

一、简历

王一丁，男，锡伯族，1956年生。教授，博士生导师。1978年3月(77级)考入吉林大学物理系，1982年1月毕业，获学士学位，1989年在吉林大学物理系读硕士，1991年提前毕业，获硕士学位。留在物理系任教，1995年调入电子科学与工程系。2004年~2005年做为国家公派访问学者，在法国MontpellierII(蒙比利埃)第2大学暨国家科研中心(科学院)南方电子研究所进行合作研究。

2007年-现在，国家科技部高技术(863)计划新材料领域和资源环境领域评审专家，2005年和2007年国家自然科学基金委员会信息学部专家评审委员会成员，2008年和2010年国家科技部国际科技合作计划专家评审委员会成员，2006年中华医学科技奖评审委员。国际光学工程学会(SPIE)会员、中国电子学会高级会员、中国物理学会会员。

二、科研方向：

主要从事光电检测、红外透明导电膜、中红外半导体激光器和发光二极管、量子点太阳能电池和发光二极管、光波导、无线传输信号等应用研究。已经获得1项专利。共出版2本专著和发表文章一百五十余篇。

三、承担科研项目情况：

先后共主持和参加了二十余项国家和省部级等课题。近5年来共主持12个课题(其中国家级6个)，目前正在承担13个课题，包括3个863计划项目和3个国家基金项目。正在进行的项目(仅列出6个)

1、基于量子阱激光器的气体检测系统关键技术研究，(国家863计划项目，2009年5月—2011年12月)

利用分布反馈半导体激光器测量HCl和水蒸气。利用可调谐激光光谱和二次谐波技术进行测量。包括设计光路和电路结构，如激光器驱动电路、信号放大处理电路等。

2、基于石墨烯电极的PbSe/CdSe量子点太阳能电池(国家863计划项目，2011年3月—2014年2月)

研究利用化学方法合成PbSe/CdSe核壳量子点，制成薄膜。研制石墨烯透明电极。设计和制作太阳能电池。

3、ZnCuInS/ZnS量子点LED的关键问题研究，(国家自然科学基金委员会项目，2012年1月~2014年12月)

研究利用化学方法合成ZnCuInS/ZnS核壳量子点，设计和制作多色发光二极管。

4、中红外透明导电膜的研究，(国家自然科学基金委员会项目，2011年1月~2013年12月)

研究利用射频溅射方法，研制 In_2O_3 、ZnO、 CuAlO_2 等材料透射中红外导电膜，主要研究如何提高电导率和中红外透射率。

5、聚合物电光开关阵列的S+C+L超宽波段光谱平坦化及失效模式研究，(国家自然科学基金委员会项目，2012年1月~2014年12月)

6、红外瓦斯检测仪，(吉林省科技厅项目，2009年—2011年)。

利用红外吸收光谱技术测量瓦斯气体浓度，瓦斯的主要成分是甲烷。主要研究两部分内容：即设计光路和电路结构。包括研究各种光路、电路、光源和探测器等对测量精度的影响，研究利用单片机技术提高稳定性和可靠性等。

四、代表性工作及获奖情况

1、二氧化碳检测仪，国家科技部和自然科学基金委员会项目。

红外光电仪器，在全国农业科技表彰大会上受到国家科技部和农业部表彰，并列入国家科技成果重点推广计划和星火计划。

2、中红外激光二极管和发光二极管，国家863计划和自然科学基金委员会项目。

3、红外卤化物晶体光纤，国家863计划和自然科学基金委员会项目。

五、 讲授课程

曾经为本科生主讲半导体光电器件，理论力学，普通物理力学、热学、电磁学和光学等课程，以及近代物理等实验课。目前正在为硕士生讲授物理传感技术和应用课程。

六、 报考要求

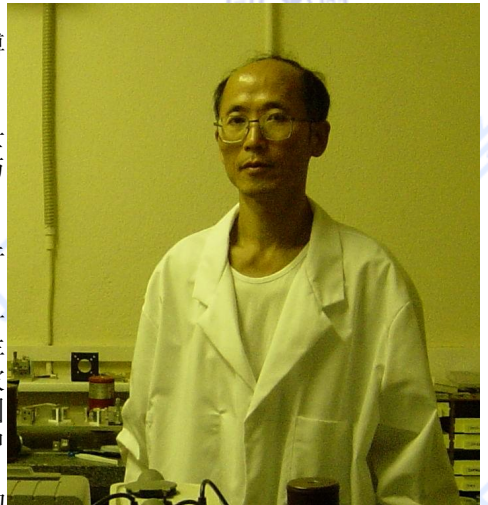
1、有做人的基本原则，有大学生和研究生的职业道德修养。

2、对科学研究有兴趣和热情，有强烈的求知欲望，努力刻苦学习。

3、有扎实的基本功，如基础理论知识、实验动手能力、查阅中外文献能力等。

4、有创造力和创新精神。

5、招生专业



招收：本院全部专业，化学学院全部专业，物理学院全部专业，材料学院全部专业（如化学类、光学类、电子类和材料类专业等）。

特别欢迎化学类和材料类保送生。

(1) 博士：电路与系统

2010年教育部开始改革招生，我校和我院是试点单位。简单说考试仅是参考，主要由导师决定是否招收博士生。

考试科目：学校招生目录中“电路与系统”的考试科目。

(2) 硕士：学校招生目录中“电路与系统”，“电磁场与微波技术”，“微电子学与固体电子学”，“物理电子学”5个专业。

考试科目：上述4个专业的科目，可以选择其中一个专业的考试科目。

如果化学类、材料类和物理类考生有困难，可以分别考本院专业，然后调剂到电子学院，如化学类考生考化学学院各专业。

七、研究生待遇

硕士和博士有奖学金，每月给助研费。

八、联系方式：

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九、2009年—2011年发表的部分文章目录

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