

Referências Bibliográficas

- [1] FENICI, R.; BRISINDA, D. Magnetocardiography provides non-invasive three-dimensional electroanatomical imaging of cardiac electrophysiology. **Anatol. J. Cardiol.**, v. 7, n. 1, p. 23-28, 2007.
- [2] MONTEIRO, E. C. Biometrologia: confiabilidade nas biomedições e repercussões éticas. **Metrologia e Instrumentação**, v. 6, p. 6-12, 2007.
- [3] COSTA MONTEIRO, E.; BARBOSA, C. R. H.; LIMA, E. A.; COSTA RIBEIRO, P.; BOECHAT, P. Locating Steel Needles in the Human Body Using a SQUID Magnetometer. **Physics in Medicine and Biology**, v. 45, p. 2389-2402, 2000.
- [4] TENNER, U.; HAUEISEN, J.; NOWAK, H.; LEDER, U.; BRAUER, H. Source localization in an inhomogeneous physical thorax phantom. **Physics in Medicine and Biology**, v. 44, n. 8, p. 1969-1981, 1999.
- [5] COSTA MONTEIRO, E.; BRUNO, A. C.; LOURO, S. R. W.; COSTA, A. F.; COSTA RIBEIRO, P. Magnetic Localization of a Current Dipole Implanted in Dogs. **Phys. in Med. and Biol.**, v. 32, p. 77-86, 1987.
- [6] CUFFIN, B. N.; COHEN, D. Magnetic fields of a dipole in special volume conductor shapes. **IEEE Trans. Biomed. Eng.**, v. BME-24, n. 4, p. 372-381, 1977.
- [7] PURCELL, C. J.; STROINK, G. Moving dipole inverse solutions using realistic torso models. **IEEE Trans. Biomed. Eng.**, v. 38, n. 1, p. 82 - 84, 1991.
- [8] COSTA MONTEIRO, E.; BRUNO, A. C.; COSTA, A. F.; COSTA RIBEIRO, P. Influence of Volume Conductor Heterogeneity on Magnetocardiographic Signals. **Brazilian J. Med. Biol. Res.**, v. 18, p. 5-10, 1985.
- [9] COSTA MONTEIRO, E.; PENNA, S. DELLA; DONATO, L.; LUZIO, S.; ROMANI, G. L.; ERNÉ, G. L. The study of steady magnetic fields associated with primary and secondary ST shift in ischaemic rabbit hearts. **Physiol. Meas.**, v. 18, p. 191-200, 1997.

- [10] ANDRÄ, Wilfried; NOWAK, Hannes **Magnetism in Medicine: A Handbook**, 2. Ed. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2007.
- [11] FERT, A. The origin, development and future of spintronics, **Nobel Lecture**, Estocolmo, Suécia, 2007. Disponível em: <http://nobelprize.org/nobel_prizes/physics/laureates/2007/fert_lecture.pdf>. Acesso em: 20 mar. 2010.
- [12] GRÜNBERG, P. From spinwaves to giant magneto magnetoresistance (GMR) and beyond, **Nobel Lecture**, Estocolmo, Suécia, 2007. Disponível em: <http://nobelprize.org/nobel_prizes/physics/laureates/2007/grunberg_lecture.pdf>. Acesso em: 20 mar. 2010.
- [13] MAHDI, A. E.; PANINA, L.; MAPPS, D. Some new horizons in magnetic sensing: high- T_c SQUIDS, GMR and GMI materials. **Sensors and Actuators A**, v. 105, p. 271–285, 2003.
- [14] GONÇALVES, Lídice Aparecida Pereira **Efeito hall planar e magnetoimpedância gigante em liga ferromagnética amorfa Co₇₀Fe₅Si₁₅B₁₀**. Recife, 2006. Tese de Doutorado – Programa de Pós-graduação em Ciência de Materiais, Universidade Federal de Pernambuco (UFPE).
- [15] MENDES, Kenia Carvalho **Estudo da magneto-impedância gigante e do efeito hall em fitas amorfas de Co_{70.4}Fe_{4.6}Si₁₅B₁₀**. João Pessoa, 2000. Tese de Doutorado – Coordenação de Pós-graduação em Engenharia Elétrica, Universidade Federal da Paraíba (UFPB).
- [16] CAVALCANTI, Flávia Maria Pompéia **Desenvolvimento e caracterização de um transdutor magnético baseado no fenômeno da magnetoimpedância gigante**. Rio de Janeiro, 2005. Dissertação de Mestrado – Programa de Pós-graduação em Metrologia, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio).
- [17] PHAN, Manh-Huong; PENG, Hua-Xin Giant magnetoimpedance materials: Fundamentals and applications. **Progress in Materials Science**, v. 53, p. 323-420, 2008.
- [18] HALL BARBOSA, C. R.; COSTA MONTEIRO, E.; CAVALCANTI, F. M. P. Localization of Magnetic Foreign Bodies in Humans using Magnetic Field Sensors. In: XVII IMEKO World Congress - Metrology in the 3rd

- Millennium, Dubrovnick, Croácia, 2003. **Proceedings of the XVII IMEKO World Congress**, Zagreb: HMD - Croatian Metrology Society, 2003, p.1510 – 1513.
- [19] GUSMÃO, L. A. P.; CAVALCANTI, F. M. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E.; MACHADO, F. L. A. Desenvolvimento de Transdutor Magnético baseado em Magnetoimpedância Gigante. In: 6th International Seminar on Electrical Metrology (SEMETRO), Rio de Janeiro, 2005. **Proceedings of the 6th International Seminar on Electrical Metrology (SEMETRO)**, 2005, p. 158-161.
- [20] RAMOS LOUZADA, D.; HALL BARBOSA, C.; GUSMÃO, L. A. P.; CAVALCANTI, F. M. P.; COSTA MONTEIRO, E.; MACHADO, F. L. A. Desenvolvimento de transdutor de pressão de alta sensibilidade, baseado no fenômeno de magnetoimpedância gigante, para aplicação biomédica. In: XX CBEB - Congresso Brasileiro de Engenharia Biomédica, São Paulo, 2006. **Anais do XX CBEB**, 2006, p. 1267-1270.
- [21] CAVALCANTI, F. M. P.; GUSMÃO, L. A. P.; HALL BARBOSA, C. R.; COSTA MONTEIRO, E.; GONÇALVES, L. A. P.; MACHADO, F. L. A. Characterization of a Magnetic Field Transducer based on the GMI Effect. In: XVIII IMEKO WORLD CONGRESS - Metrology for a Sustainable Development, Rio de Janeiro, 2006. **Proceedings of the XVIII IMEKO WORLD CONGRESS**, 2006, p. 1-4.
- [22] RAMOS LOUZADA, D.; COSTA MONTEIRO, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C. Medição não-invasiva de ondas de pulso arterial utilizando transdutor de pressão MIG. In: IV Latin American Congress on Biomedical Engineering, CLAIB2007, Isla Margarita, Venezuela, 2007. **IFMBE Proceedings CLAIB2007**, Carmen Mueller-Karger, Sara Wong, Alexandra La Cruz (Eds.), 2007, v. 18, p. 436–439.
- [23] CAVALCANTI, F. M. P.; GUSMÃO, L. A. P.; BARBOSA, C. H.; COSTA MONTEIRO, E.; GONÇALVES, L. A. P.; MACHADO, F. L. A. Ring shaped magnetic field transducer based on the GMI effect. **Measurement Science & Technology**, v. 19, p. 1-10, 2008.
- [24] MONTEIRO, E. C.; LESSA, M. L. A Metrologia na Área de Saúde: Garantia da Segurança e da Qualidade dos Equipamentos Eletromédicos. **Engevista**, v. 7, n. 2, p. 51-60, 2005.

