
Prof. El Mustapha Feddi
Professor of Physics, ENSAM, Mohammed V University in Rabat
Email: e.feddi@um5r.ac.ma
Tel: 00 212 661891874.

h-index (25), i10-index (67), citations (1903)

Contact:

Email: e.feddi@um5s.net.ma

ORCID: <https://orcid.org/0000-0001-6641-3623>

Google Scholar: <https://scholar.google.com/citations?user=x9W7ZgoAAAAJ&hl=fr>

Cursus universitaire :

1997 Doctorat d'état en Physique des semiconducteurs, Faculté des sciences de Tétouan.
1987 Diplôme d'études supérieures en Physique des semi-conducteurs, univ. Metz, France.
1984 Diplôme d'études supérieures en Physique des semi-conducteurs, univ. Metz.
1983 Licence de Physique 1983.

Domaines d'intérêt :

Etude théoriques des propriétés optoélectroniques des boîtes quantiques de semi-conducteurs de type (**core/shell**) en vue de leur application dans divers domaines (cellules solaires, énergie renouvelable, imagerie médicale, dispositifs optoélectroniques, Transistors HEMT, Transport quantique, informatique quantique...). Propriétés optiques linéaires et non linéaires associées aux transitions des excitons et des excitons liés à des impuretés. Matériaux 2D et leurs applications. Influence des champs électriques et magnétique sur les propriétés optiques des nanostructures semi-conductrices. Calcul ab-initio dans les chalcopyrites, kësterites et dans les matériaux 2D.

Postes occupés et responsabilités pédagogiques :

- Professeur de physique à L'ENS de Tétouan de 1987 à 2005, à L'ENSET de Mohammadia de 2005 à 2009 et à l'ENSET de Rabat depuis 2009.
- Chef de département de physique de 1997 à 2005
- Directeur adjoint chargé de la recherche scientifique à L'ENSET de Rabat de 2013 à 2015.
- Actuellement : Chef de filière classes préparatoires ENSAM de Rabat.
- Professeur affilié au sein de l'Université Mohammed VI Polytechnique de Ben guérir depuis 2022.

Collaboration et postes occupés à l'international :

- Professeur invité (visiteur permanent) à l'université de lorraine Metz (France) depuis 1987 à 2020 et 2023.
- Professeur invité CEA Grenoble 1993.
- Professeur invité à l'Institut des Sciences des Matériaux à Valencia (Espagne)

de 2005 à 2010.

- 3 fois Professeur invité par IM2NPAix- Marseille Université France.

Cours et Travaux dirigés assurés :

Physique : Physique des semi-conducteurs, Electromagnétisme I et II, Mécanique Quantique, Physique de l'état solide, Théorie des bandes, Machines thermiques, Transferts Thermiques. Lignes de Transmission, Nanomatériaux. Fibres optiques. Introduction à l'informatique quantique.

Mathématiques : Algèbre, Analyse et analyse complexes, probabilité et statistiques

Informatique : Programmation : Fortran, Maple, Matlab, DFT

Encadrement :

Encadrement et co-encadrement d'une vingtaine de thèses de doctorat d'états et de doctorats nationales, **8** thèses sont en cours.

Expertise en évaluation de recherche scientifique :

Membre du comité éditorial du journal « Optical and Quantum electronics » Springer.

Membre associé du comité de rédaction du journal « current nanomaterials ».

Expert Evaluateur des revues scientifiques internationales chez : **Elsevier; IOP et Springer Verlag, Small (journal of physics Q1), MDPI**

Expert Evaluateur aux instances de CNRST de 2020 à 2023.

Expert Evaluateur avec plusieurs conférences internationales.

Projets de recherche :

- Responsable du Projet de recherche avec l'Institut des Sciences des Matériaux de l'université de valencia (Espagne) de 2005 à 2012. Les boîtes quantiques de InAs.
- Membre actif dans le projet PHC Maghreb avec l'université de Marseille depuis 2013 sur l'amélioration des cellules solaires à base de boîtes quantique de silicium.

