CV of Prof. Dr. Hafedh BELMABROUK

Born on 3d November 1963 in Sfax, Tunisia

Professor at College of Science, Zulfi, Majmaah University, KSA
Consultant at Deanship of Scientific Research, Majmaah University, KSA

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EDUCATION

1985	Preparatory Years for Engineer Colleges (Mathematics-Physics-Industrial Sciences)	Lycée Pierre de Fermat, Toulouse, France
1988	Engineer, (multi-skilled)	Ecole Centrale de Lyon, Lyon, France
1988	M.Sc. Degree (Heat Transfer)	Ecole Centrale de Lyon, Lyon, France
1992	PhD Degree (Fluid Mechanics)	Ecole Centrale de Lyon, Lyon, France **With the support of Renault, Peugeot and the French Institute of Petroleum**

CAREER

August 2015 – Continue	*Professor,* Majmaah University, Saudi Arabia – President of the Quality Unit at Deanship of Scientific Research (DSR) – President of the Data and Statistics Unit at DSR – President of the Master Committee of Physics – Strategic and Operational Plans of Scientific Research – Writing of many Procedural Guides about Scientific Research at DSR
November 2006 – August 2015	*Professor,* University of Monastir, Tunisia – President of the Master Committee "Instrumentation and Renewable Energy" – Coordinator of the Engineering Student Training in Instrumentation and Renewable Energy – Coordinator of the applied master degree (Advanced Instrumentation, Renewable Energy) – Member of the Scientific Council of the National Agency for Metrology – Member of the National Commission for the Promotion to the rank of full Professor in Energy Engineering – Member of the Scientific Council of the University of Monastir
October 2001 – November 2006	*Associate Professor,* University of Monastir, Tunisia
October 1994 – October 2001	*Assistant Professor,* University of Monastir, Tunisia
October 1992 – September 1994	*Assistant,* University of Monastir, Tunisia

ADMINISTRATIVE EXPERIENCE

2012–2014	**Director General of the National Centre for Nuclear Science and Technology** (Tunisia) Administrative Management Capacity Building in Nuclear Science and Technology Service Delivery to Industry and Technology Transfer Nuclear Laws and International Treaties and Conventions
	President of the Steering Committee of the Arab Network of Nuclear Regulators ANNuR
	Member of the Executive Council of the Arab Atomic Energy Agency
2011–2012	**Deputy Dean and Training Director, Faculty of Sciences of Monastir** – Enhancement of the Relationship between Universities and Companies – Engineering Student Industrial Training
2002–2005	**Chairman**, **Department of Physics,** (This Department contains four main disciplines: Fundamental Physics, Materials Science, Mechanical Engineering, and Electrical Engineering. It offers 6 master programmes including Renewable Energy and Instrumentation).

RESEARCH ACTIVITIES

- Many participation to national and international conferences (France, USA, Croatia, Portugal, Algeria, Tunisia, KSA, Austria, Morocco, Sudan, Jordan, Korea);
- Collaboration with many French laboratories (Ecole Centrale de Lyon, INSA-Lyon, University of Paris 6, University of Angers, University of Grenoble)

Research Interests:

- Microfluidics and biosensors;
- Heat Transfer in Transistors;
- Renewable Energy

Supervised Works

PhD Supervised or co-supervised	14
Masters Supervised or co-supervised	17
Engineer + Applied masters	14
Baccalaureate	45

Published Works

Books	4 published + 2 in progress
Indexed Journal Papers	110 (60 in the last five years)
International Conference papers	70
National Conference papers	20

Winner of the Award of Outstanding Researcher at Majmaah University (March 2018)

TEACHING EXPERIENCE

- Ten lecture notes have been written (in French or English);
- Visiting professor at University of Gabes, University of Sousse and University of Lyon
- Participation to the elaboration of new undergraduate and graduate diploma;
- Participation to many symposium on teaching methods, evaluation, e-learning;
- Supervision of the training of more than 40 students (Metrology, Instrumentation, Renewable energy, Air conditioning, Regulation...);
- Coordinator of many teaching Labs.