- [25] BRENNAN, T. A.; LEAPE, L. L.; LAIRD, N. M. et al. Incidence of adverse events and negligence in hospitalized patients: results of the Harvard Medical Practice Study. **N. Engl. J. Med.**, v. 324, p. 370–376, 1991.
- [26] CINQUEPALMI, J. V. Você pode ser Imortal. **Revista Superinteressante**, ed. 275, fev. 2010.
- [27] OMS. **Organização Mundial da Saúde**. Disponível em: <<http://www.who.int>>. Acesso em: 14 fev. 2010.
- [28] SIM. **Sistema de Informações sobre mortalidade**. Disponível em: <<http://tabnet.datasus.gov.br/cgi/tabcgi.exe?sim/cnv/obtrj.def>>. Acesso em: 14 fev. 2010.
- [29] IBGE. Instituto Brasileiro de Geografia e estatística. **Projeção da população do Brasil por sexo e idade 1980-2050, Revisão 2008**. Disponível em: <http://www.ibge.gov.br/home/estatistica/populacao/projecao_da_populacao/2008/projecao.pdf>. Acesso em: 14 fev. 2010.
- [30] CLARKE, JOHN; BRAGINSKI, ALEX I. **The SQUID Handbook: Vol. II Applications of SQUID's and SQUID systems**, WILEY-VCH Verlag GmbH & Co. KGaA, 2006.
- [31] YAMADA, S.; YAMAGUCHI, I. Magnetocardiograms in Clinical Medicine: Unique Information on Cardiac Ischemia, Arrhythmias, and Fetal Diagnosis. **Internal Medicine**, v. 44, n. 1, p. 1-19, 2005.
- [32] COSTA SILVA, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E. Magnetic Field Transducers based on the Phase Characteristics of GMI Sensors and Aimed to Biomedical Applications. In: The 13th International Conference on Biomedical Engineering, ICBME2008, Singapura, 2008. **Proceedings of the 13th International Conference on Biomedical Engineering**, 2008, v. 23. p. 652-656.
- [33] COSTA SILVA, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E. Transdutor de Pressão para Medição de Ondas de Pulso Arterial, Baseado na Fase do Fenômeno GMI. In: XXI Congresso Brasileiro de Engenharia Biomédica (CBEB2008), Bahia, 2008. **Anais do XXI Congresso Brasileiro de Engenharia Biomédica**, 2008.
- [34] COSTA SILVA, E.; GUSMÃO, L. A. P.; COSTA MONTEIRO, E.; HALL BARBOSA, C. Characterization of the Magnitude Impedance of Ribbon-Shaped GMI Samples and their use in Transducers aimed at Biomedical

- Applications. In: XI International Conference on Advanced Materials, Rio de Janeiro, 2009. **Proceedings of the XI International Conference on Advanced Materials**, 2009.
- [35] COSTA SILVA, E.; HALL BARBOSA, C.; COSTA MONTEIRO, E.; GUSMÃO, L. A. P. GMI impedance Phase Characteristics, focusing on its Dependence with the Frequency of the Excitation current. In: XXXII Brazilian Meeting on Condensed Matter Physics, Águas de Lindóia, São Paulo, 2009. **Anais do XXXII Brazilian Meeting on Condensed Matter Physics**. São Paulo: Sociedade Brasileira de Física (SBF), 2009, p. 141.
- [36] COSTA SILVA, E.; HALL BARBOSA, C.; COSTA MONTEIRO, E.; GUSMAO, L. A. P. Método Computacional Automatizado de Ajuste de Curvas a Dados Experimentais. In: V Congresso Brasileiro de Metrologia, Salvador, Bahia, 2009. **Anais do V Congresso Brasileiro de Metrologia**, 2009.
- [37] COSTA SILVA, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E. High Sensitivity Triaxial Magnetic Field Transducer, Based on the Phase Characteristics of the GMI Effect. In: XIX IMEKO World Congress, Lisboa, 2009. **Proceedings of the XIX IMEKO World Congress**, 2009. p. 1755-1759.
- [38] COSTA SILVA, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E. Transdutor de Pressão, Baseado nas Características de Fase do Efeito GMI, para Detecção de Ondas de Pulso Arterial. In: VIII Seminário Internacional em Engenharia Elétrica (SEMETRO), João Pessoa, Paraíba, 2009. **Anais do VIII SEMETRO**, 2009, p. 1-5.
- [39] PUC-Rio. Pontificia Universidade Católica do Rio de Janeiro. COSTA SILVA, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E.; MACHADO, F. L. A.; POMPEIA, F.; LOUZADA, D. R. **BR n. PI 0902770-0**, 17 de Fevereiro de 2009.
- [40] INMETRO. **Metrologia Científica e Industrial**. Disponível em: <<http://www.inmetro.gov.br/metcientifica/#>>. Acesso em: 20 mar. 2010.
- [41] INMETRO. **Metrologia Legal**. Disponível em: <<http://www.inmetro.gov.br/metlegal/index.asp#>>. Acesso em: 20 mar. 2010.
- [42] DA SILVA, Márcio Cândido **Sistema para avaliação da conformidade de eletrocardiógrafos**. Rio de Janeiro, 2008. Dissertação de Mestrado –

Programa de Pós-graduação em Metrologia, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio).

