

Magnetism World

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Abstract

This work aims to systematically, yet in a handy manner, describe the phenomenon of magnetism, in a website format, named <http://magworld.physics.auth.gr>. In this website, even the less experienced visitor may easily navigate through the history of magnetism, get familiarized with basic concepts and metrology of magnetic quantities. Magnetic materials are classified with respect to their lateral dimensions: Macro-, Micro- and Nano- scale. For each family of materials, corresponding formulations, properties, effects, and applications are described in detail while automatic estimation sheets, useful for researchers working on magnetism related topics, evaluate magnetic quantities in simple steps. Quizzes of variable difficulty also exist, where students of any level may self-evaluate what they have learned by exploring this site. Information appearing on this website is based on the collection, categorization and evaluation of magnetism-related information published in international journals and books. On a year-basis, the website is updated with relevant information to serve as the magnetism's reference database for modern scientific and technological applications. This website's goal is to provide an on-line reference information database, practical and useful for tutors, students, and researchers interested to enter the wonderful world of magnetism.

Keywords: magnetism; magnetic materials; magnetic properties; nanomagnetism; magnetic applications