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RESUME

Over the years, he has participated in a number of national defense pre-research projects independently or cooperatively, such as chief of the XP project, as the leader of the JG973 project and as the deputy director of general office for JG973 project; published more than 100 academic papers in all kinds of academic journals and conferences; won five prizes at the provincial level or above, including the first prize of the National Science and Technology Progress Award in 2006, the outstanding achievement award of the Chinese academy of sciences, the first and the second prizes of the Army Science and Technology Progress Award and the third prize of the Ministry of Science and Technology Progress Award in 2007. He is mainly engaged in the manufacture and test of CMOS integrated circuits, the ionizing radiation effect of MOS devices, the test method of the ionizing radiation effect of MOS devices and circuits, and the single particle effect of MOS devices. Joining the Chinese Academy of Sciences Shanghai Institute of Microsystem and Information Technology though introducing talent since 2002, in which majored in SOI material preparation technology, the radiation hardness of SOI material, radiation effect and radiation hardness method of SOI devices and the radiation hardness of process in 130 nm SOI CMOS. He served as the

leader of “the knowledge innovation project” of the Chinese Academy of Sciences. In 2004, proposed the creative method of ion implantation to improve the total dose of SIMOX materials. Have more than 10 invention patents, one of which is authorized the national defense patent. He has published more than 20 papers in core journals, such as the IEEE EDL and IEEE Tran. on NS, etc. Currently, he is engaged in the development of domestic RH SOI materials and 130nm RH STI process.

EDUCATION

Ph.D. Microelectronics and Solid State Electronics, Xi'an Jiaotong University(XJTU), Xian,2000.

M.S. Microelectronics and Solid State Electronics, Xidian University(XDU), Xian,1993 .

B.S. Semiconductor Physics and Devices,Xi'an University of Technology(XAUT)，1987.

WORK EXPERIENCE

2002.3-Present Shanghai Institute of Microsystems and Information Technology, CAS.Assistant Professor(2002.3-2003.7) and Professor(2003.7-the present). Primarily performed research on the reliability andradiation hardness of SOI materials and devices.

1993.3-2002.2 Northwest Institute of Nuclear and Technology. Research assistant (1993.3-1998.12); assistant Director(1997.3-2001.5) and assistant Professor(1998.12-2002.2). Radiation Effects and Reliability Group, Efforts mainly focused on radiation effects and reliability of Silicon (TID and SEE).

1987.7-1990.7 Lishan Microelectronics Company. Associate research fellow. CMOS Process and IC Test.

HONORS AND AWARDED RESEARCH FUNDS

1997 The Second prize, Science and technology progress prize of State Commission of Science and Technology for National Defense Industry (http://dict.youdao.com/w/State%20Commission%20of%20Science%20and%20Technology%20for%20National%20Defense%20Industry/#keyfrom=E2Ctranslation).

1998 The Third prize, Science and technology progress prize of State Commission of Science and Technology for National Defense Industry (http://dict.youdao.com/w/State%20Commission%20of%20Science%20and%20Technology%20for%20National%20Defense%20Industry/#keyfrom=E2Ctranslation).

1999 The Third prize, Xi 'an science and technology progress prize.

2002 The first prize, The army science and technology progress award.

2006 The first prize, national prize for progress in science and technology.

2007 The outstanding achievement award of the Chinese academy of sciences.

SELECTED PUBLICATIONS

1. Leqing Zhang, Jialing Xu, Shuang Fan, Lihua Dai，Dawei Bi，Jian Lu，Zhiyuan Hu，Mengying Zhang，Zhengxuan Zhang. Single Event Upset Sensitivity of D-Flip Flop: Comparison of PDSOI With Bulk Si at 130 nm Technology Node. IEEE Transactions on Nuclear Science, 2017, 64(1): 683-688.