Taught courses in Physics and Material Science

Statistical Physics, Fourier optics, Wave optics, Optics in anisotropic media, Geometrical optics, Quantum mechanics, Special Relativity, Introduction to quantum mechanics, Nuclear Physics Lab, Metrology, Electricity, Electromagnetism, Physics Lab

Taught courses in Mechanical Engineering and Renewable Energy

Air conditioning, Applied Thermodynamics, Advanced Heat Transfer, Solar energy, Heat transfer, Renewable Energy, Thermodynamics, Waves and Vibrations, Fluid Mechanics, Solid Mechanics, Mechanics, Numerical Analysis and Matlab.

LIST OF INDEXED PAPERS

Topic 1: Thermo-Fluidics

N	Publication
1	**2014** M.H. Gazzah, **H. Belmabrouk**, "Local entropy generation in co-flowing turbulent jets with variable density", Int. J. Numerical Methods for Heat & Fluid Flow, Vol. 24, Issue 8, (2014**)**
2	**2014** M.H. Gazzah, **H. Belmabrouk**, "Directed co-flow effects on local entropy generation in turbulent heated round jets", Computers & Fluids, Vol. 105, pp. 285-293, (2014)
3	**2011** F. Echouchene, **H. Belmabrouk**, L. Le Penven, M. Buffat,"Numerical simulation of a wall roughness effects in cavitating flow" International Journal of Heat and Fluid Flow, Vol. 32 (5), 1068-1075, (2011**)**
4	**2010** M.H. Gazzah, N. Boughattas, **H. Belmabrouk**, R. Said, "The dynamic field in turbulent round jet discharging into a co-flowing stream", Natural Science, Vol. 2, N 6, pp. 635-640, (2010**)**
5	**2010** F. Echouchene, **H. Belmabrouk**, "Evolution of the cavitation bubble driven by periodic pressure**",** 17th International Congress on Sound and Vibration 2010, ICSV 2010**,** 4, pp. 2933-2938, (2010)
6	**2010** F. Echouchene, **H. Belmabrouk,** "Computation of cavitating flows in a diesel injector**",** IOP Conference Series: Materials Science and Engineering**,** 13(1),012035, (2010)
7	**2005** M.H. Gazzah, **H. Belmabrouk**, M. Sassi**,** "Scalar transport modelling in turbulent round jets with co-flowing stream", International Journal of Thermal Sciences, Vol. 44, Issue 8, pp. 766-773, (2005)
8	**2004** M.H. Gazzah, **H. Belmabrouk**, M. Sassi**,** "A numerical study of the scalar field in turbulent round jet with co-flowing stream", Computational Mechanics, Vol. 34, Issue 5, pp. 438-438, (2004**)**
9	**2003** A. Boughamoura, **H. Belmabrouk**, S. Ben Nasrallah**,** (2003) "Numerical study of a piston-driven laminar flow and heat transfer in a pipe with a sudden expansion", Int. J. Thermal Sciences Vol. 42, N° 6, June 2003, pp. 591-604, (2003)
10	**2001** **H. Belmabrouk**, M. Michard**,** "Analysis of the swirl effect on turbulent length scales in an ICE cylinder by two-point LDV" International Journal of Heat and Fluid Flow, Vol. 22, pp 417-423, (2001**)**
11	**2001** **H. Belmabrouk,** "Estimation of the accuracy of Taylor length scale measurements by two-point LDV in reciprocating engines" Flow Measurement and instrumentation. Vol. 12, pp. 17-24, (2001**)**
12	**2001** **H. Belmabrouk,** "Accuracy of Taylor length scale measurements by two-point laser Doppler velocimetry- a theoretical study" Flow Measurement and instrumentation. Vol. 12, pp 9-16, (2001)
13	2001 A. Boughamoura, **H. Belmabrouk**, S. Ben Nasrallah, L. Le Penven, "Analysis of a turbulent compressed flow by a second-order model". ARI Spinger-Verlag, Vol 52, pp 14-22, (2001)
14	**2000** **H. Belmabrouk, "**A theoretical investigation of the exactness of Taylor length scale estimates from two-point LDV**"** Experimental Thermal and Fluid Science. Vol. 22, pp. 45-53, (2000)
15	**2000** A. Boughamoura, **H. Belmabrouk**, S. Ben Nasrallah, **"**Numerical investigation of a piston-driven flow in a sudden pipe expansion**",** European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS, **(**2000**)**
16	**2000** M. Ben Chiekh, M. Michard, **H. Belmabrouk**, S. Ben Nasrallah, **"**An application of proper orthogonal decomposition to particles tracking**",** European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS, **(**2000**)**

