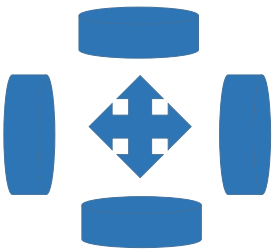
CHALCOGENIDE & PHOSPHOROUS MATERIALS

- Chalcogenide Compound Materials ..... VI 03
- Phosphorous Compound Materials ..... VI 07



FUNCMATER manufactures an entire series of Sulfides, Selenides, Tellurides, Phosphides, Arsenides, Antimonides and other intermetallics for semiconductor applications, integrated circuit, and flat pane display technologies.

PURITY & PHYSICAL SPECIFICATIONS

We supply high purity Chalcogenide materials, the purity between 99.99%-99.99999% (Purity is based on spectrographic values of trace metals found, Carbon and Sulfur are not included in the analysis but can possibly be determined if needed), Various shapes for customer's choice.



CERTIFICATION

All items are shipped with an analysis certificate. The analysis is specific to the actual lot of material being sent and not a "typical analysis", unless specifically stated.

All dangerous materials are shipped attached by a Material Safety Data Sheet (MSDS).





CUSTOM MANUFACTURING

The purity and physical specification listed are most commonly used, However Funcmater can offer a variety of grades and purities of compounds to optimally fit your needs.

Whether your research focuses on sensors, optoelectronics, photovoltaics or biomedical applications, Funcmater is your source.

Chalcogenide Compound Materials

S

Sulfide Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Sulfur	S	7704-34-9	99.99%-99.9999%	Granules, Lumps, Powder
Antimony(III) Sulfide	Sb_2S_3	1345-04-6	99.99%-99.9999%	lumps, powder
Arsenic(III) Sulfide	As_2S_3	1303-33-9	99.99%-99.999%	lumps, powder
Barium Sulfide	BaS	21109-95-5	99.9%	powder
Bismuth(III) Sulfide	Bi_2S_3	1345-07-9	99.99%-99.9999%	powder
Boron Sulfide	B_2S_3	12007-33-9	99.9%	powder
Cadmium Sulfide	CdS	1306-23-6	99.99%-99.9999%	lumps, powder
Calcium Sulfide	CaS	20548-54-3	99.9%	powder
Cerium Sulfide	Ce_2S_3	12014-93-6	99.9%	powder
Cobalt(II) Sulfide	CoS	1317-42-6	99.9%-99.99%	powder
Cobalt(IV) Sulfide	CoS_2	12013-10-4	99.9%-99.99%	powder
Copper(I) Sulfide	Cu_2S	22205-45-4	99.99%-99.999%	lumps, powder
Copper(II) Sulfide	CuS	1317-40-4	99.99%-99.999%	lumps, powder
Europium Sulfide	EuS	12020-65-4	99.9%	powder
Gadolinium Sulfide	Gd_2S_3	12134-77-9	99.9%	powder
Gallium(II)Sulfide	GaS	12024-10-1	99.99%-99.9999%	powder
Gallium(III) Sulfide	Ga_2S_3	12024-22-5	99.99%-99.9999%	powder
Germanium(II) Sulfide	GeS	12025-32-0	99.99%-99.999%	powder
Germanium Disulfide	GeS_2	12025-34-2	99.99%-99.999%	powder
Hafnium Disulfide	HfS_2	18855-94-2	99.9%	powder
Holmium Sulfide	Ho_2S_3	12162-59-3	99.9%	powder

