NEBAIR Hocine

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PERSONAL DETAILS

Full Name: NEBAIR Hocine

Date of birth: 12/09/1992 Laghouat/ Algria

Current function: Professor Researcher

Grade : Doctorate degree in Physics

Laboratory: Materials Physics Laboratory University of Laghouat

Professional address : Higher Normal School of Laghouat, BP 4033, Laghouat, Algeria

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ACADEMIC QUALIFICATIONS

2011-2015: Diploma of Intermediate Education Professor in Physics from the Higher Normal School of Laghouat

2015- 2017: Magister in Physics option, Field-matter interaction specialty from Higher Normal School of Laghouat.

2017-2023: Doctorate degree in Physics, Materials Physics specialty from Laghouat University.

MODULES TAUGHT

Chemistry for second year students, teacher of primary education: 2016-2018.

Physics for second year students, teacher of primary education: 2017-2018.

Optics for second year students of physics (intermediate + secondary): 2018-2020.

Electromagnetism for third year secondary students in physics: 2018-2020.

Scientific English for third and fourth year students of physics: 2018-presnt.

Scientific English for first-year master's students: 2020-2024.

Magnetic properties of materials for second year master's students: 2020- present.

Materials Development for first-year master students: 2021-2024.

Thin films and their applications for first-year master students: 2022-2024.

Functional materials for first-year master students: 2022-2024.

Material simulation for second year master's students: 2023- present.

PEDAGOGICAL FRAMING

2020/2021 :Simulation 2D eddy current system in non-magnetic materials with finite element method by using FEEM software. Master 2.

2021/2022: Characterization of quenched and tempered ferromagnetic steels by magnetic BARKHAUSEN noise technique. Master 2.

2021/2022: Evaluation of quenching and tempering of dual phase X70 steel using magnetic Barkhausen noise method (Step quinching treatment as a model). Master 2.

2021/2022: Évaluation des aciers ferromagnétiques trempés et revenus par la technique magnétique de bruit Barkhausen (traitement IQ comme modèle). Master 2.

2021/2022: Modelling of a control system by electromagnetic method using FLUX software. Master 2.

2022/2023: Modelling and characterization eddy current system by using FLUX software. Master 2.

2023/2024: Modelling and realization electromagnetic system for thickness measurement using FLUX software. PES.

RESEARCH ACTIVITY

INTERNATIONAL PUBLICATIONS

Nebair, H., Cheriet, A., El Ghoul, I. N., Helifa, B., Bensaid, S., & Lefkaier, I. K. (2018). Bi-eddy current sensor based automated scanning system for thickness measurement of thick metallic plates. The International Journal of Advanced Manufacturing Technology, 96(5), 2867-2873.

Nebair, H., Helifa, B., Bensaid, S., Zidelmel, S., & Lefkaier, I. K. (2022). Martensite morphology and volume fraction evaluation of dual-phase X70 steel using magnetic Barkhausen noise technique. Journal of Magnetism and Magnetic Materials, 555, 169397.

Nebair, H., Zidelmel, S., Helifa, B., Bensaid, S., & Lefkaier, I. K. (2024). Hardness and Ferrite Grain Size Evaluation of X70 Steel Using Magnetic Barkhausen Noise Method. Journal of Nondestructive Evaluation, 43(2), 57.

INTERNATIONAL COMMUNICATIONS

H. Nebair, S. Zidelmel, B. Helifa, S. Bensaid, I. K. Lefkaier, Monitoring the microstructural changes during quenching, 2nd International Conference on Computational & Applied Physics, ICCAP'2023 08-10 October 2023, Blida, Algeria.