- [43] OIML. **Organização Internacional de Metrologia Legal**. Disponível em: <<http://www.oiml.org>>. Acesso em: 20 mar. 2010.
- [44] BIPM. **Bureau International des Poids et Mesures**. Disponível em: <<http://www.bipm.org/en/home/>>. Acesso em: 14 fev. 2010.
- [45] INMETRO. **Vocabulário Internacional de Metrologia – Conceitos Fundamentais e Gerais e Termos Associados (VIM 2008)**. 1. Ed., 2009.
- [46] IEC. **International Electrotechnical Commission**. Disponível em: <<http://www.iec.ch/>>. Acesso em: 14 fev. 2010.
- [47] IAEA. **International Atomic Energy Agency**. Disponível em: <<http://www.iaea.org/>>. Acesso em: 14 fev. 2010.
- [48] ISO. **International Organization for Standardization**. Disponível em: <<http://www.iso.org/iso/home.htm>>. Acesso em: 14 fev. 2010.
- [49] IEC. **International Standard, IEC 60601-1**. Medical electrical equipment – Part 1: General requirements for basic safety and essential performance. 3. Ed. Dezembro de 2005.
- [50] INMETRO. **Portaria Inmetro nº 163/2005 – Vocabulário Internacional de Termos de Metrologia Legal**, 2005.
- [51] AZEREDO, R. N.; PEREIRA, R. A. R.; SANT’ANA, F. W.; NETO, J. A. G. Apreciação técnica de modelo de esfigmomanômetros digitais. In: V Congresso Brasileiro de Metrologia, Salvador, Bahia, 2009. **Anais do V Congresso Brasileiro de Metrologia**, 2009.
- [52] INMETRO. **Instituto Nacional de Metrologia, Normalização e Qualidade Industrial**. Disponível em: <<http://www.inmetro.gov.br/>>. Acesso em: 14 fev. 2010.
- [53] ANVISA. **Agência Nacional de Vigilância Sanitária**. Disponível em: <<http://portal.anvisa.gov.br>>. Acesso em: 14 fev. 2010.
- [54] VISALEGIS. **Sistema de Legislação em Vigilância Sanitária**. Disponível em: <<http://www.anvisa.gov.br/e-legis/>>. Acesso em: 14 fev. 2010.
- [55] CNEM. Comissão Nacional de Energia Nuclear. Disponível em: <<http://www.cnen.gov.br/>>. Acesso em: 20 mar. 2010.
- [56] ABNT. **Associação Brasileira de Normas Técnicas**. Disponível em: <<http://www.abnt.org.br/>>. Acesso em: 14 fev. 2010.

- [57] WEYAND, K. et al. Final Report on EUROMET Project No. 446. **Metrologia**, v. 38, p. 187-191, 2001.
- [58] WEYAND, K. et al. Final Report on CCEM Key Comparison CCEM. M-K1, 2005. Disponível em: <http://www.bipm.org/utis/common/pdf/final_reports/EM/M-K1/CCEM.M-K1.pdf>. Acesso em: 14 de Fevereiro de 2010.
- [59] INMETRO. **Norma NIT-DICLA-012**, revisão 11, Relação Padronizada de Serviços de Calibração Acreditados, Rio de Janeiro, 2009.
- [60] BENYOSEF, L. C.C.; MOURILHE SILVA, I. Implantação do laboratório de calibração de bússolas e magnetômetros do observatório nacional. In: VIII Seminário Internacional em Engenharia Elétrica (SEMETRO), 2009, João Pessoa, PB. **Anais do VIII SEMETRO**, 2009.
- [61] CLARKE, JOHN; BRAGINSKI, ALEX I. **The SQUID Handbook: Vol. I Fundamentals and Technology of SQUID's and SQUID systems**, WILEY-VCH Verlag GmbH & Co. KGaA, 2004.
- [62] LENZ, J.; EDELSTEIN, A. S. Magnetic Sensors and Their Applications. **IEEE Sensors Journal**, v. 6, n. 3, p. 631-649, 2006.
- [63] RIPKA, P. **Magnetic Sensors and Magnetometers**, Artech House Publishers, 2001.
- [64] NOR, A. F. M.; HILL, E. W.; BIRTHWISTLE, K.; PARKER, M. R. Noise in NiFeCo/Cu spin valve sensors. **Sens. Actuators A**, v. 81, p. 67–70, 2000.
- [65] VAN DE VEERDONK, R. J. M.; BELIEN, P. J. L.; SCHEP, K. M.; KOOLS, J. C. S.; DE NOOIJER, M. C.; GIJS, M. A. M.; COEHOORN, R.; DE JONGE, W. J. M. 1/f noise in anisotropic and giant magnetoresistive elements. **J. Appl. Phys.**, v. 82, p. 6152–6164, 1997.
- [66] EDELSTEIN, A. S.; FISCHER, G. A. Minimizing 1/f noise in magnetic sensors using a microelectromechanical system flux concentrator. **J. Appl. Phys.**, v. 91, p. 7795–7797, 2002.
- [67] EDELSTEIN, A. S.; FISCHER, G. A.; PEDERSEN, M.; NOWAK, E. R.; CHENG, SHU FAN; NORDMAN, C. A. Progress toward a thousand-fold reduction in 1/f noise in magnetic sensors using an AC MEMS flux concentrator. **J. Appl. Phys.**, v. 99, 08B317, 2006.