Indium(III) Sulfide	In_2S_3	12030-24-9	99.99%-99.9999%	lumps, powder
Indium(II) Sulfide	InS	12030-14-7	99.99%-99.9999%	lumps, powder
Ferrous sulfide	FeS	1317-37-9	99.99%-99.999%	powder
Iron Sulfide / PYRITE	FeS_2	1309-36-0	99.99%-99.999%	powder
Lanthanum Sulfide	La_2S_3	12031-49-1	99.9%	powder
Lead(II) Sulfide	PbS	1314-87-0	99.99%-99.9999%	lumps, powder
Lithium Sulfide	Li_2S	12136-58-2	99.9%	powder
Lutetium Sulfide	Lu_2S_3	12031-49-1	99.9%	powder
Magnesium Sulfide	MgS	12032-36-9	99.9%	powder
Mercury(II) Sulfide	HgS	1344-48-5	99.99%-99.999%	powder
Neodymium Sulfide	Nd_2S_3	12035-32-4	99.9%	powder
Nickel(II) Sulfide	NiS	16812-54-7	99.9%-99.99%	powder
Nickel(IV) Disulfide	NiS_2	12035-51-7	99.9%-99.99%	lumps, powder
Niobium Disulfide	NbS_2	12136-97-9	99.9%	powder
Praseodymium Sulfide	Pr_2S_3	12038-13-0	99.9%	powder
Samarium Sulfide	Sm_2S_3	12067-22-0	99.9%	powder
Scandium Sulfide	Sc_2S_3	12166-29-9	99.9%	powder
Silicon(IV)Sulfide	SiS_2	13759-10-9	99.99%-99.999%	powder
Silver Sulfide	Ag_2S	21548-73-2	99.99%-99.999%	lumps, powder
Strontium Sulfide	SrS	1314-96-1	99.9%	powder
Tantanium Disulfide	TaS_2	12143-72-5	99.9%-99.99%	powder
Terbium Sulfide	Tb_2S_3	12138-11-3	99.9%	powder
Thulium Sulfide	Tm_2S_3	12166-30-2	99.9%	powder
Tin Disulfide	SnS_2	1315-01-1	99.99%-99.999%	powder
Tin(II) Sulfide	SnS	1314-95-0	99.99%-99.999%	powder
Titanium(IV) Sulfide	TiS_2	12039-13-3	99.95%	powder
Ytterium Sulfide	Y_2S_3	12039-19-9	99.9%	powder
Zirconium Sulfide	ZrS_2	12039-15-5	99.9%	powder



Selenide Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Selenium	Se	7782-49-2	99.999%-99.9999%	Powder, Shots
Arsenic(III) Selenide	As_2Se_3	1303-36-2	99.99%-99.9999%	lumps, powder
Barium Selenide	BaSe	1304-39-8	99.9%	powder
Bismuth(III) Selenide	Bi_2Se_3	12068-69-8	99.99%-99.9999%	lumps, powder

Cadmium Selenide	CdSe	1306-24-7	99.99%-99.9999%	lumps, powder
Calsium Selenide	CaSe	1305-84-6	99.9%	powder
Cobalt Selenide	CoSe	1307-99-9	99.95%	powder
Copper(I) Selenide	Cu_2Se	20405-64-5	99.99%-99.9999%	lumps, powder
Copper(II) Selenide	CuSe	1317-41-5	99.99%-99.9999%	lumps, powder
Gallium(III) Selenide	Ga_2Se_3	12024-24-7	99.99%-99.9999%	lumps, powder
Gallium(II) Selenide	GaSe	12024-11-2	99.99%-99.9999%	lumps, powder
Germanium(II) Selenide	GeSe	12065-10-0	99.99%-99.9999%	lumps, powder
Germanium(IV) Selenide	$GeSe_2$	12065-11-1	99.99%-99.9999%	lumps, powder
Indium(III) Selenide	In_2Se_3	12056-07-4	99.99%-99.9999%	lumps, powder
Iron Selenide	FeSe	1310-32-3	99.99%-99.999%	powder
Lead(II) Selenide	PbSe	12069-00-0	99.99%-99.9999%	lumps, powder
Magnesium Selenide	MgSe	1313-04-8	99.9%	powder
Manganese(II) Selenide	MnSe	1313-22-0	99.9%	lumps, powder
Mercury Selenide	HgSe	20601-83-6	99.99%-99.999%	powder
Molybdenum(IV) Selenide	$MoSe_2$	12058-18-3	99.9%-99.99%	lumps, powder
Nickel(II) Selenide	NiSe	1314-05-2	99.9%-99.99%	lumps, powder
Niobium(IV) Selenide	$NbSe_2$	12034-77-4	99.9%-99.99%	lumps, powder
Silver(I) Selenide	Ag_2Se	1302-09-6	99.99%-99.999%	powder
Sodium Selenide	Na_2Se	1313-85-5	99.9%	powder
Tantalum Selenide	$TaSe_2$	12039-55-3	99.9%	powder
Tin Selenide	SnSe	1315-06-6	99.99%-99.9999%	lumps, powder
Tin(IV)Selenide	$SnSe_2$	20770-09-6	99.99%-99.9999%	lumps, powder
Tungsten(IV) Selenide	WSe_2	12067-46-8	99.99%	lumps, powder
Zirconium Selenide	$ZrSe_2$	12166-47-1	99.95%	powder



