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Pioneer Materials
 Advanced Materials for photovoltaic · thermoelectric · semiconductor · optical media · sensor applications



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公司使命:
 成为在半导体、干净能源利用、以及其它高端材料应用领域世界第一流的材料供应商.

Company Mission:
 To be a world-class supplier of innovative materials in semiconductor, clean energy harvesting and other advanced materials applications.

先锋材料有限责任公司

Pioneer Materials Inc.

公司简介 PMI Introduction



先锋材料有限公司是于2002年成立的一家中外合资公司。注册资金为660万美元。公司拥有一批高水平的技术骨干人员，集研发和生产于一体，主要开发和生产用于新型半导体记忆体芯片，薄膜太阳能电池，热电转换设备，光学存储和涂层等新兴技术领域的材料产品，是国家认定的高新技术企业。在成都高新技术开发西区，公司拥有10亩地和7000多平方米的厂房设施，已取得ISO9001质量体系及ISO14001环境体系认证。公司现有24项国内外发明专利，10项发明专利正在申请中。

公司产品包括上述应用的各种高科技薄膜溅射靶材，金属和半导体硫族元素化合物材料，以及各种成分的高纯度粉末。利用公司强大的材料科学技术力量，也为客户提供各种量身定做有关高科技材料方面的技术服务。公司目前的客户主要分布在北美，欧洲，东亚等地。

Pioneer Materials Inc. (PMI) is a supplier of advanced materials for thin-film deposition by sputtering and evaporation. PMI established itself with a proven record of on-time delivery, exceeding customer's specifications, and cost competitiveness. Critical expertise in compound formation, powder processing, and powder consolidation have been developed by PMI for applications in semiconductor memory IC devices, thin-film photovoltaics, thermoelectrics, and other critical coatings, and a portfolio of relevant intellectual properties have been built over years. PMI wholly owns an operation in Chengdu, China with more than 7,000 square meters manufacturing facility which is ISO 9001 and ISO 14001 certified. PMI has 24 domestic and foreign invention patents, 10 invention patents are under application. PMI's customers are distributed in North America, Europe and East Asia, and has target bonding partners in the corresponding locations. PMI was founded by veterans from the semiconductor, magnetic recording and sputtering target industries focusing on high performance materials applications.

公司产品 PMI Products

Sputter Targets (up to 450 mm OD); Granules (< 5 mm in size); Powder (-400 mesh)

