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孙国胜，男，博士，研究员，博士生导师。

1963年7月生，1985年和1988年毕业于兰州大学物理系并分获理学学士和理学硕士学位，1988-1990年于西安理工大学自动化与信息工程学院电子工程系（原陕西机械学院自动化工程系）任助教，1994年毕业于中国科学院半导体研究所并获理学博士学位，同年留所从事半导体致冷技术的开发工作。1997-1998年在美国加州大学洛杉矶分校（UCLA）物理系做博士后研究工作。目前主要从事第三代宽带隙SiC（碳化硅）半导体外延材料生长、特性表征、以及SiC功率半导体器件研制工作。先后参加和主持国家“863”、国家重大基础研究计划项目（973项目）、国家自然科学基金委、中国科学院重点和北京市科委等项目多项。近来，作为广东省创新科研团队引进项目的主要成员，与广东省企业合作承担了广东省战略性新型产业项目和东莞市重大方向性项目，开展SiC外延晶片产业化以及SiC功率半导体器件制造技术研发工作。

在“九五”、“十五”和“十一五”期间，广泛开展了SiC半导体技术的研发工作，其中包括MEMS器件用Si（硅）基SiC半导体材料异质外延生长技术、SiC功率半导体器件用SiC同质外延生长技术、以及SiC功率半导体器件和SiC MEMS器件制造技术。利用自有技术，先后研制出高温SiC热壁CVD外延生长设备（包括水平式与垂直式）、高温退火装置、高温氧化装置，并获得国家发明专利和实用新型专利多项。在利用$SiH_4+C_2H_4+H_2$气体系统和自主研制的热壁CVD生长系统获得高质量SiC外延材料的基础上，先后研制出阻塞电压大于1000V的Ti/4H-SiC Schottky二极管器件和阻塞电压为300-500V的PiN二极管器件、SiC UV太阳光盲探测器、SiC MESFET器件以及3C-SiC谐振器（250kHz）和滤波器等。多年还从事过非晶硅半导体材料与器件技术和半导体致冷技术的研究与开发工作，曾获得中国科学院科学技术成果奖（非晶硅中的亚稳缺陷及界面问题研究）、陕西省教育委员会科学技术进步奖（非晶碳化硅的电致发光特性及大面积发光二极管）和中国科学院留学回国择优支持项目的资助。从九十年代至今在国内外主要学术刊物上发表研究论文六十余篇，获得国家发明和实用新型专利十余项。

主要研究领域或方向：

第三代宽带隙SiC半导体材料、物理与器件及产业化研究。

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在研/完成项目：

1.广东省引进科研创新团队（第二批）项目：（2011-2016）；

2.广东省战略性新型产业项目：（2013-2014）；

3.东莞市重大方向性项目：（2010-2013）；

4.中国科学院知识创新工程项目：（2010-2011）；

5.973”项目：“4H-SiC PiN结构材料研究”（2005-2010）；

6.中国科学院创新仪器设备项目：“大面积/多片SiC　　CVD系统研制”（2007-2009）；

7.自然科学基金：“3C-SiC厚膜生长及MOSFET器件研究”（2006-2009）；

8.“863”项目：“3C-SiC　MEMS滤波器研究”（2005-2008）；

9.自然科学基金：“3C-SiC　MEMS谐振器研究”（2005-2008）；

10.“863”项目：“SiC探测器研究”（2002-2005）；

11.中国科学院项目：“高温大功率器件用SiC外延材料研究”（2001-2005）；

12.“973”项目:“高温大功率微电子器件用SiC外延材料研究”(2000 - 2005)；

13.“863”项目:“可用于III族氮化物生长的大尺寸低位错密度SiC衬底制备技术”(2001 - 2004)；

14.自然科学基金专题：“高温微电子器件和电路”(1997 - 2001)；

15.国家“九五”重点科技攻关计划：“高温功率器件用MBE碳化硅材料”(1996 - 2000)；

代表性论文：

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关于 我们

1956年，在我国十二年科学技术发展远景规划中，半导体科学技术被列为当时国家新技术四大紧急措施之一。为了创建中国半导体科学技术的研究发展基地，国家于1960年9月6日在北京成立中国科学院半导体研究所开启了中国半导体科学技术的发展之路。

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