

北京大学物理学院凝聚态物理与材料物理所

# 凝聚态物理-北京大学论坛

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2014年第16期 (No.321 since 2001)

## The Developing Status and Challenge for Non-volatile Memory

刘明 研究员

**刘明：** 中国科学院微电子研究所研究员，主要从事纳米加工、新型存储器研究。973项目首席科学家、国家杰出青年基金获得者和基金委创新群体负责人。发表SCI收录论文212篇，SCI他引用超过2000次，3篇论文入选 High cited paper (Top 1%)。获得中国授权发明专利113项、美国授权发明专利6项。

**Abstract:** As the semiconductor device continues scaling down, conventional Flash memory is facing more and more bottlenecks and will be very difficult to go through 16 nm node. According to the white paper of ITRS 2011, STT-MRAM and RRAM are thought as the most promising technologies among various emerging non-volatile memory concepts, and are worthy to put additional focuses on research and development to accelerate the progress toward commercialization. In this talk, semiconductor memory will be summarized, especially focus on flash memory. Then, a brief introduction on RRAM technology will be given and its opportunities & challenges will be discussed. Lastly, research works of RRAM in IMECAS will be introduced.

**时间：** 9月25日（星期四）15:00—16:30

**地点：** 北京大学物理大楼中212教室

**联系人：** 方哲宇 研究员 邮箱: zhyfang@pku.edu.cn

Photograph by Xiaodong Hu