溅射靶材（直径可达450 mm）；颗粒（小于5 mm）；粉末（-400目）

Compounds 多种化合物

半导体记忆体芯片材料：GeSbTe, GeAsSe, ZnSe, MoS₂, SrRuO₃, WS₂, WSe₂, As₂Se₃, Sb₂Te₃, GeSe₂

薄膜光伏材料：Cu(In,Ga)Se₂, Cu₂ZnSnS₄, In₂Se₃, In₂S₃, Cu₂Se, Cu₂S, AZO, CuGa, CuInGa

热-电转换材料：BiSeTe, BiSbTe, SiGe, Bi₂Se₃, Bi₂Te₃, Sb₂Te₃, Sb₂Se₃

特殊应用薄膜涂层：SiO₂, ZnS-SiO₂, ZnO, CuS₂, CuSe₂, GeCr

公司资质 PMI Quality

ISO9001



ISO14001



公司设施 PMI Facilities



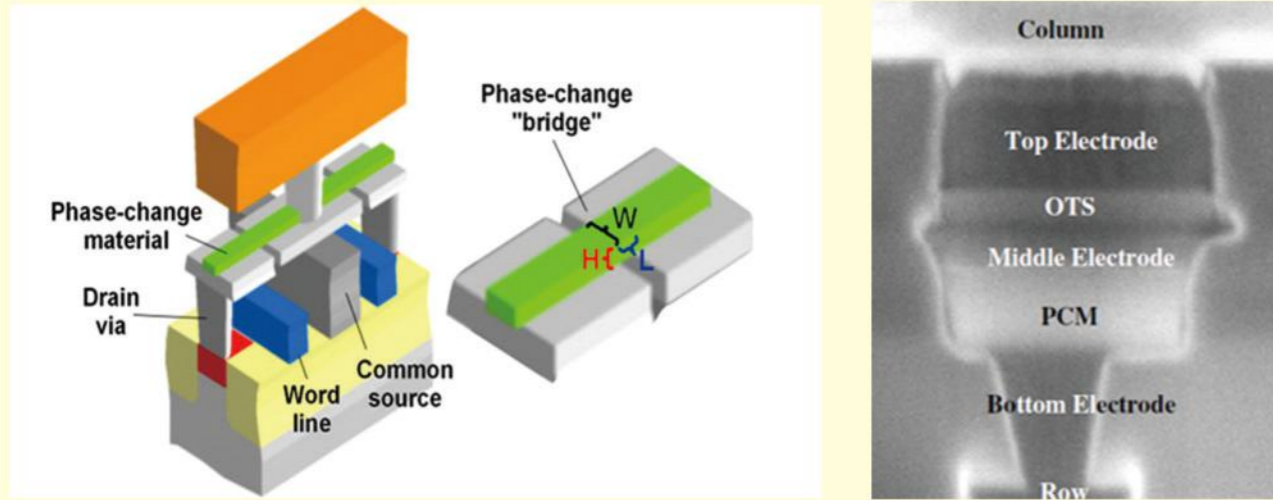
生产厂房
厂房面积约4000平方米
年产量：5,000块靶材
热压机：6台
PMI Fab Manufacturing Facility
4,000 sq. meter facility
Capacity: 5,000 targets/year
Hot Press: 6 sets



生产厂房
厂房面积约3000平方米
年产量：10,000块靶材
热压机：12台
PMI Fab Manufacturing Facility
3,000 sq. meter facility
Capacity: 10,000 targets/year
Hot Press: 12 sets

新一代记忆体芯片应用关键材料

Critical Materials for Next Generation Memory IC Applications



相关产品Products

GeSbTe, GeAsSe, ZnSe, As₂Se₃, MoS₂, SrRuO₃, WS₂, WSe₂, Sb₂Te₃, GeSe₂



硫族元素化合物 Chalcogenide Compounds

GeSbTe

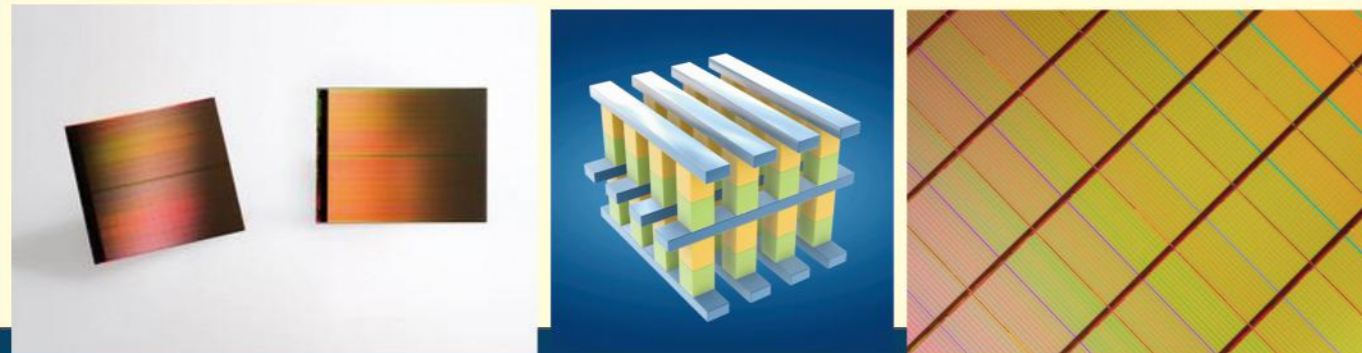
规格参数

成分	Ge, Sb, Te (不同原子比)
纯度	>=99.999%
密度	6.38g/cm ³ (不同成分, 略有出入)
尺寸	50.8mm - 440mm
公差	直径: ±0.1mm, 厚度: ±0.1mm
粗糙度	32RMS