Telluride Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Antimony(III) Telluride	Sb_2Te_3	1327-50-0	99.99%-99.9999%	lumps, powder
Arsenic(III) Telluride	As_2Te_3	12044-54-1	99.99%-99.9999%	lumps, powder
Bismuth(III) Telluride	Bi_2Te_3	1304-82-1	99.99%-99.9999%	lumps, powder
Cadmium Telluride	CdTe	1306-25-8	99.99%-99.9999%	lumps, powder
Calcium Telluride	CaTe	12013-57-9	99.9%	powder
Chromium Telluride	Cr_2Te_3	12053-39-3	99.9%-99.99%	powder

Cobalt Telluride	CoTe	12017-13-9	99.95%	powder
Copper(I) Telluride	Cu_2Te	12019-52-2	99.99%-99.9999%	lumps, powder
Copper(II) Telluride	CuTe	12019-23-7	99.99%-99.9999%	lumps, powder
Gallium(II) Telluride	GaTe	12024-14-5	99.99%-99.9999%	lumps, powder
Germanium(II) Telluride	GeTe	12025-39-7	99.99%-99.9999%	lumps, powder
Germanium Telluride	$GeTe_2$	12260-55-8	99.99%-99.9999%	lumps, powder
Hafnium Telluride	$HfTe_2$	39082-23-0	99.95%	powder
Indium(III) Telluride	In_2Te_3	1312-45-4	99.99%-99.9999%	lumps, powder
Indium Telluride	InTe		99.99%-99.9999%	lumps, powder
Lead(II) Telluride	PbTe	1314-91-6	99.99%-99.9999%	lumps, powder
Manganese Telluride	MnTe	12032-88-1	99.99%	lumps, powder
Mercury(II) Telluride	HgTe	12068-90-5	99.99%-99.999%	lumps, powder
Molybdenum(IV)Telluride	$MoTe_2$	12058-20-7	99.95%	powder
Nickel Telluride	NiTe	12142-88-0	99.99%	lumps, powder
Niobium Telluride	$NbTe_2$	12034-83-2	99.99%	lumps, powder
Silver Telluride	Ag_2Te	12002-99-2	99.99%-99.999%	lumps, powder
Sodium Telluride	Na_2Te	12034-41-2	99.9%	powder
Tin(II) Telluride	SnTe	12040-02-7	99.99%-99.9999%	lumps, powder
Tin Telluride	$SnTe_2$		99.99%-99.9999%	lumps, powder
Tungsten(IV) Telluride	WTe_2	12067-76-4	99.99%	lumps, powder
Zinc Telluride	ZnTe	1315-11-3	99.99%-99.9999%	lumps, powder