- [68] ARAÚJO, Dráulio Barros de; CARNEIRO, A. A. O.; MORAES, E. R.; BAFFA, O. Biomagnetismo: Nova interface entre a física e a biologia. **Revista Ciência Hoje**, v. 26, n. 153, p. 25-33, 1999.
- [69] CARNEIRO, A. A. O.; FERREIRA, A.; MORAES, E. R.; ARAUJO, D. B.; SOSA, M.; BAFFA, O. Biomagnetismo: Aspectos Instrumentais e Aplicações. **Revista Brasileira de Ensino de Física**, v. 22, n. 3, p. 324-338, 2000.
- [70] COHEN, D. Boston and the History of Biomagnetism. **Neurology and Clinical Neurophysiology**, 2004:114, 2004.
- [71] BAULE, G. M.; MCFEE, R. Detection of the magnetic Field of the heart. **American Heart Journal**, v. 66, p. 95-96, 1963.
- [72] BAULE, G. M.; MCFEE, R. Theory of the magnetic detection of the heart's electrical activity. **J. Appl. Phys.**, v. 36, p. 2066-2073, 1965.
- [73] COHEN, D. Magnetic fields around the torso: production by electrical activity of the human heart. **Science**, v. 156, p. 652-654, 1967.
- [74] SAFONOV, YU. D.; POROVOTOROV, V. M.; LUBÉ, V. M.; YAKIMENKOV, L. I. Method of recording the magnetic field of the heart (magnetocardiography). **Bull. Exp. Biol. Med.**, v. 64, p. 1022-1024, 1967.
- [75] COHEN, D. A Shielded facility for low-level magnetic measurements. **J. Appl. Physics.**, v. 38, p. 1295-1296, 1967.
- [76] COHEN, D. Magnetoencephalography: evidence of magnetic fields produced by alpha-rhythm currents. **Science**, v. 161, p. 784-786, 1968.
- [77] COSTA MONTEIRO, E.; MAGALHÃES, J. A. P.; HALL BARBOSA, C. R.; LIMA, E. A.; COSTA RIBEIRO, P. Application of a Cellular Automata Model on the study of Magnetic Detection of Slow-Pathway in Cardiac Tissue. **The European Physical Journal Applied Physics**, v. 10, n. 1, p. 67-71, 2000.
- [78] COSTA MONTEIRO, E.; SCHLEUSSNER, E.; KAUSCH, S.; GRIMM, B.; SCHNEIDER, A.; BARBOSA, C. R. H.; HAUEISEN, J. Fetal Cardiac Activity Analysis During Twin Pregnancy Using a Multi-Channel SQUID System. **Physica C: Superconductivity**, v. 354, p. 87-90, 2001.
- [79] COSTA MONTEIRO, E.; EISELT, M.; GIESSLER, F.; HAUEISEN, J.; BARBOSA, C. R. H.; LIMA, E. A. Animal Experimentation Study of Atrial Activity Propagation Using a Multi-channel SQUID System. **Biomedizinische Technik. Ergänzungsband (Berlin)**, v. 46, p. 70-72, 2001.

- [80] COSTA MONTEIRO, E.; BARBOSA, C. R. H.; EISELT, M.; GIESSLER, F.; HAUEISEN, J. Magnetic imaging of electrical propagation at the apex of isolated rabbit heart. **Biomedizinische Technik. Supplement (Berlin)**, v. 48, p. 168-170, 2004.
- [81] BRISINDA, D.; MELONI, A. M.; FENICI, R. Contactless magnetocardiographic study of ventricular repolarization in intact Wistar rats: Evidence of gender-related differences. **Basic Res. Cardiol.**, v. 99, p. 193–203, 2004.
- [82] COSTA MONTEIRO, E.; HALL BARBOSA, C. R.; ANDRADE LIMA, E.; EISELT, M.; GIEALER, F.; HAUEISEN, J. Experimental Detection of Reflected Reentry Propagation in Rabbit Atrial Tissue Using a Multi-ChannelSQUID System. In: The 13th International Conference on Biomagnetism, Jena, Germany, 2002. **Proceedings of 13th International Conference on Biomagnetism**, 2002, p. 509–511.
- [83] WALLER, A. D. A demonstration on man of electromotive changes accompanying the heart's beat. **J. Physiol.**, v. 8, p. 229–234, 1887.
- [84] ALVAREZ, W.C. The electrogastrogram and what it shows. **J. Am. Med. Assoc.**, v. 78, p. 1116–1119, 1922.
- [85] BERGER, H. Uber das Electrenkephalogramm des Menschen, **Arch. Psychiat. Nervenkr.**, v. 7, p. 527–570, 1929.
- [86] FIGUEIREDO, PAULO HENRIQUE. **Mesmer – A ciência negada e os textos escondidos**. Lachatre, 2005.
- [87] ZIMMERMAN, J. E.; THIENE, P.; HARDING, J. T. Design and operation of stable rf-biased superconducting point-contact quantum devices, and a note on the properties of perfectly clean metal contacts. **J. Appl. Phys.**, v. 41, p. 1572-1580, 1970.
- [88] COHEN, D.; EDELSACK, E. A.; ZIMMERMAN, J. E. Magnetocardiograms taken inside a shielded room with a superconducting point-contact magnetometer. **Appl. Phys. Lett.**, v. 16, p. 278- 280, 1970.
- [89] NAKAYA, Y.; SUMI, M.; SAITO, K.; FUJINO, K.; MURAKAMI, M.; MORI, H. Analysis of current source of the heart using isomagnetic and vector arrow maps. **Japan Heart J.**, v. 25, p. 701–711, 1984.

- [90] MACAULAY, C. E.; STRONIK, G.; HORACEK, B. M. Analysis of MCG maps during the PR-interval. **Med. Bio. Eng. Comput.**, v. 23, p. 1479-1480, 1985.
- [91] BIOMAG2004. **The 14th International Conference on Biomagnetism**. Disponível em: <<http://www.biomag2004.net>>. Acesso em: 04 de Janeiro de 2010.
- [92] BIOMAG2010. **The 17th International Conference on Biomagnetism**. Disponível em: <<http://www.biomag2010.org/>>. Acesso em: 04 de Janeiro de 2010.
- [93] FAUCI, A. S.; BRAUNWALD, E.; KASPER, D. L.; HAUSER, S. L.; LONGO, D. L.; JAMESON, J. L.; LOSCALZO, J. **Harrison: Medicina Interna**. 17. Ed. Mc-Graw Hill Interamericana do Brasil, Rio de Janeiro, 2008.
- [94] LOUZADA, Daniel Ramos **Desenvolvimento de um transdutor de pressão de alta sensibilidade, baseado no fenômeno de magnetoimpedância gigante, para aplicação biomédica**. Rio de Janeiro, 2006. Dissertação de Mestrado – Programa de Pós-graduação em Metrologia, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio).
- [95] GARCIA, E. A. C. **Biofísica**. 1. Ed., Sarvier Editora de Livros Médicos Ltda., São Paulo, 2002.
- [96] GITTENBERGER-DE GROOT, A. C. Elucidating coronary arterial anatomy or simplifying coronary arterial nomenclature. **International Journal of Cardiology**, v. 12, p. 305-307, 1986.
- [97] DOI, T.; HAYANO, S.; SAITO, Y. Space power method for human heart diagnosis. **IEEE Trans. Mag.**, v. 31, n. 6, p. 4262-4264, 1995.
- [98] TAVAROZZI, I.; COMANI, S.; DEL GATTA, C.; DI LUZIO, S. et al. Magnetocardiography: current status and perspectives: II. Clinical applications, **Italian Heart J.**, v. 3, p. 151–165, 2002.
- [99] MÄKIJÄRVI, M.; HÄNNINEN, H.; KORHONEN, P.; MONTONEN, J. et al. Clinical application of magnetocardiographic mapping. M. Shenasa, M. Borggreffe, and G. Breithardt (Eds.), **Cardiac Mapping**, Blackwell/Futura Division, Elmsford, NY, p. 475–486, 2003.