Production scientifique :

- Auteur de plus de **plusieurs articles indexés** publiés dans des **revues** scientifiques d'impact facteur important dont 3 Phys. Rev. B et 2 en solarenergy
- Organisateur et membre du comité scientifique d'une quinzaine de manifestations nationales et internationales.

Collaborations Internationales :

- Université de Lorraine (France),
- Université de Aix-Marseille 2 (France).
- Institut des Sciences des Matériaux de Valencia (Espagne).
- Faculté des sciences exactes et naturelles (Colombie).
- Université de Trapaca en Chili
- Université Cuernavaca, México.
- Université saint Johns aux USA
- Université Delhi, Inde
- Des collaborations avec des équipes au Cameroun, Nigeria, Botswana et en Tunisie

LISTE DES PUBLICATIONS INDEXEES

https://scholar.google.com/citations?hl=en&user=x9W7ZgoAAAAJ&view_op=list_works&sortby=pubdate

TITLE	CITED BY	YEAR
<input checked="" type="checkbox"/> Modeling of highly efficient CNGS based kesterite solar cell: A DFT study along with SCAPS-1D analysis N El Ouarie, J El Hamdaoui, GS Sahoo, KG Rodriguez-Osorio, M Courel, ... Solar Energy 263, 111929		2023
<input type="checkbox"/> First principles study on electronic and optical properties of Cu ₂ CoGeS ₄ for photovoltaic conversion and photocatalytic applications K Lakaal, D Mazkad, M Beraich, A El Fatimy, M Courel, LM Pérez, P Díaz, ... Materials Research Bulletin 164, 112235	2	2023
<input type="checkbox"/> Analytical Modeling and Optimization of Cu ₂ ZnSn(S,Se) ₄ Solar Cells with the Use of Quantum Wells under the Radiative Limit KG Rodriguez-Osorio, JP Morán-Lázaro, M Ojeda-Martínez, ... Nanomaterials 13 (14), 2058		2023
<input type="checkbox"/> Applications of Hybrid Metal Nanoparticle-Quantum Dot in Biomedical Applications H Akram, M Abdullah, E Feddi, A Al-Khursan, LM Pérez, M Kria University of Thi-Qar Journal of Science 10 (1)		2023
<input type="checkbox"/> Intense Laser Field Effect on the Photo-Ionization Cross-Section of the First Exciton Transition in a Core/Shell Quantum Dot Submitted to an Applied Electric Field LM Pérez, N Aghoutane, D Laroze, P Díaz, M El-Yadri, ELM Feddi Coatings 13 (6), 1098		2023
<input type="checkbox"/> Optical Gain of a Spherical InAs Quantum Dot under the Effects of the Intense Laser and Magnetic Fields N Aghoutane, LM Pérez, D Laroze, P Díaz, M Rivas, M El-Yadri, EM Feddi Crystals 13 (5), 851		2023
<input type="checkbox"/> Influence of Hole-Phonon Coupling on Thermodynamic and Magnetic Properties of Diluted Semiconductor: Ga _{1-x} M _x As in Quantum Dots. EM Feddi, L Pérez MDPI		2023
<input type="checkbox"/> Tuning the Electronic Properties of Janus GeSnS ₂ Monolayers through Strain and Electric Field J El hamdaoui, LM Pérez, EM Feddi Materials Proceedings 14 (1), 59		2023
<input type="checkbox"/> Optoelectronic Properties of a Cylindrical Core/Shell Nanowire: Effect of Quantum Confinement and Magnetic Field M El-Yadri, J El Hamdaoui, N Aghoutane, LM Pérez, S Baskoutas, ... Nanomaterials 13 (8), 1334	1	2023
<input type="checkbox"/> Optical properties of donor impurity in Yukawa like potential: application to SiGe/Si and Si/SiGe M Kria, VV Nautiyal, K Lakaal, D Laroze, LM Pérez, V Prasad, E Feddi Physica Scripta 98 (5), 055914		2023