Specifications

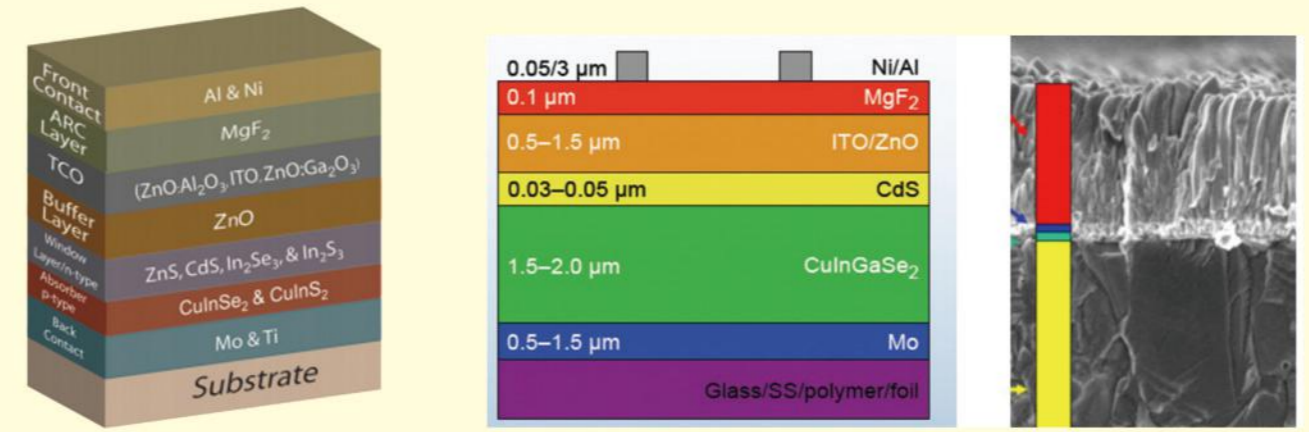
Composition	Ge,Sb,Te(tailored to required atomic ratio)
Purity	>=99.999%
Density	6.38g/cm ³ (varies with composition)
Dimension	50.8mm - 440mm
Tolerance	diameter: ±0.1mm, thickness: ±0.1mm
Surface Roughness	32RMS

