

Ways to increase the density of information recording in magnetic film

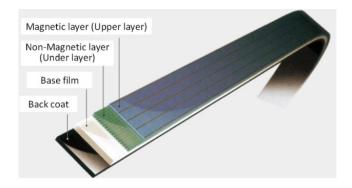
Mnatsakanov Anton

Discovery and development of magnetic recording Waldemar Poulsen



Figure: The first magnetic recording device.

The structure of the layers of magnetic tape.



Layers materials

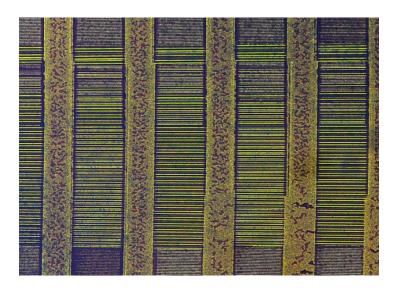
 Fe_2O_3

CrO₂

 $Fe_2O_3 + CrO_2$

Fe

Magnetic bits in a floppy disk



New developments

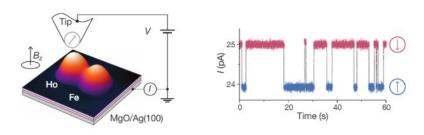
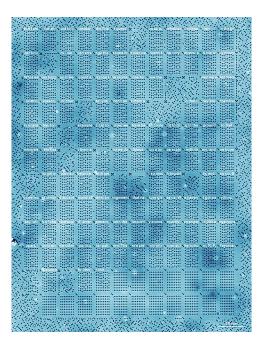


Figure: Scheme of the experiment (left). Reading the states of atoms (right).



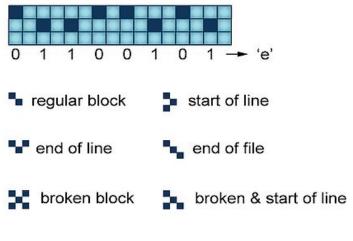


Figure: The principle of coding information

- [1] https://habr.com/ru/post/422851/
- [2] https://nplus1.ru/news/2017/03/09/information-density-record
- [3] II International Scientific Practical Conference of graduate and postgraduate students, lecturers «APPLIED ISSUES OF EXACT SCIENCES» 19-20 October 2018,
 Armavir(http://amti.esrae.ru/pdf/2018/3(1)/197.pdf)
- [4] https://compress.ru/article.aspx?id=10717part=31ext1
- [5] https://compress.ru/article.aspx?id=10717
- [6] https://aip.scitation.org/doi/10.1063/1.1953879
- [7] Heat Assisted Magnetic Recording

Thanks for Your attention!