17	**1998** **H. Belmabrouk**, M. Michard, “Taylor length scale measurement by laser Doppler velocimetry” Experiments in Fluids, 25 (1), pp 69-76, (1998)
18	**1991** **H. Belmabrouk**, M. Lance, N. Grosjean, M. Michard, “Measurement of turbulence length scales by two-point laser Doppler anemometry”. Experimental heat transfer, fluid mechanics and thermodynamics. Edited by JF Keffer, RK Shah, EN Ganic. Elsevier Science Publishing. pp: 452-459, (1991)
19	**1991** M. Lance, **H. Belmabrouk**, Y. Gervais, N. Grosjean, M. Michard, “Aérodynamique interne d'un moteur axisymétrique entraîné” published in the book "La Combustion dans les Moteurs d'Automobile" Editions Technip, (1991)
20	**1991** **H. Belmabrouk**, M. Lance, N. Grosjean, M. Michard, “Turbulence length scale measurements by two-point laser Doppler anemometry in a steady flow”. SAE Technical Paper 910474, (1991)

Topic 2: Heat transfer in transistors

1	**2018** H. Rezgui, F. Nasri, M.F. Ben Aissa, F Blaabjerg, **H. Belmabrouk**, Guizani AA. “Investigation of heat transport across Ge/Si interface using an enhanced ballistic-diffusive model”, Superlattices and Microstructures, Vol. 124, pp 218-230, (2018)
2	**2018** H. Rezgui, M.F. Ben Aissa, F. Nasri, **H. Belmabrouk**, Guizani AA. “Modeling Thermal Performance of Nano-GNRFET Transistors Using Ballistic-Diffusive Equation”, IEEE Transactions on Electron Devices, Vol. 65(4), pp. 1611-1616, (2018)
3	**2017** M.F. Ben Aissa, F. Nasri, **H. Belmabrouk**, ‘Multidimensional Nano Heat Conduction in Cylindrical Transistors”, IEEE Transactions on Electron Devices, 64(12), 8089805, pp. 5236-5241, (2017)
4	**2017** F. Nasri, M.F. Ben Aissa, **H. Belmabrouk**, “Nano heat conduction performance of black phosphorus Field Effect Transistor”, IEEE Transactions on Electron Devices, Vol. 64 (6), pp. 2765-2769, (2017)
5	**2017** F. Nasri, M.F. Ben Aissa, **H. Belmabrouk**, “Nonlinear Electrothermal Model for Investigation of Heat Transfer Process in a 22-nm FD-SOI MOSFET”, IEEE Transactions on Electron Devices, Vol. 64 (4), pp. 1461-1466, (2017)
6	**2017** F. Echouchene, **H. Belmabrouk**, “Effect of temperature jump on nonequilibrium entropy generation in a MOSFET transistor using dual-phase-lagging model”, Journal of Heat Transfer, Vol. 139 (12), (2017)
7	**2015** F. Nasri, M.F. Ben Aissa, M.H. Gazzah, **H. Belmabrouk**, “3D thermal conduction in a nanoscale Tri-Gate MOSFET based on Single-Phase-Lag model”, Applied Thermal Engineering, Vol. 91, pp. 647-653, (2015)
8	**2015** F. Nasri, F. Echouchene, M.F. Ben Aissa, I. Graur, **H. Belmabrouk**, “Investigation of Self-Heating Effects in a 10-nm SOI-MOSFET With an Insulator Region Using Electrothermal Modeling”, IEEE Transactions on Electron Devices, Vol. 62, Issue 8, pp. 2410-2415, (2015)
9	**2015** F. Nasri, M.F. Ben Aissa, **H. Belmabrouk**, “Microscale thermal conduction based on Cattaneo-Vernotte model in Silicon On Insulator and Double Gate MOSFETs”, Applied Thermal Engineering, Vol. 76, pp. 206-211, (2015)
10	**2015** F. Nasri, M.F. Ben Aissa, **H. Belmabrouk**, “Effect of second-order temperature jump in Metal-Oxide-Semiconductor Field Effect Transistor with Dual-Phase-Lag model”, Microelectronics Journal, (2015)