材料应用Applications



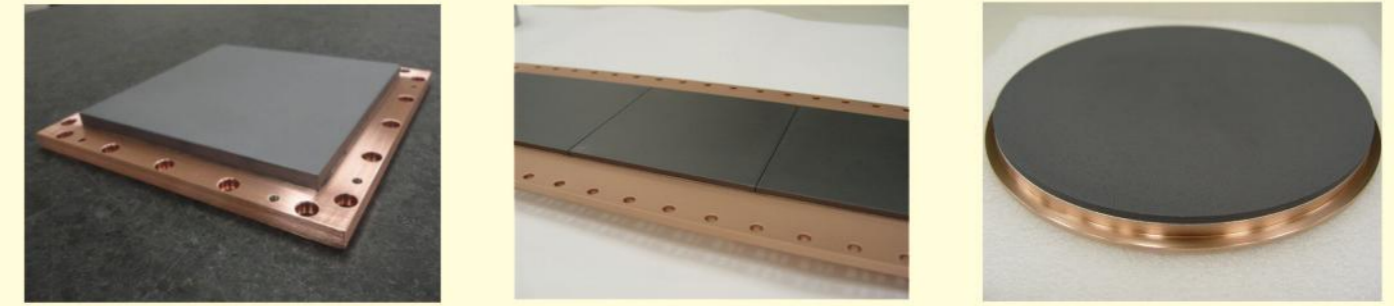
薄膜光伏材料

Thin Film Photovoltaic Materials



相关产品Products

Cu(In, Ga)Se₂, Cu₂ZnSnS₄, In₂Se₃, In₂S₃, Cu₂Se, Cu₂S, CuGaSe, AZO, CuGa, CuInGa



CuInGaSe

In₂Se₃

In₂S₃

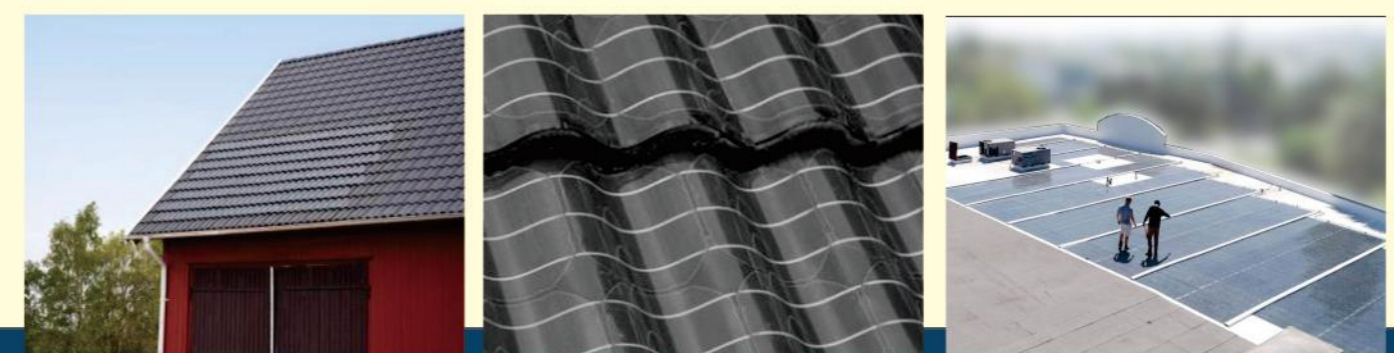
规格参数

成分	CIGS (不同原子比)
纯度	>=99.999%
密度	5.7g/cm ³ (不同成分, 略有出入)
尺寸	50.8mm - 440mm
公差	直径: ±0.1mm, 厚度: ±0.1mm
粗糙度	32RMS

Specifications

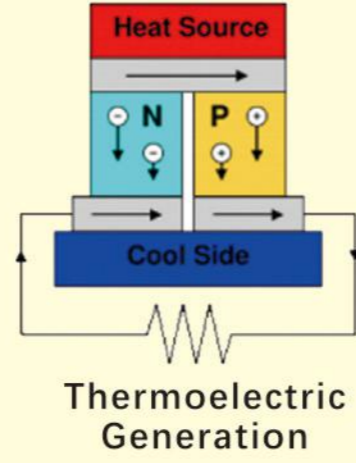
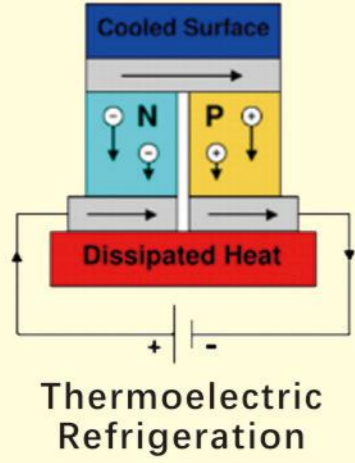
Composition	CIGS (tailored to required atomic ratio)
Purity	>=99.999%
Density	5.7g/cm ³ (varies with composition)
Dimension	50.8mm - 440mm
Tolerance	diameter: ±0.1mm, thickness: ±0.1mm
Surface Roughness	32RMS

材料应用Applications



热-电材料

Thermoelectric Materials

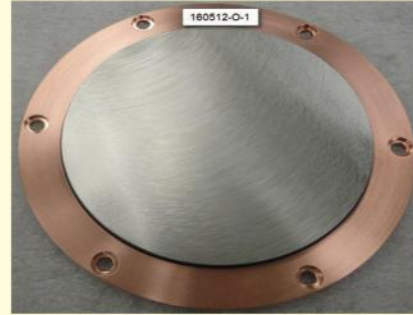


相关产品Products

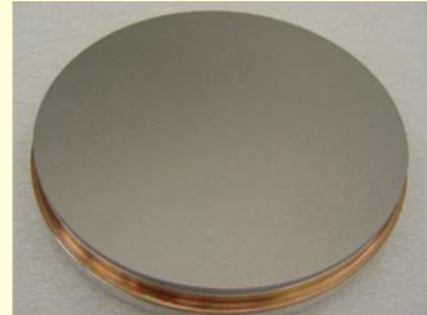
BiSeTe, BiSbTe, SiGe, Bi₂Se₃, Bi₂Te₃, Sb₂Te₃, Sb₂Se₃



BiTeSe



BiSbTe



Bi₂Te₃

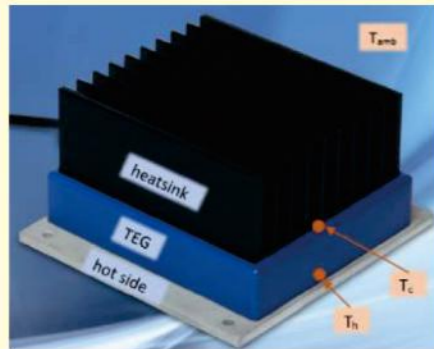
规格参数

成分	Bi, Te, Se (不同原子比)
纯度	>=99.999%
密度	7.71g/cm ³ (不同成分, 略有出入)
尺寸	50.8mm - 440mm
公差	直径: ±0.1mm, 厚度: ±0.1mm
粗糙度	32RMS