- [100] FENICI, R.; BRISINDA, D.; MELONI, A. M. Clinical application of magnetocardiography. **Expert Rev. of Molec. Diagnost.**, v. 5, p. 291–313, 2005.
- [101] LENZ, J. E. A review of magnetic sensors. **Proc. IEEE**, v. 78, n. 6, p. 973–989, 1990.
- [102] BOLL, RICHARD; OVERSHOTT, KENNETH J. **Sensors: A Comprehensive Survey – Vol. 5: Magnetic Sensors**, Wiley-VCH, 1989.
- [103] JOSEPHSON, B. D. Possible new effects in superconductive tunneling. **Phys. Lett.**, v. 1, p. 251–253, 1962.
- [104] NOGUEIRA FROTA, M.; OHAYON, P. **Padrões e Unidades de Medida, Referências Metrológicas da França e do Brasil**. Bureau National de Métrologie (BNM) e Laboratório Nacional de Metrologia (LNM-INMETRO), 1998.
- [105] LANDIM, R. P.; AFONSO, E.; FERREIRA, V. Padrões de Tensão baseados no efeito Josephson. **Metrologia & Instrumentação**, n. 45, p. 30-39, 2007.
- [106] MAHDI, A. E.; MAPPS, D. J. High-Tc SQUIDS: the ultra sensitive sensors for non-destructive testing and biomagnetism. **Sens. Actuators A: Phys.**, v. 81, n. 1–3, p. 367–370, 2000.
- [107] WU, M. K.; ASHBURN, J. R.; TORNG, C. J.; HOR, P. H.; MENG, R. L. Superconductivity at 93 K in a new mixed-phase Y-Ba-Cu-O compound system at ambient pressure. **Phys. Rev. Lett.**, v. 58, p. 908–910, 1987.
- [108] RIPKA, P. Advances in fluxgate sensors. **Sensors and Actuators A**, v. 106, p. 8–14, 2003.
- [109] JANICKE, J. M. Second harmonic fluxgate sensors and magnetometers. **Sensor Rev.**, v. 18, n. 4, p. 225–229, 1998.
- [110] SOUSA, P. L.; CARNEIRO, A. A. O.; BAFFA, O. Magnetômetro de Fluxo Saturado (Fluxgate) com Alta Sensibilidade para Aplicações em Biomagnetismo. **Revista de Física Aplicada e Instrumentação**, v. 12, n. 2, p. 37-47, 1997.
- [111] ROCHFORD, K. B.; ESPEJO, R. J.; ROSE, A. H.; DYER, S. D. Improved Fiber-Optic Magnetometer Based on Iron Garnet Crystals. In: 14th Optical Fiber Sensors Conf., Italy, 2000. **Proc. of the 14th Optical Fiber Sensors Conf.**, 2000, p. 332-335.

- [112] CRANCH, G. A.; FLOCKHART, G. M. H.; KIRKENDALL, C. K. High-resolution distributed-feedback fiber laser dc magnetometer based on the Lorentzian force. **Meas. Sci. Technol.**, v. 20, 034023, 2009.
- [113] KOO, KEE P.; DANDRIDGE, A.; TVETEN, A. B.; SIGEL JR., G.H. **Fiber optic magnetometer for detecting DC magnetic fields**. United States Patent 4600885, 15 de Maio de 1984.
- [114] SMITH, C. H.; SCHNEIDER, R. W. Magnetic field sensing utilizing GMR materials. **Sens. Rev.**, v. 18, n. 4, p. 230–236, 1998.
- [115] TUMANSKI, S. **Thin Film Magnetoresistive Sensors**. Bristol, U.K.: Inst. Phys., 2001.
- [116] MAPPS, D. J. Magnetoresistive sensors. **Sens. Actuators A**, v. 59, p. 9–19, 1997.
- [117] BAIBICH, M. N.; BROTO, J. M.; FERT, A.; VAN DAU, F.N.; PETROFF, F. Giant magnetoresistance of (001)Fe/(001)Cr magnetic superlattices. **Phys. Rev. Lett.**, v. 61, p. 2472–2475, 1988.
- [118] MCGUIRE, T. R. Anisotropic magnetoresistance in ferromagnetic 3d alloys. **IEEE Trans. Magn.**, v. 11, n. 4, p. 1018–1038, 1975.
- [119] LEE, W. Y.; TONEY, M. F.; MAURI, D. High magnetoresistance in sputtered Permalloy thin films through growth on seed layers of $(\text{Ni}_{0,81}\text{Fe}_{0,19})_{1-x}\text{Cr}_x$. **IEEE Trans. Magn.**, v. 36, n. 1, p. 381–385, 2000.
- [120] MOODERA, J. S.; Kinder, L. R.; WONG, T. M.; MESERVEY, R. Large magnetoresistance at room temperature in ferromagnetic thin film tunnel junctions. **Phys. Rev. Lett.**, v. 74, n. 16, p. 3273–2376, 1995.
- [121] PARKIN, S. S. P.; KAISER, C.; PANCHULA, A.; RICE, P. M.; HUGHES, B.; MAHESH, S.; YANG, SEE-HUN Giant tunnelling magnetoresistance at room temperature with MgO (100) tunnel barriers. **Nature Mater.**, v. 3, p. 862–867, 2004.
- [122] KAMMERER, J. B.; HEBRARD, L.; HEHN, M.; BRAUN, F.; ALNOT, P.; SCHUHL, A. A two-axis magnetometer using a single magnetic tunnel junction. **IEEE Sensors J.**, v. 4, n. 3, p. 313–321, 2004.
- [123] SOLIN, S. A.; THIO, T.; HINES, D. R.; HEREMANS, J. J. Enhanced room-temperature geometric magnetoresistance in inhomogeneous narrow-gap semiconductors. **Science**, v. 289, p. 1530–1532, 2000.