Topic 3: Microfluidics and Biosensors

1	**2018** Y. Saad, M. Selmi, MH Gazzah, **H. Belmabrouk**, “Theoretical evaluation of a fiber-optic SPR biosensor based on a gold layer treated with thiol acid”, EPJ Applied Physics, Vol. 82(3), 31201, (2018)

2	**2018** M. Selmi, **H. Belmabrouk**, "3D Numerical Simulation of Binding Efficiency of Immunoassay for a Biosensor with Involving a Cylinder", Sensor Letters, Vol. 16 (7), 498-505 (2018)
3	**2018** Y. Saad, M. Selmi, M.H. Gazzah, **H. Belmabrouk**, "The Effect of Physical and Geometric Parameters on the Surface Plasmon Resonance Response of a Fiber Optic Biosensor: Sensitivity Analysis and Numerical Optimization", Sensor Letters, Vol. 16 (6), 403-409, (2018)
4	**2017** M. Selmi, M.H. Gazzah, **H. Belmabrouk**, "Optimization of microfluidic biosensor efficiency by means of fluid flow engineering", Scientific Reports, Vol. 7, (1), 5721, (2017)
5	**2017** Y. Saad, M. Selmi, M.H. Gazzah, **H. Belmabrouk**, "Graphene Effect on the Improvement of the Response of Optical Fiber SPR Sensor", IEEE Sensors Journal, 17 (22), 7440-7447, (2017)
6	**2016** M. Selmi, M.H. Gazzah, **H. Belmabrouk**, "Numerical study of the electrothermal effect on kinetics reaction of immunoassay for a microfluidic biosensor", Langmuir, Vol. 32 (50), pp. 13305-13312 (2016)
7	**2017** N. Aoun, F. Echouchene, **H. Belmabrouk**, "Comparison with one-site and two site binding model for microsensor", Sensor Letters, Vol. 15 (4), pp. 364-370, (2017)
8	**2016** M. Selmi, R. Khemiri, F. Echouchene, **H. Belmabrouk**, "Electrothermal effect on the immunoassay in a microchannel of a biosensor with asymmetrical interdigitated electrodes", Applied Thermal Engineering, Vol. 105, pp. 77-84, (2016)
9	**2016** N. Aoun, **H. Belmabrouk**, " Study and modelling of the pH-ElecFET microsensors for the lactate detection", Moroccan Journal of Chemistry, Vol. 4, Issue 1, pp 234-241, (2016)
10	**2016** N. Aoun, F. Echouchene, AK. Diallo, J. Launay, P. Temple-Boyer, **H. Belmabrouk**, "Finite-Element Simulations of the pH-ElecFET Microsensors", IEEE Sensors Journal, Vol. 16, No 17, pp. 6519-6526, (2016)
11	**2016** M. Selmi, R. Khemiri, F. Echouchene, **H. Belmabrouk**, "Enhancement of the analyte mass transport in a microfluidic biosensor by deformation of fluid flow and electrothermal force", Journal of Manufacturing Science and Engineering, Transactions of the ASME, Vol. 138, No 8, pp. (2016)
12	**2015** M. Selmi, F. Echouchene, M.H. Gazzah, **H. Belmabrouk**, "Flow confinement enhancement of heterogeneous immunoassays in microfluidics", IEEE Sensors Journal, 15(12),7234859, pp. 7321-7328, (2015)
13	**2016** M. Bouzid, F. Nasri, **H. Belmabrouk**, "Numerical Study of Electro-Chemical System for Enzymatic Activities Detection", Sensor letters, Vol. 14, No 11, pp. 1079-1083, (2016)
14	**2016** M. Selmi, F. Echouchene, **H. Belmabrouk**, "Analysis of Microfluidic Biosensor Efficiency Using a Cylindrical Obstacle", Sensor letters, Vol. 14, No 1, pp. 26-31, (2016)
15	**2014** M. Selmi, F. Echouchene, **H. Belmabrouk**, "Numerical investigation of microfluidic flow under AC applied electric field: Enhanced of binding reaction for a biosensor", IREC 2014 - 5th International Renewable Energy Congress
16	**2013** M. Selmi, F. Echouchene, **H. Belmabrouk**, "Numerical modeling of microfluidic flow through a channel with sensitive membrane", Int. J. Mechanics and Energy, Vol. 1, Issue 4, pp. 172-183, (2013)
17	**2013** M. Selmi, F. Echouchene, **H. Belmabrouk**, "Numerical Investigation of Electrothermal flow Instability in Microchannel", Int. J. Mechanics and Energy, Vol. 2, Issue 2, pp. 59-62, (2013)