Specifications

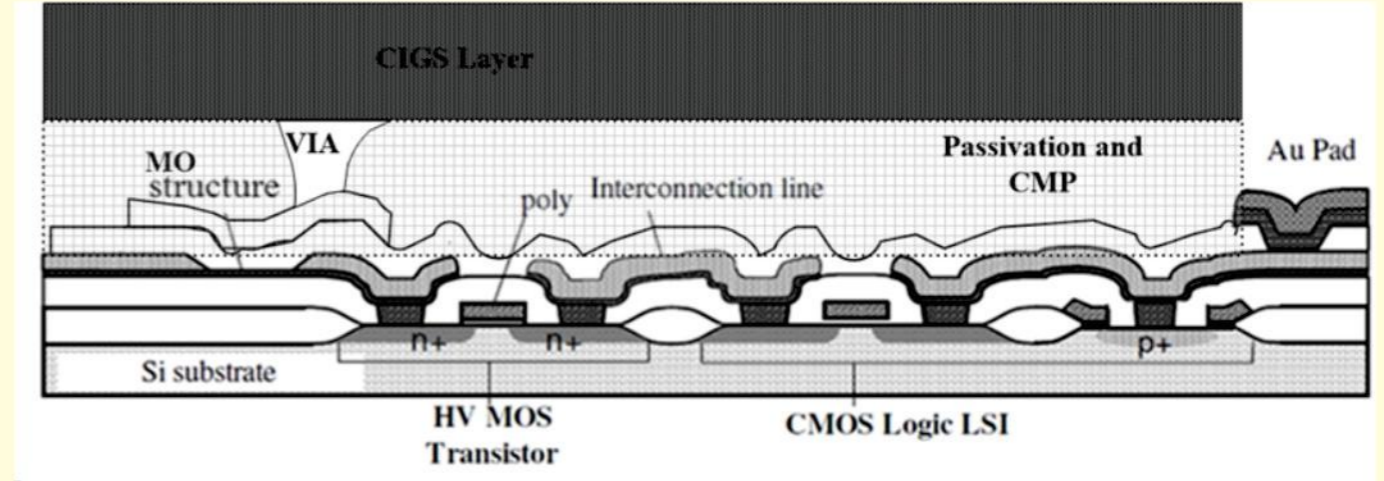
Composition	Bi,Te,Se(tailored to required atomic ratio)
Purity	>=99.999%
Density	7.71g/cm ³ (varies with composition)
Dimension	50.8mm - 440mm
Tolerance	diameter: ±0.1mm, thickness: ±0.1mm
Surface Roughness	32RMS

材料应用Applications



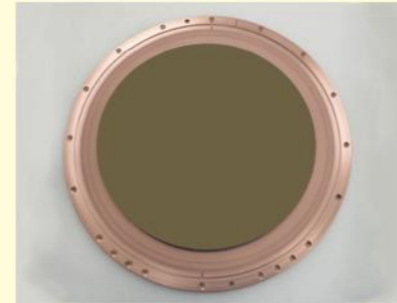
特殊应用薄膜涂层材料

Special Thin Film Coating Materials



相关产品Products

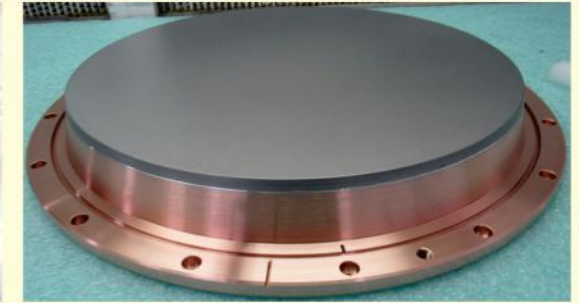
ZnSe, SiO, CuS₂, CuSe₂, ZnS-SiO₂, ZnO



ZnSe



CuS₂



GeTe

规格参数

成分	ZnSe (1:1)
纯度	>=99.999%
密度	5.2g/cm ³ (不同成分, 略有出入)
尺寸	50.8mm - 440mm
公差	直径: ±0.1mm, 厚度: ±0.1mm
粗糙度	32RMS

Specifications

Composition	ZnSe (1:1)
Purity	>=99.999%
Density	5.2g/cm ³ (varies with composition)
Dimension	50.8mm - 440mm
Tolerance	diameter: ±0.1mm, thickness: ±0.1mm
Surface Roughness	32RMS

材料应用Applications

