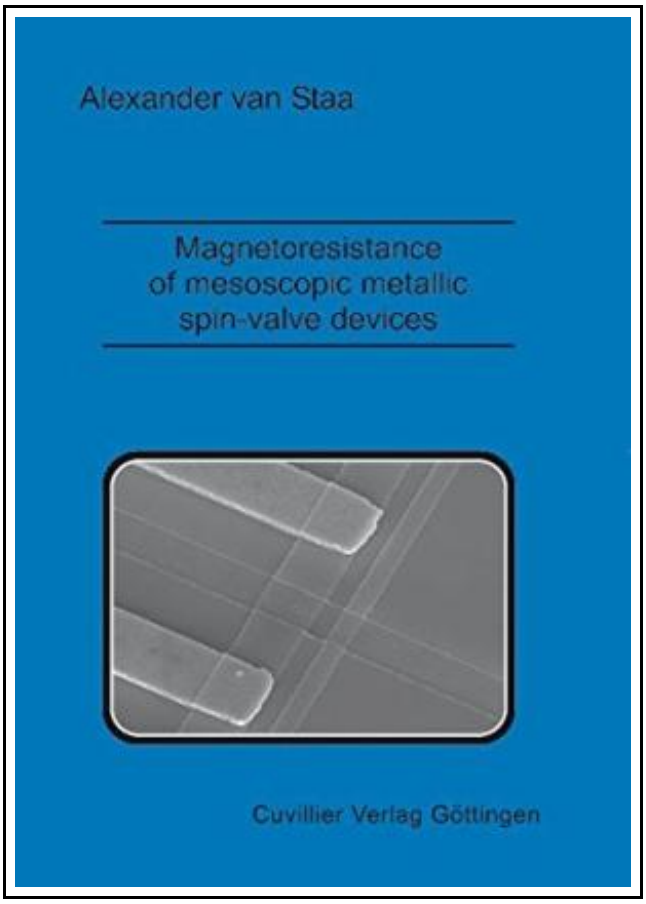
Magnetoresistance of mesoscopic metallic spin-valve devices



Filesize: 9.65 MB

Reviews

This published publication is excellent. This really is for all who statte there had not been a well worth studying. I am very happy to inform you that this is the very best ebook i have read through within my very own daily life and could be he greatest pdf for possibly.

(Mrs. Maybelle Gleason DDS)

MAGNETORESISTANCE OF MESOSCOPIC METALLIC SPIN-VALVE DEVICES

Cuvillier Verlag Aug 2006, 2006. Taschenbuch. Condition: Neu. Neuware - Spin-polarized transport in all-metal spin-valve devices consisting of two bar-shaped permalloy electrodes and an interconnecting aluminum strip are studied in this thesis. Two different geometries are realized: one has a planar aluminum strip, the other has planar permalloy electrodes. The anisotropic magnetoresistance of the electrodes and the magnetoresistance of the entire device are measured in the same cooling cycles at liquid helium temperatures and above. The mesoscopic spin-valve effect is observed in samples with both layouts. The spin-valve effect can be clearly distinguished from parasitic effects, namely the anisotropic magnetoresistance and the local Hall effect. The magnitude of the spin-valve effect and its temperature dependence show good agreement with a theoretical estimation based on diffusive transport. The micromagnetic behavior of the permalloy electrodes is explored with a magnetic-force microscope at room temperature and with measurements of the anisotropic magnetoresistance at low temperatures. Tunnel barriers at the interfaces between the ferromagnets and the normal metal are predicted to increase the spin-injection efficiency. Therefore, the natural oxidation of aluminum in pure oxygen is studied with non-magnetic tunnel junctions. Aluminum oxide tunnel barriers are fabricated successfully both in an evaporation chamber and in a multi-target sputter-deposition system. The latter enables the in situ fabrication of high quality interfaces with aluminum oxide tunnel barriers. 63 pp. Englisch.

Other Books

Autonomous Resource Management in Dynamic Data Centers

Shaker Verlag Mrz 2013, 2013. Taschenbuch. Condition: Neu. Neuware - Software as a Service (SaaS) providers offer customers easy and spontaneous access to applications that are usually run on virtualized hardware. While virtualization enables flexible...

Download PDF »

Operations and the Management of Change [Taschenbuch] by Gilgeous, Vic

Financial Times Prentice Hall, 1997. Taschenbuch. Condition: Neu. Gebraucht - Wie neu Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Written in a straightforward, well structured style, this book...

Download PDF »

You and Your Money: A No-Stress Guide to Becoming Financially Fit [Taschenbuc.

Financial Times Prentice Hall, 2007. Taschenbuch. Condition: Neu. Unbenutzte Restauflage Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - 'With over 70% of American workers living paycheck to paycheck, basic...

Download PDF »

Your Credit Score: How to Improve the 3-Digit Number That Shapes Your Financi.

Financial Times Prentice Hall, 2011. Taschenbuch. Condition: Neu. Gebraucht - Wie neu Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Today, a good credit score is essential for getting...

Download PDF »

Business books (Book Guide)

Reference Series Books LLC Mrz 2012, 2012. Taschenbuch. Condition: Neu. Neuware - Source: Wikipedia. Commentary (books not included). Pages: 89. Chapters: Peter Principle, Airlines of North America, The Dilbert principle, The Joy of Work, The...

Download PDF »