TITLE	CITED BY	YEAR
<input type="checkbox"/> Influence of Hole-Phonon Coupling on Magneto-Transport and Magnetocaloric Properties of the Dilute Ferromagnetic Semiconductor Ga _{1-x} Mn _x As in Confined Systems. Mater. Proc ... K Lakaal, EM Feddi, LM Pérez		2023
<input type="checkbox"/> Importance of core and shell sizes in the localization of the electron and hole in the formation of type I or type II excitons in spherical CdSe/ZnTe and CdSe/CdTe quantum dots. N Aghoutane, LM Pérez, D Laroze, M El-Yadri, E Feddi Results in Physics 44, 106158	1	2023
<input type="checkbox"/> Lattice deformation and potential effects on linear and nonlinear optical properties of doped SiGe quantum dot encapsulated in Si matrix K Lakaal, M Kria, JE Hamdaoui, V Prasad, E Feddi, D Laroze, LM Pérez, ... The European Physical Journal Plus 137 (12), 1-13	1	2022
<input type="checkbox"/> Ab Initio Study of Carrier Mobility, Thermodynamic and Thermoelectric Properties of Kesterite Cu ₂ ZnGeS ₄ JE Hamdaoui, M Kria, K Lakaal, M El-Yadri, EM Feddi, LP Rejas, ... International Journal of Molecular Sciences 23 (21), 12785	3	2022
<input type="checkbox"/> Magnetic barrier and temperature effects on optical and dynamic properties of exciton-polaron in monolayers transition metal dichalcogenides AK Teguimfouet, C Kenfack-Sadem, A Kenfack-Jiotsa, FCF Mbognou, ... Physica E: Low-dimensional Systems and Nanostructures 144, 115448	1	2022
<input type="checkbox"/> Rashba effect on linear and nonlinear optical properties of a cylindrical core/shell heterojunction quantum dot 9 M. Kria, Vijit V. Nautiyal, K. Lakaal, J. El Hamdaoui, M. Pérez, Varsha ... Front. Phys., Optics and Photonics	2*	2022
<input type="checkbox"/> Parameters Optimization of Intermediate Band Solar Cells: Cases of PbTe/CdTe, PbSe/ZnTe and InN/GaN Quantum Dots LM Perez, AEL Aouami, K Feddi, V Tasco, AB Abdellah, F Dujardin, ... Crystals 12 (7), 1002	4	2022
<input type="checkbox"/> Polaronic corrections on magnetization and thermodynamic properties of electron-electron in 2D systems with Rashba spin-orbit coupling K Lakaal, M Kria, J El Hamdaoui, V Prasad, VV Nautiyal, M El-Yadri, ... Journal of Magnetism and Magnetic Materials 551, 169042	3	2022
<input type="checkbox"/> Ab initio study on electronic and optical properties of Cu ₂ NiGeS ₄ for photovoltaic applications J El Hamdaoui, M El-Yadri, K Lakaal, M Kria, M Courel, M Ojeda, ... Solar Energy 237, 333-339	6	2022
<input type="checkbox"/> Impact of loss mechanisms through defects on Sb ₂ (S _{1-x} Se _x) ₃ /CdS solar cells with pn structure M Courel, T Jimenez, I Montoya De Los Santos, JP Morán-Lázaro, ... The European Physical Journal Plus 137 (3), 1-11	8	2022
<input type="checkbox"/> Ab Initio Study of Carrier Mobility, Thermodynamic and Thermoelectric Properties of Kesterite Cu ₂ ZnGeS ₄ J El El Hamdaoui, M Kria, K Lakaal, M El-Yadri, EM Feddi, LPP Rejas, ... IJMS		2022
<input type="checkbox"/> Effects of temperature, thickness, electron density and defect density on ZnS based solar cells: SCAPS-1D simulation A Talbi, Y Khaaissa, K Nouneh, EM Feddi, M El Haouari Materials Today: Proceedings 66, 116-121	3	2022