Topic 4: Materials Science and Renewable Energy

1	**2018** R. Belghouthi, T. Selmi, **H. Belmabrouk**, "Enhancing efficiency of InGaN nanowire solar cells by applying stress", Lecture Notes in Mechanical Engineering, (207169), pp. 1-9, (2018)
2	**2018** A Elhamza, SEL Kossi, J Dhahri, EK Hlil, MA Zaidi, H. Belmabrouk, "Estimating spontaneous magnetization from mean field analysis and critical exponents studyin La 0.6 Sr 0.4 Mn 0.9 Al 0.1 O 3 Compound", Journal of Magnetism and Magnetic Material, 460, pp. 480-488, (2018)
3	**2017** C. Rayssi, F.I.H. Rhouma, J. Dhahri, K. Khirouni, M.A. Zaidi, **H. Belmabrouk**, "Structural, electric and dielectric properties of $Ca_{0.85}Er_{0.1}Ti_{1-x}Co_{4x/3}O_3$ (0≤ x≤ 0.1)", Applied Physics A 123 (12), 778, (2017)
4	**2017** F. Bourguiba, A. Dhahri, S. EL Kossi, J. Dhahri, K. Khirouni, K. Taibi, E.K. Hlil, M. Zaidi, H. Belmabrouk "New insights into the 6H-type hexagonal perovskite solid solution $BaTiO_{3-\delta}$: Influence of acceptor and donor doping on crystal structure and electrical", Solid State Ionics, Vol. 310 (1), pp. 154-165, (2017)
5	**2017** S. Taamalli, **H. Belmabrouk**, V.V. Hoang, V. Teboul, "How do packing defects modify the cooperative motions in supercooled liquids?" Chemical Physics, 490, 55-61, (2017)
6	**2017** Kh. Dhahri, N. Dhahri, J. Dhahri, K. Taibi, E.K. Hlil, **H. Belmabrouk**, M.A. Zaidi, "Magnetic, magnetocaloric and critical behavior investigation of $La_{0.7}Ca_{0.1}Pb_{0.2}Mn_{1-x-y}Al_xSn_yO_3$ (x, y=0.0, 0.05 and 0.075) prepared by a sol-gel method", RSC Advances, Vol. 7 (69), pp. 43410-43423, (2017)
7	**2017** A. Ben Hassen, F. Ibn Haj Rhouma, J. Dhahri, N. Abdmoula, K. Taibi, **H. Belmabrouk**, M.A. Zaidi, "Relaxor ceramic with a high relative permittivity and low dielectric loss in Cr doped Ca0.67La0.22TiO3" Journal of Alloys and Compounds, Vol. 726, pp. 378-387, (2017)
