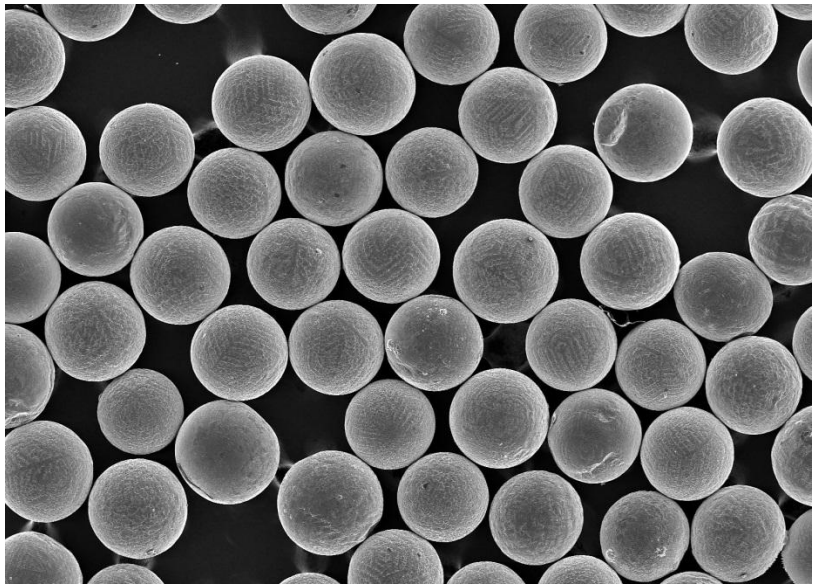
- 20-800nm, 99.0%~99.9%
- Process: Gas-Phase: CVD, LCVD;
  Liquid-Phase: SOL-GEL, hydrothermal synthesis, co-precipitation

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_2O_3, ZnO, TiO_2, ZrO_2, CuO, Fe_2O_3, Fe_3O_4, SnO_2, NiO, ITO, ATO, MgO, MoO_3, Nb_2O_5…
Nano Carbides: SiC, TiC, Cr_3C_2, B_4C, ZrC, TaC, Mo_2C, NbC, WC…
Nano Nitrides: AlN, BN, Si_3N_4, TiN, VN, CrN, ZrN…
Nano Borides: ZrB_2, TiB_2, LaB_6, HfB_2, B
Nano Sulfides: MoS_2, WS_2
Nano Silicides: $TaSi_2$, $HfSi_2$, $MoSi_2$, $ZrSi_2$

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) …

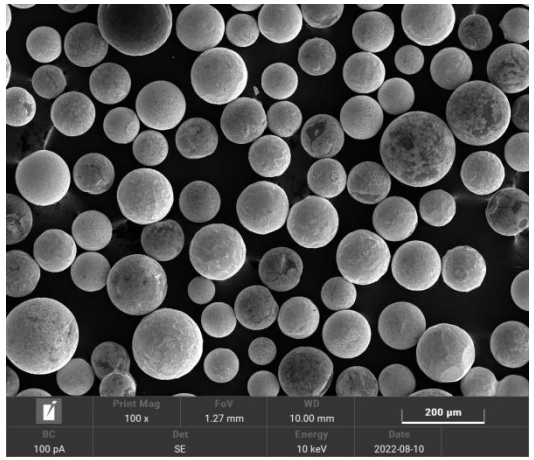
Aluminum-Base Alloy Spherical Powder : A14130(AlSi12), AlSi9Cu3, AlMg4.5Mn0.4, A03560(AlSi7Mg), A03600(AlSi10Mg), 2024(AlCuMnMgCrZn), 7075(AlZnMgCu1.5) …

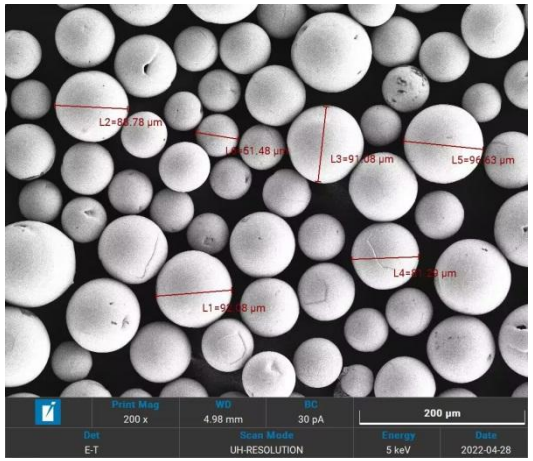
Stainless steel Spherical Powder: 17-4PH, 17-7PH, 304L, 316L, 410S, H13 Die steel, 420 Die steel …

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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