Abdelilah Benyoussef

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14, rue Assad Ibn Alfourate, Agdal, Rabat, Morocco
Tel: 212 664004714

Birthplace:

Rabat, Morocco, march 11th 1950

Education/Last Degree

Doctorat d'Etat Orsay Paris (1983)

Position

Member of the Hassan II Academy of Science and Technology
Professor of statistical Physics, Faculty of science, Mohammed V University, Rabat, Morocco (1977-2015)
Associate member of the Laboratory of Condensed Matter and Interdisciplinary Science, Faculty of science, Mohammed V University, Rabat, Morocco
Director of Materials and Nanomaterial centre, MAScIR, Rabat, Morocco (2009-2019)
President of the Moroccan statistical physical and condensed Matter Society
Editor in chief of the Moroccan Journal of Condensed Matter
Coordinator of the Pole of Competences of Condensed Matter (MACOMS)

Stays in the Universities and Research centers abroad

Laboratory of Magnetism (CNRS) Meudon Bellevue, France
CRTBT Grenoble, France
CEA Saclay, France
Joseph Fourier University, Grenoble, France
ICTP, Trieste, Italy
Naples University, Italy
Cologne University, Germany
Nagoya University, Japan
Sherbrooke University, Québec, Canada
Barcelona University, Spain
Néel Laboratory, CNRS, Grenoble, France
Leuven University, Belgium
Joseph Fourier University, Grenoble, France
Kiel University, Kiel, Germany
Picardie Jules Verne University, Amiens , Fance
Lorraine University, Nancy, France
Shanghai Institute of Ceramics, Chinese Academy of Sciences, China

Research interests:

Magnetic systems
Complex systems
Statistical physics
Materials and Nanomaterials

Financed Projects:

1) CNRST- CNRS agreement, between the Laboratory of spectroscopy J. Fourier university – Grenoble- and the Laboratory of Magnetism Mohammed V university – Rabat- (2001-2004)
2) Federation arrangement between ICTP(Trieste – Italie), and the Laboratory of Magnetism, Mohammed V university – Rabat-(1996-2004)
3) « Scholar/consultant, ICTP » agreement between Lausanne university and the Laboratory of Magnetism Mohammed V university – Rabat- (2000-2003)
4) CNRST-DFG agreement, between the Institute of theoretical physics – Cologne university and the Laboratory of Magnetism Mohammed V university – Rabat- (1989-1999)
5) CNRST-CNRI agreement, between the Laboratory of statistical physics - Naples university and the Laboratory of Magnetism, Mohammed V university – Rabat- (1993-1996)
6) « Scholar/consultant, ICTP » agreement between the ENS of Paris and the Laboratory of Magnetism Mohammed V university – Rabat- (1992-1995)
7) 'PARS Phys/35' (1998-2001) project
8) 'PROTARS II P11/02' (2001-2004) project
9) 'PROTARS III D12/22' (2004-2007) project
10) MACOMS project, financed by the Moroccan Ministry of Research (2002-2006)
11) Volubilis agreement between the Laboratory of spectrometry - Joseph Fourier university, Grenoble, France, and the Laboratory of Magnetism, Mohammed V university – Rabat- 2005-2009
12) “New materials for energy storage” Project n° PMI 09/09 in the framework of the emergency plan of research 2009-2012., Mohammed V University.
13) Agreement LMPHE- British Council (1990)
14) Agreement LMPHE- Nagoya university Japan (1992)
15) PPR/2015/71 CNRST- Moroccan Ministry of Esducation (2015-2021)
16) PPR/2015/57 CNRST- Moroccan Ministry of Esducation (2015-2021)
17) PPR/2015/57 CNRST- Moroccan Ministry of Esducation (2015-2021)
18) APHOS OCP- CNRST (2017-2021)

792 Publications

Publications Benyoussef Mars 2024

Patents:

- (33982 Ref OMPIC) Semiconducteurs magnétiques demi-métalliques (dépôt: 25/05/2012 Dépôt extension PCT)
- (34307 Ref OMPIC) Synthèse et propriétés physiques des Nanoparticules de férritesSn1-xMexFe2O4 (Me = Co, Ni, Mn) dépôt: 26/10/2011.
- (35010 Ref OMPIC) Nanoferrites, nanoparticules et nanotiges, à base de Nd1-xMxFe2O4 (N=Co, Ni, Mn, et Sn) dépôt: 28/06/2012
- (35212 Ref OMPIC) Procédé de fabrication de nouveaux nanomatériaux ferrites-oxydes hybrides à partir de précurseurs à base de matière première Marocaine dépôt: 13/09/2012
- (35214 Ref OMPIC) : Nouveau procédé de fabrication de ferrites de nickel à partir de précurseurs à base de matière première Marocaine. dépôt: 13/09/2012
- (35619 Ref OMPIC) Fabrication de Zn-Mn spinelles et composites à partir de précurseurs à base de matière première contenant des impuretés dépôt: 29/01/2013

Edition:

Chapter Books:

H. Ez-Zahraouy , A. Benyoussef and L. Bahmad
Surface Effects On Wetting and Layering Transitions
Surface Science Research Developments, p. 75 (2004), Editor: Charles P. Norris

A. Benyoussef and A. El Kenz
Effects of amorphization on magnetic properties in bilayers and films
Transworld Research Network, P. 183 (2008), Editor: Merad

O. Mounkachi, R. Masrour, M. Hamedoun, A. Benyoussef, H. El Moussaoui, E.K. Hlil
Diluted Magnetic Semiconductor: Theoretical Investigation and Applications
Recent Advances in Magnetism Research, Nova Publisher, Editors: Keith Pace
(2013) ISBN: 978-1-62808-451-1