- [124] MOUSSA, J.; RAM-MOHAN, L. R.; ROWE, A. C. H.; SOLIN, S. A. Response of an extraordinary magnetoresistance read head to a magnetic bit. **J. Appl. Phys.**, v. 94, p. 1110–1114, 2003.
- [125] TATARA, G.; ZHAO, Y. W.; MUÑOZ, M.; GARCIA, N. Domain wall scattering explains 300% ballistic magnetoconductance of nanocontacts. **Phys. Rev. Lett.**, v. 83, p. 2030–2033, 1999.
- [126] CHOPRA, H. D.; HUA, S. Z. Ballistic magnetoresistance over 3000% in Ni nanocontacts at room temperature. **Phys. Rev. B**, v. 66, 020403, 2002.
- [127] VALENSUELA, R.; VAZQUEZ, M.; HERNANDO, A. A position sensor based on magnetoimpedance. **J. Appl. Phys.**, v. 79, p. 6549–6591, 1996.
- [128] HAUSER, H.; STEINDL, R.; HAUSLEITNER, C.; POHL, A.; NICOLICS, J. Wirelessly interrogable magnetic field sensor utilizing giant magnetoimpedance effect and surface acoustic wave devices. **IEEE Instrum. Meas.**, v. 49, p. 648–652, 2000.
- [129] HONKURA, Y. Development of amorphous wire type MI sensors for automobile use. **J. Magn. Magn. Mater.**, v. 249, p. 375–377, 2002.
- [130] DELOOZE, P.; PANINA, L. V.; MAPPS, D. J.; UENO, K.; SANO, H. Effect of transverse magnetic field on thin film magnetoimpedance and application to magnetic recording. **J. Magn. Magn. Mater.**, v. 272–276, p. 2266–2268, 2004.
- [131] UCHIYAWA, T.; MOHRI, K.; ITHO, H.; NAKASHIMA, K.; OHUCHI, J.; SUDO, Y. Car traffic monitoring system using MI sensor built-in disk set on the road. **IEEE Trans. Magn.**, v. 36, p. 3670–3672, 2000.
- [132] KIM, D. J.; PARK, D. G.; HONG, J. H. Nondestructive evaluation of reactor pressure vessel steels using the giant magnetoimpedance sensor. **J. Appl. Phys.**, v. 91, n. 10, p. 7421–7423, 2002.
- [133] KURLYANDSKAYA, G. V.; SANCHEZ M. L.; HERNANDO, B.; PRIDA, V. M.; GORRIA, P.; TEJEDOR, M. Giant magnetoimpedancebased sensitive element as a model for biosensors. **Appl. Phys. Lett.**, v. 82, p. 3053–3055, 2003.
- [134] KURLYANDSKAYA, G. V.; MIYAR, V. F. Surface modified amorphous ribbon based magnetoimpedance biosensor. **Biosensors and Bioelectronics**, v. 22, p. 2341–2345, 2007.

- [135] TOTSU, K.; HAGA, Y.; ESASHI, M. Three-axis magnetoimpedance effect sensor system for detecting position and orientation of catheter tip. **Sens. Actuators A**, v. 111, p. 304–309, 2004.
- [136] CHIRIAC, H.; TIBU, M.; MOGA, A. E.; HEREA, D. D. Magnetic GMI sensor for detection of biomolecules. **J. Magn. Magn. Mater.**, v. 293, p. 671–673, 2005.
- [137] UCHIYAMA, T.; NAKAYAMA, S.; MOHRI, K.; BUSHIDA, K. Biomagnetic field detection using very high sensitivity magnetoimpedance sensors for medical applications. **Phys. Status Solidi A**, v. 206, n. 4, p. 639–643, 2009.
- [138] MAGER, A. Large Magnetic Shields. **J. Magn. Magn. Mater.**, v. 2, p. 245-255, 1976.
- [139] BAUM, E.; BORK, J. Systematic design of magnetic shields. **J. Magn. Magn. Mat.**, v. 101, p. 69-74, 1991.
- [140] BORK, J.; HAHLBOHM, H. D.; KLEIN, R.; SCHNABEL, A. The 8-layered magnetically shielded room of the PTB: Design and construction. In: Biomag2000, 12th Int. Conf. on Biomagnetism, Finlândia, 2000. **Proc. 12th Int. Conf. on Biomagnetism**, J. Nenonen, R.J. Ilmoniemi, and T. Katila (Eds.), Helsinki Univ. of Technology, Espoo, Finland, 2001, p. 970-973.
- [141] HARAKAWA, K.; KAJIWARA, G.; KAZAMI, K.; OGATA, H.; KADO, H. Evaluation of a highperformance magnetically shielded room for biomagnetic measurement. **IEEE Trans. Mag.**, v. 32, p. 5226-5259, 1996.
- [142] ERNÉ, S.; HAHLBOHM, H. D.; SCHEER, H.; TRONTELJ, Z. The Berlin magnetically shielded room (BMSR), Section B: Performances. **Biomagnetism**, Berlin: Walter de Gruyter, 1981, p. 79–87.
- [143] MATSUBA, H.; SHINTOMI, K.; YAHARA, A.; IRISAWA, D.; IMAI, K.; YOSHIDA, H.; SEIKE, S. Superconducting shield enclosing a human body for biomagnetism measurement. **Biomagnetism: Fundamental Research and Clinical applications**, Elsevier Science, IOS Press, Amsterdam, 1995, p. 483-489.
- [144] OHTA, H.; MATSUI, T.; UCHIKAWA, Y. Whole-head SQUID system in a superconducting magnetic shield. In: BIOMAG2004, The 14th Int. Conf. in Biomagnetism, Boston, USA. **Proc. of the 14th Int. Conf. in Biomagnetism**, 2004, p. 634-635.

