IEEE.org IEEE Xplore IEEE-SA IEEE Spectrum More Sites SUBSCRIBE SUBSCRIBECart Create Account Personal Sign In

Browse My Settings Help Institutional Sign In

Institutional Sign In

All

ADVANCED SEARCH

Conferences > 2011 Fifth International Conf...

A simulation based comparative study of two broadband probes for NMR of magnetically ordered materials

Publisher: IEEE

Cite This PDF

José F. M. L. Mariano ; Mircea Rogalski ; Octavian Postolache All Authors

73
Full
Text Views

Export to
Collabratec

Alerts
Manage
Content Alerts

Add to Citation
Alerts

Downl
PDF

Abstract: Nuclear Magnetic Resonance (NMR) is a valuable technique for the investigation of magnetically ordered materials. This paper presents a simulation based comparative study... **View more**

Metadata

Abstract:
Nuclear Magnetic Resonance (NMR) is a valuable technique for the investigation of magnetically ordered materials. This paper presents a simulation based comparative study between the two most used broadband NMR probes: the delay-line probe, introduced by Lowe, Engelsberg and Whitson, and the high-pass, proposed by Panissod. A practical approach concerning the probe characteristics was done using SPICE.

Published in: 2011 Fifth International Conference on Sensing Technology

Date of Conference: 28 Nov.-1 Dec. 2011

Date Added to IEEE *Xplore*: 23 January 2012

ISBN Information:

ISSN Information:

INSPEC Accession Number: 12494716

DOI: 10.1109/ICSensT.2011.6136954

Publisher: IEEE

Conference Location: Palmerston North, New Zealand

More Like This

Soft Magnetic Material Status and Trends in Electric Machines
IEEE Transactions on Industrial Electronics
Published: 2017

Measurement and Modeling of Rotational Core Losses of Soft Magnetic Materials Used in Electrical Machines: A Review
IEEE Transactions on Magnetics
Published: 2008

Show More

Loading [MathJax]/extensions/MathZoom.js

Contents

I. Introduction

Pulse nuclear magnetic resonance (NMR) spectroscopy is a powerful analytical technique which provides extensive chemical information about the composition and structure of unknown compounds. The physical principles of nuclear magnetism and NMR can be found, for example, in the classical text of Abragam [1]. The technique consists of the application of radio frequency (RF) pulses at the resonance frequency, to a tuned LC circuits containing the sample (probe), and the observation of the system response by monitoring the emf induced by the sample in the probe.

Sign in to Continue Reading

IEEE Personal Account
CHANGE USERNAME/PASSWORD

Purchase Details
PAYMENT OPTIONS
VIEW PURCHASED DOCUMENTS

Profile Information
COMMUNICATIONS PREFERENCES
PROFESSION AND EDUCATION
TECHNICAL INTERESTS

Need Help?
US & CANADA: +1 800 678 4333
WORLDWIDE: +1 732 981 0060
CONTACT & SUPPORT

Follow

About IEEE *Xplore* | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies
A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.

© Copyright 2021 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.

IEEE Account
» Change Username/Password
» Update Address

Purchase Details
» Payment Options
» Order History
» View Purchased Documents

Profile Information
» Communications Preferences
» Profession and Education
» Technical Interests

Need Help?
» **US & Canada:** +1 800 678 4333
» **Worldwide:** +1 732 981 0060
» Contact & Support

About IEEE *Xplore* | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.
© Copyright 2021 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.

Loading [MathJax]/extensions/MathZoom.js