Phosphorous Compound Materials

P Phosphide Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Cadmium Phosphide	Cd_3P_2	12014-28-7	99.99%-99.9999%	lumps, powder
Zinc Phosphide	Zn_3P_3	1314-84-7	99.99%-99.9999%	lumps, powder
Cobalt Phosphide	Co_2P	12134-02-0	99.9%	lumps, powder
Molybdenum Phosphide	MoP	12163-69-8	99.9%	lumps, powder
Iron Phosphide	Fe_3P	12023-53-9	99.9%	lumps, powder
Iron Phosphide	Fe_2P	1310-43-6	99.9%	lumps, powder
Nickel Phosphide	Ni_2P	12035-64-2	99.9%	lumps, powder

As Arsenic Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Gallium Arsenic	GaAs	1303-00-0	99.99%-99.9999%	lumps, powder
Indium Arsenic	InAs	1303-11-3	99.99%-99.9999%	lumps, powder

Sb Antimonide Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Cadmium Antimonide	CdSb	12050-27-0	99.99%-99.9999%	lumps, powder
Gallium Antimonide	GaSb	12064-03-8	99.99%-99.9999%	lumps, powder
Indium Antimonide	InSb	1312-41-0	99.99%-99.9999%	lumps, powder
Germanium Antimonide	GeSb		99.99%-99.9999%	lumps, powder
Cobalt Antimonide	CoSb	12052-42-5	99.95%	lumps, powder

O Other Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Cadmium Stannate	Cd_2SnO_4	12185-56-7	99.99%-99.999%	powder
Sodium Tellurite	Na_2O_3Te	10102-20-2	99.9%-99.99%	powder
Potassium Tellurite	K_2O_3Te	123333-66-4	99.9%-99.99%	powder
Indium Acetate	$In(C_2H_3O_2)_3$	25114-58-3	99.99%-99.999%	powder
Lead Acetate	$(CH_3COO)_2Pb$	301-04-2	99.99%	powder
Cadmium Acetate	$Cd(CH_3CO_2)_2$	543-90-8	99.99%	powder
Zinc Acetate	$C_4H_{10}O_6Zn$	557-34-6	99.99%	powder
Gallium Acetate	$C_6H_9GaO_6$	2571-06-4	99.99%	powder
Bismuth Acetate	$C_6H_9BiO_6$	22306-37-2	99.99%	powder



Bi

Bismuth Compound Materials

CHEMICAL NAME	FORMULA	CAS No.	PURITY	PHYSICAL SPECIFICATIONS
Bismuth metal	Bi	7440-69-9	99.9%-99.99%	Pellets, powder, Beads, Needles, Sputtering Target
Bismuth oxide	Bi_2O_3	1304-76-3	99.9%-99.999%	Powder
Bismuth nitrate pentahydrate	$Bi(NO_3)_3{\cdot}5H_2O$	10035-06-0	≥99.9%	Crystalline Powder
Bismuth nitrate oxide	$BiNO_4$	10361-46-3	71.5%-74.5%	Powder
Bismuth subcarbonate	CBi_2O_5	5892-10-4	80.0%-82.5%	Powder
Bismuth hydroxide	$Bi(OH)_3$	10361-43-0	79.5%-82.5%	Powder
Bismuth oxychloride	BiClO	7787-59-9	≥79.0%	Crystalline powder
Bismuth trichloride	$BiCl_3$	7787-60-2	≥99.9%	Crystal
Bismuth sulfate	$Bi_2(SO_4)_3$	7787-68-0	≥98.0%	Crystal or powder
Bismuth(III) fluoride	BiF_3	7787-61-3	≥99.0%	Crystal
Bismuth(III) citrate	$C_6H_5BiO_7$	813-93-4	50.0%-53.0%(Bi)	Powder
Bismuth octoate	$Bi[OOCCH(C_2H_5)C_4H_9]_3$	67874-71-9	≥20.0%(Bi)	Liquid
Bismuth,2-hydroxypropanoate	$C_9H_{15}BiO_9$	6591-53-3	8%(Bi)	Powder/Liquid
Bismuth neodecanoate	$C_{30}H_{57}BiO_6$	34364-26-6	16.0%-20.0%(Bi)	Liquid
Naphthenicacids, bismuthsalts		85736-59-0	≥99.0%	Liquid