2. Lihua Dai, Dawei Bi, Bingxu Ning, Zhiyuan Hu，Lei Song，Xiaonian Liu，Mengying Zhang，Zhengxuan Zhang，Shichang Zou. Anomalous Electrical Properties Induced by Hot-Electron-Injection in 130-nm Partially Depleted SOI NMOSFETs Fabricated on Modified Wafer. IEEE Transactions on Nuclear Science, 2016, 63(5): 2731-2737.

3.Chao Peng, Zhiyuan Hu, Bingxu Ning, Shuang Fan, Leqing Zhang, Zhengxuan Zhang, and Dawei Bi,Influence of the Total Ionizing Dose Irradiation on130 nm Floating-body PDSOI NMOSFETs, IEEE Transactionson Nuclear Science, VOL. 62, NO. 1, FEBRUARY 2015.

4. Chao Peng , Zhiyuan Hu, Bingxu Ning, Lihua Dai, Dawei Bi, Zhengxuan Zhang, Radiation-enhanced gate-induced-drain-leakage current in the 130 nmpartially-depleted SOI pMOSFET, Solid-State Electronics 106 (2015) 81–86.

5. Chao Peng, Zhiyuan Hu, Zhengxuan Zhang, Huixiang Huang, Bingxu Ning, Dawei Bi, Investigating the degradation mechanisms caused by the TID effectsin 130 nm PDSOI I/O NMOS, Nuclear Instruments and Methods in Physics Research A,Vol. 748, 2014

6. Chao Peng, Zhiyuan Hu, Bingxu Ning, Huixiang Huang, Zhengxuan Zhang, Dawei Bi, Yunfei En, and Shichang Zou,Total-Ionizing-Dose Induced Coupling Effectin the 130-nm PDSOI I/O nMOSFETs, IEEE ELECTRON DEVICE LETTERS, Vol. 35, No. 5, 2014

7. Chao Peng, Zhiyuan Hu, Zhengxuan Zhang，Huixiang Huang，Bingxu Ning，Dawei Bi，Shichang Zou. A new method for extracting the radiation induced trapped charge density along the STI sidewall in the PDSOI NMOSFETs. IEEE Transactions on Nuclear Science, 2013, 60(6): 4697-4704.

8. Huixiang Huang, Dawei Bi, Bingxu Ning, Yanwei Zhang，Zhengxuan Zhang，Shichang Zou. Total Dose Irradiation-Induced Degradation of Hysteresis Effect in Partially Depleted Silicon-on-Insulator NMOSFETs. IEEE Transactions on Nuclear Science, 2013, 60(2): 1354-1360.

9．ZhengXuan zhang,Qing Lin,Ming Zhu,Cheng Lu Lin, A new Structure of SOI MOSFET for reducing self-heating effect，Creamics International 30(2004) 1289-1293.

10.Qing Lin, Ming Zhu, Yan-jun Wu, Xin-yun Xie, Zheng-xuan Zhang, Cheng-lu Lin “Numerical simulation of hot-carrier degradation in SOI MOSFETs”, The 4th International Workshop on Junction Technology: IWJT-2004

11.Lin Qing, ZHANG Zheng-Xuan, ZHU Ming, XIE Xin-Yun, SONG Hua-Qing, LIN Cheng-Lu, “A New Silicon-on-Insulator Structure of Metal-Oxide-Semiconductor Field Effect Transistor to Reduce Self-Heating Effect”, Chinese Physics Letters, Vol. 20, No. 1, 2003.

12.Zhang Zhengxuan, Lin Chenglu, “New structure of nano MOSFET/SOI Devices”, Journal of Functional Materials and Devices, Vol.02, 2003

13. Zhang Zhengxuan, Luo Jingsheng, Yuan Rengfeng, Zhang Yanqing, Jiang Jinghe, “Measurement of Radiation Induced Interface Traps of PMOS Transistor with BF_2~+ Implanted Poly Gate”, Atomic Energy Science and Technology, Vol.04,2000

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