- [145] TER BRAKE, H. J. M.; HUONKER, R.; ROGALLA, H. New results in active noise compensation for magnetically shielded rooms. **Meas. Sci. Technol.**, v. 4, p. 1370-1375, 1993.
- [146] PLATZEK, D.; NOWAK, H.; GIESSLER, F.; RÖTHER, J.; EISELT, M. Active shielding to reduce low frequency disturbances in direct current near biomagnetic measurements. **Rev. Sci. Instrum.**, v. 70, n. 5, p. 2465-2470, 1999.
- [147] KATO, K.; YAMAZAKI, K.; SATO, T.; HAGA, A.; OKITSU, T.; MURAMATSU, K.; UEDA, T.; KOBAYASHI, K.; YOSHIZAWA, M. Active Magnetic Compensation Composed of Shielding Panels. **Neurology and Clinical Neurophysiology**, 2004:68, 2004.
- [148] GONÇALVES, L. A. P.; SOARES, J. M.; MACHADO, F. L. A.; DE AZEVEDO, W. M. GMI effect in the low magnetostrictive CoFeSiB alloys. **Physica B**, v. 384, p. 152-154, 2006.
- [149] MACHADO, F. L. A.; REZENDE, S. M. A theoretical model for the giant magnetoimpedance in ribbons of amorphous soft-ferromagnetic alloys. **J. Appl. Phys.**, v. 79, p. 6958–6960, 1996.
- [150] KNOBEL, V.; PIROTA, K. R. Giant magnetoimpedance concepts and recent progress. **J. Magn. Magn. Mater.**, v. 242, p. 33–40, 2002.
- [151] PIROTA, K. R.; KNOBEL, M.; GOMEZ-POLO, C. Recent experiments and models on giant magnetoimpedance. **Physica B**, v. 320, p. 127–134, 2002.
- [152] HAUSER, H.; KRAUS, L.; RIPKA, P. Giant magnetoimpedance sensors. **IEEE Instrum. Meas. Mag.**, v. 4, n. 2, p. 28–32, 2001.
- [153] KRAUS, L. GMI modeling and material optimization. **Sens. Actuators A**, v. 106, p. 187–194, 2003.
- [154] LANDAU, L. D.; LIFSHITZ, E. M. **Electrodynamics of continuous media**. Oxford: Pergamon Press, 1975.
- [155] MENARD, D.; BRITEL, M.; CIUREANU, P.; YELON, A. Giant magnetoimpedance in a cylindrical magnetic conductor. **J. Appl. Phys.**, v. 84, p. 2805–2814, 1998.
- [156] KRAUS, L. Theory of giant magneto-impedance in the planar conductor with uniaxial magnetic anisotropy. **J. Magn. Magn. Mater.**, v. 195, p. 764–778, 1999.

- [157] PANINA, L. V.; MOHRI, K. Magneto-impedance effect in amorphous wires. **Applied Physics Letters**, v. 65, n. 9, p. 1189-1194, 1994.
- [158] PACHECO, Clara Johanna. **Aplicação de Materiais com Magnetostricção Gigante em sensores de Deslocamento sem Contacto**. Rio de Janeiro, 2007. Dissertação de Mestrado – Programa de Pós-graduação em Física, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio).
- [159] PHAN, M. H.; PENG, H. X.; WISNOM, M. R.; YU, S. C.; NGHI, N. H.; KIM, C. G. Effect of annealing temperature on permeability and giant magneto-impedance of Fe-based amorphous ribbon. **Sens. Actuators A**, v. 129, p. 62–65, 2006.
- [160] PHAN, M. H.; PENG, H. X.; WISNOM, M. R.; YU, S. C. Giant magnetoimpedance effect in ultrasoft FeAlSiBCuNb nanocomposites for sensor applications. **J. Appl. Phys.**, v. 98, 014316, 2005.
- [161] KOLANO, R.; KUZMINSKI, M.; GAWIOR, W.; WOJCIK, N. Induced transverse magnetic anisotropy and domain structure in Co-based amorphous ribbons. **J. Magn. Magn. Mater.**, v. 133, p. 321–324, 1994.
- [162] PIROTA, K. R. Magnetoimpedância Gigante em Materiais Ferromagnéticos Amorfofos: Uma Breve Introdução. **Revista Physicae**, v. 1, p. 37-44, 2000.
- [163] KNOBEL, M.; TURTELLI, R. S.; GRÖSSIGER, R. Magnetic Properties of Amorphous $\text{Co}_{70-x}\text{Fe}_x\text{Si}_{15}\text{B}_{10}$ ($0 < x < 50$). **Journal of Magnetism and Magnetic Materials**, v. 116, p. 154-158, 1992.
- [164] TURTELLI, R. S.; MACHADO, F. L. A. Frequency-domain thermo-magnet memory effect in the $\text{Co}_{75-x}\text{Fe}_x\text{Si}_{15}\text{B}_{10}$ alloys. **IEEE Transactions on Magnetics**, v. 25, n. 5, p. 3350-3351, 1989.
- [165] LUBORSKY, F. E. Amorphous Ferromagnets. **Ferromagnetic Materials**, E. P. Wohlfarth (Ed.), v.1, 1980.
- [166] PANINA, L. V.; MOHRI, K.; UCHIYAMA, T.; NODA, M.; BUSHIDA, K. Giant magneto-impedance in Co-rich amorphous wires and films. **IEEE Transactions on Magnetics**, v. 31, n. 2, p.1249-1260, 1995.
- [167] MOHRI, K.; KAWASHIMA, K.; KOHZAWA, T.; YOSHIDA, H. Magneto-inductive element. **IEEE Transactions on Magnetics**, v. 29, n. 2, p. 1245-1248, 1993.

- [168] BEACH, R. S.; BERKOWITZ, E. Sensitive Field and Frequency-Dependence Impedance Spectra of FeCoSiB Wire and Ribbon. **Journal of Applied Physics**, v.76, n.10, p. 6209-6213, 1994.
- [169] YELON, A.; MENARD, D.; BRITTEL, M.; CIUREANU, P. Calculations of giant magnetoimpedance and of ferromagnetic resonance response are rigorously equivalent. **Appl. Phys. Lett.**, v. 69, p. 3084–3085, 1996.
- [170] MACHADO, F. L. A.; RODRIGUES, A. R.; PUÇA, A. A.; DE ARAÚJO, A. E. P. Highly Asymmetric Giant Magnetoimpedance. **Mater. Sci. Forum**, v. 302-303, n. 202-208, 1999.
- [171] BYON, K. S.; YU, S. C.; KIM, C. G.; YOON, S. S. Asymmetric characteristics of magnetoimpedance in amorphous Fe_{77.5}Si_{7.5}B₁₅ wire. **J. Magn. Magn. Mater.**, v. 226–230, p. 718–720, 2001.
- [172] PHAN, M. H.; YU, S. C.; KIM, C. G.; VAZQUEZ, M. Origin of asymmetrical magnetoimpedance in a Co-based amorphous microwire due to dc bias current. **Appl. Phys. Lett.**, v. 83, p. 2871–2873, 2003.
- [173] MAKHNOVSKIY, D. P.; PANINA, L. V.; MAPPS, D. J. Asymmetric Magnetoimpedance in as-cast CoFeSiB Amorphous Wires due to ac Bias. **Appl. Phys. Lett.**, v. 77, p. 121-123, 2000.
- [174] MAKHANOVSKIY, D. P.; PANINA, L. V.; MAPPS, D. J. Field-dependent surface impedance tensor in amorphous wires with two types of magnetic anisotropy: Helical and circumferential. **Phys. Rev. B**, v. 63, 144424, 2001.
- [175] PANINA, L. V. Asymmetrical giant magneto-impedance (AGMI) in amorphous wires. **Journal of Magnetism and Magnetic Materials**. v. 249, p. 278-287, 2002.
- [176] KIM, C. G.; JANG, K. J.; KIM, H. C.; YOON, S. S. Asymmetric giant magnetoimpedance in field-annealing Co-based amorphous ribbon **J. Appl. Phys.**, v. 85, p. 5447-5449, 1999.
- [177] BUZNIKOV, N. A.; KIM, C. G.; KIM, C. O.; YOON, S. S. A model for asymmetric giant magnetoimpedance in fieldannealed amorphous ribbons. **Appl. Phys. Lett.**, v. 85, p. 3507–3509, 2004.
- [178] MEHRABIAN, R.; KEAR, B. H.; COHEN, M. **Rapid solidification processing: principles and technologies**. Baton, Rouge, LA: Claitor's Pub. Div., 1978, p. 78–83.