H. Nebair, S. Zidelmel, B. Helifa, S. Bensaid, I. K. Lefkaier, Grain Boundary Characterization of Ferromagnetic Materials using Magnetic Measurements, 1st International Conference on Innovation Research in Materials and Nanotechnology (ICIRMN 2023) November 29-30, 2023 Ghardaia, Algeria

NATIONAL COMMUNICATIONS

H. Nebair, A. Cheriet, I. N. El ghoul, B. Helifa, S. Bensaid, I. K. Lefkaier, Mesure de l'épaisseur des plaques métalliques épaisses par courants de Foucault, 5ème Colloque sur l'Inductique, 13 & 14 décembre 2017, Oran, Algérie.

H. Nebair, B. Helifa, S. Bensaid, I. K. Lefkaier, Characterization of Influence Heat Treatments on grain boundary in ferromagnetic materials by Magnetic Barkhausen Noise Method, 1ères Journées Nationales des Sciences des Matériaux (JNSM2021) organisées par l'Université de Batna 2, les 17 et 18 Novembre 2021.

H. Nebair, B. Helifa, I. K. Lefkaier, S. Bensaid, Caractérisation de l'acier X70 par mesures magnétiques, 7éme Colloque sur l'Inductique, 10 et 11 mai 2022 Constantine, Algérie.

H. Nebair, B. Helifa, S. Bensaid, I. K. Lefkaier, Characterization of X70 steel by magnetic measurements, In book: Inductics : Analysis, Multi-physical Modelling and Optimal Design of Electromagnetic Devices and MaterialsPublisher: Pages Bleues Internationales, September 2022.

H. Nebair, S. Zidelmel, B. Helifa, S. Bensaid, I. K. Lefkaier, Nondestructive Characterization of ferromagnetic steels by Magnetic Barkhausen Noise Technique, 1ST National Conference on Mechanics and Materials NCMM'2023, 06 - 07 December 2023, Boumerdes University- Algeria.

H. Nebair, S. Zidelmel, B. Helifa, S. Bensaid, I. K. Lefkaier, Metallurgical Transitions Characterization of Heat-Treated X70 Steels using Magnetic Barkhausen Noise method, 1ST National conference on sustainable resourceswaste, water and energy, Decembre 13, 14 2023, Laghouat, Algeria.

RESPONSIBILITIES and MEMBERSHIP

Responsible of Master's degree in Materials Physics, Department of Physics at Higher Normal School of Laghouat: 2021- present.

Member of the Equal-Member Committee for Professors at Higher Normal School of Laghouat: 2022-present.

Member of the technical committee at Higher Normal School of Laghouat: 2023- present.

Member in the Materials Physics Laboratory at Laghouat University: 2017- present.

Member of the organizing committee in the 3rd national conference on applied physics and chemistry, Laghouat, 12th &13th march 2023.

Member of the organizing committee in 1ST National conference on sustainable resourceswaste, water and energy, Decembre 13, 14 2023, Laghouat, Algeria.

Member in PRFU project (Training-University Research Project) 2019-2022 code: B00L02 UN0301 2019 0003 entitled "Development of a platform for acquisition, analysis and inversion of data in Barkhausen Noise control of transport pipelines hydrocarbons of the TRC-Sonatrach Branch"

SOFTWARE SKILLS

Altair Flux

Labview

FEMM

MATLAB

Certificates

NDT Level II Certificate in Ultrasonic Testing –UT.

Certificate of Reviewing in Journal Optics and Laser Technology.

Certificate of Attendance in (Choisir mon sujet de recherche pour une meilleure visibilité internationale (90min)), Presented by Nadine Iskander RSM, Karim Aiche Elsevier Ambassador.

Certificate of Attendance in (Comment s'assurer que le sujet de ma recherche n'est pas obsolète ?), Presented by Nadine Iskander RSM, Hichem Chorfi Elsevier Ambassador.

Certificate of Attendance in (Exploration du Legacy Content sur ScienceDirect (90min)), Presented by Nadine Iskander RSM, Hichem Chorfi Elsevier Ambassador.

Certificate of Attendance in (Explorez la base de donnée Scopus (90min)), Presented by Nadine Iskander RSM, Hichem Chorfi Elsevier Ambassador.

Language

Arabic: Native language

English: Very good