M. Hamedoun, R. Masrour, H. El Moussaoui, O. Mounkachi, A. Benyoussef, E.K. Hlil
Comparative Study of the Structural and Physical Properties of Spinel Nano-Ferrites Synthesized by Co-Precipitation Method
Recent Advances in Magnetism Research, Nova Publisher, Editors: Keith Pace
(2013) ISBN: 978-1-62808-451-1

-Theoretical and experimental study of magnetic hysteresis cycle
R. Masrour, O. Mounkachi, H. El Moussaoui, M. Hamedoun, A. Benyoussef
Chapter 4, Nova Science Publisher 2013 ISBN: 978-1-62808-450-4 Editors: Keith Pace

- Gallium Nitride: Structure, Thermal Properties and Applications
O. Mounkachi, M. Hamedoun, A. Benyoussef et al.
Series: Chemistry Research and Applications
Chapter, Nova Science Publisher 2014 ISBN: 978-1-63321-387-6

- Hysteresis: Types, Applications and Behavior Patterns in Complex Systems
H. El Moussaoui, O. Mounkachi, M. Hamedoun, A. Benyoussef et al
Series: Materials Science and Technologies
Chapter, Nova Science Publisher 2014 ISBN: 978-1-63321-336-4

Edition of the Moroccan Journal of Condensed Matter

First volume in 1998
Second volume in 1999
3th volume in 2000
4th volume in 2001
5th volume in 2004
6th volume in 2005
7th volume in 2006
8th and 9th volumes in 2007
10th volume in 2008
11th volume in 2009
12th volume in 2010
13th volume in 2011
14th volume in 2012
15th volume in 2013

Supervision and co supervision:

'Doctorat d'Etat' :

-M.SABER
Phase transition study in disordered systems and molecular evolution

-N.BENAYAD
Phase transition study in disordered and frustrated systems

-M.TOUZANI
Simple model for the equilibrium shape of 4He crystals

-A. BAKCHICH
Renormalization-group approach to surface critical behavior in the semi-infinite spin-3/2 Blume-Emery-Griffiths model

-A. ELKENZ
Interface delocalization in the three-dimensional Ising model with a defect plane

-H.EZ-ZAHRAOUY
Phase transition for systems on lattice: Quantum models and models with surface or interface

M. LOULIDI
Short-range Potts spin-glass model: Renormalization-group method

S. BEKHECHI
Numerical study of a lattice-gas model for micellar binary solutions
1999

K. AFIF
Application of statistical models and numerical simulations to study the physical properties of two and three-dimensional solid solutions
2001

L. BAHMAD
Monte Carlo study of order-disorder layering transitions in the Blume-Capel model
2003

'Thèses de 3ème cycle D.E.S' :

-N. BENAYAD
Application of finite cluster approximation to phase transition

-M .SABER
Theoretical study of the semi-infinite Ising lodel

-A. ELKENZ
Renormalisation group recursion relations using the application of generalised Callen identities to the Ashkin-Teller model

-M. EL BOUZIANI

Real-space renormalization-group investigation of the three-dimensional semi-infinite Blume-Emery-Griffiths model

-M. TOUZANI
Equilibrium shape of 4He crystals

A. BAKCHICH
Real-space renormalization-group investigation of the randomly dilute q-state Potts model

-M. LOULIDI
Phase diagrams of antiferromagnetic Z(q) models

-H. EZ-ZAHRAOUY
Wetting, wetting transitions and multilayer transitions in the Ising and solid on solid models

A. BASSIR
Phase transition in quantum systems

-Y.EL AMRAOUI
Magnetic properties and interface delocalization in the three-dimensional Ising model with defect-plane amorphization

C. BASSIR
Phase transition in disordered quantum systems

-H. CHAKIB
Anisotropy effect on two-dimensional cellular-automaton traffic flow with periodic and open boundaries
1999

'Doctorat en sciences' :

F. MHIRECH
Contribution to the study of the self organised systems.
1999

M. BENGRINE
Phase diagram of disordered magnetic systems
1999

D. DOHMI
Phase diagram of randomly polymerized membrane
1999

A. BOUBEKRI
Multilayer Heisenberg models: linear spin wave analysis
1999

M. BADEHDAH
Finite-size-scaling study of the two-dimensional spin-1 model with positive biquadratic interaction
1999

B. ETTAKI
Kinetic Ashkin-Teller model with competing dynamics
2000

A. RACHADI
Mixed cluster Monte Carlo algorithms for the Blume-Emery-Griffiths model
2003

O. MOUNKACHI
Ab initio calculation and Curie temperature determination of diluted magnetic semiconductor (Zn, Mn) O and (Ga, Fe) N for Spintronics Applications
2 November 2009

Mourad El YADARI
Static and dynamic Modelling of complex magnetic systems and characterizations of thin films of ZnO and ZnO doped with cobalt
12 June 2010

Kamal JETTO
Cellular automata models for Traffic
15 march 2009

Mounir El ACHABY
Nanocomposites Graphène-Polymères Thermoplastiques: Fabrication et Etude des Propriétés Structurales, Thermiques, Rhéologiques et Mécaniques
06/10/2012

Hassan El Moussaoui
Étude expérimentale et théorique des matériaux et nanomatériaux magnétiques de type ferrite spinelle
20/06/2012

El Mehdi Salmani
Semiconducteurs magnétiques dilués ZnO, Gan, SnO2; Structure électronique et proprietés magnétiques: calcul ab initio
05/07/2013

Halima Zaari
Etude ab initio des propriétés optiques des matériaux
22-07-2015