8	**2017** M.A. Zaidi, J. Dhahri, I. Zeydi, T. Alharbi, **H. Belmabrouk**, "Large magnetocaloric effect and critical behavior in $La_{0.7}Ba_{0.2}Ca_{0.1}Mn_{1-x}Al_xO_3$", RSC Advances, Vol. 7 (69), pp. 43410-43423, (2017)
9	**2017** J. Jayarubi, A. John Peter, **H. Belmabrouk**, "Electromagnetically induced transparency in a group III–V nano-well for terahertz applications", Springer Proceedings in Physics, 189, pp. 329-334, (2017)
10	**2016** A. Rached, A. Bhouri, S. Sakr, J-L. Lazzari, **H. Belmabrouk**, "Self-consistent vertical transport calculations in AlxGa1-xN/GaN based resonant tunneling diode", Superlattices and Microstructures, Vol. 91, pp.37-50, (2016)
11	**2016** M. Bouzid, L. Sellaoui, M. Khalfaoui, **H. Belmabrouk**, A. Ben Lamine, "Adsorption of ethanol onto activated carbon: Modeling and consequent interpretations based on statistical physics treatment"", Physica A, Vol. 444, pp. 853-869, (2016)
12	**2016** M. Hjiri, I. Guezguez, K. Iliopoulos, A. El-Ghayoury, **H. Belmabrouk**, M.A. Karpierz, B. Sahraoui (2016) "Optical limiting efficiency of an electroactive bis-iminopyridine ligand and its zinc complex", Photonics Letters of Poland, Vol. 8, No. 1, pp. 5-7 (2016)
13	**2016** H. Lagha, **H. Belmabrouk**, H. Chazal, "Development of compact thermal model with two exchange surfaces", J. Electrical Systems, Vol. 12, No 4, pp. 757-7698 (2016)
14	**2016** H. Lagha, **H. Belmabrouk**, H. Chazal, "Measurement of temperature dependence of complex susceptibility and its anisotropy in ferromagnetic material", International Journal of Applied Engineering Research, 11(9), pp. 6694-6700, (2016)
15	**2016** H. Lagha, **H. Belmabrouk**, H. Chazal, "Measurement of temperature dependence of complex susceptibility and its anisotropy in ferromagnetic material", Journal of Modern Materials, Vol. 1, No 1, pp. 2-8 (2016)
16	**2016** S. Taamalli, A. Saim, **H. Belmabrouk**, V. Teboul, "Finite size effects and cooperativity in a model diatomic supercooled liquid", Journal of Applied and Theoretical Physics Research, Vol. 1, No. 1, pp.16-20, (2016)