- [179] COISSON, M.; TIBERTO, P.; VINAI, F. Magnetoimpedance effect in nanocrystalline $\text{Fe}_{86}\text{Zr}_7\text{B}_6\text{Cu}_1$ melt-spun ribbons. **Phys. Stat. Soli. A**, v. 189, n. 3, p. 711-715, 2002.
- [180] OHNAKA, I.; FUKUSAKO, T.; MATUI, T. Preparation of amorphous wires. **J. Jpn. Inst. Met.**, v. 45, p. 751–762, 1981.
- [181] NDERU, J. N.; SHINOKAWA, Y.; YAMASAKI, J.; HUMPHREY, F. B.; OGASAWARA, I. Dependence of magnetic properties of $(\text{Fe}_{50}\text{Co}_{50})_{78}\text{Si}_7\text{B}_{15}$ amorphous wire on the diameter. **IEEE Trans. Magn.**, v. 32, p. 4878–4880, 1996.
- [182] TAYLOR, G. F. A method of drawing metallic filaments and a discussion of their properties and uses. **Phys. Rev.**, v. 23, p. 655–660, 1924.
- [183] DONALD, I. W. Production, properties and applications of microwire and related products. **J. Mater. Sci.**, v. 22, p. 2261–2279, 1987.
- [184] WIESNER, H.; SCHNEIDER, J. Magnetic properties of amorphous FeP alloys containing Ga, Ge, and As. **Phys. Stat. Soli. A**, v. 26, p. 71–75, 1974.
- [185] CHIRIAC, H. Preparation and characterization of glass covered magnetic wire. **Mater. Sci. Eng. A**, v. 304–306, p. 166–171, 2001.
- [186] LARIN, V. S.; TORCUNOV, A. V.; ZHUKOV, A.; GONZALEZ, J.; VAZQUEZ, M.; PANINA, L. Preparation and properties of glass-coated microwires. **J. Magn. Magn. Mater.**, v. 249, p. 39–45, 2002.
- [187] SINNECKER, J. P.; GARCIA, J. M.; ASENJO, A.; VAZQUEZ, M.; GARCIA-ARRIBAS, A. Giant magnetoimpedance in CoP electrodeposited microtubes. **J. Mater. Res.**, v. 15, p. 751–755, 2000.
- [188] SINNECKER, J. P.; KNOBEL, M.; PIROTA, K. R.; GARCIA, J. M.; ASENJO, A.; VAZQUEZ, M. Frequency dependence of the magnetoimpedance in amorphous CoP electrodeposited layers. **J. Appl. Phys.**, v. 87, p. 4825–4827, 2000.
- [189] GARCIA, J. M.; SINNECKER, J. P.; ASENJO, A.; VAZQUEZ, M. Enhanced magnetoimpedance in CoP electrodeposited microtubes. **J. Magn. Magn. Mater.**, v. 226-230, p. 704–706, 2001.
- [190] ATALAY, F. E.; KAYA, H.; ATALAY, S. Giant magnetoimpedance effect in electrodeposited CoNiFe/Cu wires with varying Ni, Fe and Co content. **J. Alloy Compd.**, v. 420, p. 9–14, 2006.

- [191] MCHENRY, M. E.; WILLARD, M. A.; LAUGHLIN, D. E. Amorphous and nanocrystalline materials for applications as soft magnets. **Prog. Mater. Sci.**, v. 44, p. 291–433, 1999.
- [192] XIAO, S. Q.; LIU, Y. H.; DAI, Y. Y.; ZHANG, L.; ZHOU, S. X.; LIU, G. D. Giant magnetoimpedance effect in sandwiched films. **J. Appl. Phys.**, v. 85, p. 4127–4130, 1999.
- [193] PANINA, L. V.; MOHRI, K. Magneto-impedance in multilayer films. **Sens. Actuators A**, v. 81, p. 71–77, 2000.
- [194] WIPO. World Intellectual Property Organization. **Patent Scope**. Disponível em: <<http://www.wipo.int/patentscope/en/>>. Acesso em: 14 de Fevereiro de 2010.
- [195] PUC-Rio. Pontifícia Universidade Católica do Rio de Janeiro. COSTA SILVA, E.; GUSMÃO, L. A. P.; HALL BARBOSA, C.; COSTA MONTEIRO, E.; MACHADO, F. L. A.; POMPEIA, F.; LOUZADA, D. R. International Application No: **PCT/BR2010/000026**, 2010.
- [196] PAIXÃO, F. C.; MORAES, R.; CORÁ, L. A.; ANDREIS, U.; OLIVEIRA, R. B.; BAFFA, O.; MIRANDA, J. R. A. Magnetoresistive sensors in a new biomagnetic instrumentation for applications in gastroenterology. In: 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Lyon, França, 2007. **Proceedings of the 29th Annual International**, 2007, p. 2215-2218.
- [197] EGELHOFF JR., W. F.; PONG, P. W. T.; UNGURIS, J.; MCMICHAEL, R. D.; NOWAK, E. R.; EDELSTEIN, A. S.; BURNETTE, J. E.; FISCHER, G. A. Critical challenges for picoTesla magnetic-tunnel-junction sensors. **Sensors and Actuators A**, v. 155, p. 217–225, 2009.