17	**2016** R. Belghouthi, S. Taamalli, F. Echouchene, H. Mejri, **H. Belmabrouk**, "Modeling of polarization charge in N-face InGaN/GaN MQW solar cells", Material Science in Semiconductor Processing, Vol. 40, pp. 424-428, (2015)
18	**2015** C. Cassagne, M. Chniti, C.B. De Araujo, **H. Belmabrouk**, G. Boudebs, "Nonlinear optical characterization of tetraphenylporphyrin in the picosecond regime", International Conference on Transparent Optical Networks, 2015-August,7193435 (2015)
19	**2014** H. Lagha, H. Chazal, **H. Belmabrouk**, "A new approach for generating compact thermal models", 2014 International Conference on Electrical Sciences and Technologies in Maghreb, CISTEM 2014, 7076976, (2014)
20	**2014** K. Iliopoulos I. Guezguez, A.P. Kerasidou, A. El-Ghayoury, D. Branzea, G. Nita, N. Avarvaria, **H. Belmabrouk**, S. Couris, B. Sahraoui, "Effect of metal cation complexation on the nonlinear optical response of an electroactive bisiminopyridine ligand", Dyes and Pigments, Vol. 101, pp. 229-233, (2014)
21	**2014** I. Guezguez, K. Iliopoulos, M. Hjiri, A. Haj Said, Y. Boughaleb, **H. Belmabrouk**, "Third Order Nonlinear Optical Properties of Oligophenylene dyads by open-aperture z-scan technique", Opt. Quant. Electron, Vol.46, pp 7-13, (2014)
22	**2012** F.I.H. Rhouma, A. Dhahri, J. Dhahri, **H. Belmabrouk**, M.A. Valente, "Structural and dielectric properties of $Ba_{0.8}La_{0.133}Ti_{0.90}Sn_{0.1}O_3$", Solid State Communications, Vol. 152 (20), 1874-1879 (2012)
23	**2012** M. Charfeddine, **H. Belmabrouk**, M.A. Zaidi, H. Maaref, "2-D Theoretical Model for Current-Voltage Characteristics in AlGaN/GaN HEMT's", Journal of Modern Physics, Vol. 3, 881-886, (2012)
24	**2012** E. Tka, K. Cherif, J. Dhahri, E. Dhahri, **H. Belmabrouk**, E. Hlil "Effect of Al substitution on magnetocaloric effect in La0.57Nd0.1Sr0.33Mn1-xAlxO3 (0.0< x< 0.30) polycrystalline near room temperature" Journal of Alloys and Compounds, Vol. 518 (25), 32-37 (2012)
25	**2010** N. Dhahri, A. Dhahri, K. Cherif, J. Dhahri, **H. Belmabrouk**, E. Dhahri, "Effect of Co substitution on magnetocaloric effect in $La_{0.67}Pb_{0.33}Mn_{1-x}Co_xO_3$ ($0.15 \leq x \leq 0.3$)" Journal of Alloys and Compounds, Vol. 507, Issue 2, pp. 405–409, (2010)
26	**2008** S. Ben Afia, M. Triki, S. Jaziri, **H. Belmabrouk**, "Band offset calculations of diluted magnetic heterostructures ZnMnSe/ZnSSe" Journal of Solids and Structures, Vol.2 Issue3, pp. 217-227 (2008)
27	**2008** S. Ben Afia**, H. Belmabrouk**, "Band offset calculations of ZnSxSe1-x/ZnSySe1-y heterostructures" Thin Solid Films 516, pp. 1608-1612, (2008)
28	**2006** N. Safta, H. Mejri, **H. Belmabrouk**, M.A. Zaidi, "Effects of high doping on the bandgap bowing for AlxGa1-xN", Microelectronics Journal, Vol 37, Issue 11, pp. 1289-1292, (2006)
29	**2004** S. Ben Afia, **H. Belmabrouk**, M. Said, S. Abdi-Ben Nasrallah, N. Bouarissa, "Electronic structure calculations for ZnSxSe1-x", Material Science and Engineering C, Vol. 25, pp. 691-694, (2005)
30	**2005** S. Abdi-Ben Nasrallah, S. Ben Afia, **H. Belmabrouk**, M. Said (2005) "Optoelectronic properties of zinc blende ZnSSe and ZnBeTe alloys", The European Physical Journal B, Vol. 43, pp. 3-9, (2005)
31	**2004** A. Bhouri, H. Mejri, F. Ben Zid, **H. Belmabrouk**, M. Said, N. Bouarissa and J-L Lazzari, "Modelling of visible and near infrared wavelength quantum well devices made of zinc-blende $InxGa_{1-x}N$", Journal of Physics : Condensed Matter, Vol. 16, pp. 511-519, (2004)