TITLE	CITED BY	YEAR
<input type="checkbox"/> Theoretical study of electronic properties and chemical stability of cubic phase zirconia nanowires MC Piedrahita, E Feddi, DJ Mowbray Physica Scripta 96 (12), 125879	1	2021
<input type="checkbox"/> Strain Effects on the Electronic and Optical Properties of Kesterite Cu ₂ ZnGeX ₄ (X = S, Se): First-Principles Study J El Hamdaoui, M El-Yadri, M Farkous, M Kria, M Courel, M Ojeda, ... Nanomaterials 11 (10), 2692	11	2021
<input type="checkbox"/> Anisotropy of effective masses induced by strain in Janus MoSSe and WSSe monolayers M Farkous, M El-Yadri, H Erguig, LM Pérez, D Laroze, CV Nguyen, ... Physica E: Low-dimensional Systems and Nanostructures 134, 114826	7	2021
<input type="checkbox"/> A proposal to enhance SnS solar cell efficiency: the incorporation of SnSSe nanostructures M Courel, P Beltrán-Bobadilla, FJ Sánchez-Rodríguez, IM De Los Santos, ... Journal of Physics D: Applied Physics 54 (50), 505501	3	2021
<input type="checkbox"/> Non-resonant intense laser field effect on the nonlinear optical properties associated to the inter-and intra-band transitions in an anharmonic quantum well submitted to ... A Turkoglu, N Aghoutane, E Feddi, ME Mora-Ramos, F Ungan Solid State Communications 334, 114390	6	2021
<input type="checkbox"/> Effects of hydrostatic pressure and temperature on the nonlinear optical properties of semiparabolic plus semi-inverse squared quantum wells GL Xu, Z Zhen, YS Shi, KX Guo, E Feddi, JH Yuan, ZH Zhang Communications in Theoretical Physics 73 (8), 085502	4	2021
<input type="checkbox"/> Adjustment of Terahertz Properties Assigned to the First Lowest Transition of (D ⁺ , X) Excitonic Complex in a Single Spherical Quantum Dot Using Temperature ... N Aghoutane, LM Pérez, A Tiutiunnyk, D Laroze, S Baskoutas, F Dujardin, ... Applied Sciences 11 (13), 5969	4	2021
<input type="checkbox"/> Quantum confined stark effect on the linear and nonlinear optical properties of SiGe/Si semi oblate and prolate quantum dots grown in Si wetting layer Varsha, M Kria, JE Hamdaoui, LM Perez, V Prasad, M El-Yadri, D Laroze, ... Nanomaterials 11 (6), 1513	12	2021
<input type="checkbox"/> The nonlinear optical absorption in As/GaAs double-graded quantum wells: magnetic field effect and the position-dependent effective mass effect H Yu, Z Zhen, YS Shi, KX Guo, E Feddi, JH Yuan, ZH Zhang The European Physical Journal Plus 136 (5), 555	11	2021
<input type="checkbox"/> Influence of Geometrical Shape on the Characteristics of the Multiple InN/In _x Ga _{1-x} N Quantum Dot Solar Cells AE Aouami, LM Pérez, K Feddi, M El-Yadri, F Dujardin, MJ Suazo, ... Nanomaterials 11 (5), 1317	7	2021
<input type="checkbox"/> Wetting layer and size effects on the nonlinear optical properties of semi oblate and prolate Si0.7Ge0.3/Si quantum dots M Kria, M Farkous, V Prasad, F Dujardin, LM Pérez, D Laroze, E Feddi Current applied Physics 25, 1-11	20	2021
<input type="checkbox"/> Quantum Confined Stark Effect on the Linear and Nonlinear Optical Properties of SiGe/Si Semi Oblate and Prolate Quantum Dots Grown in Si Wetting Layer. Nanomaterials 2021, 11, 1513		2021

TITLE	CITED BY	YEAR
JE Hamdaoui, LM Pérez, V Prasad, M El-Yadri, D Laroze, EM Feddi s Note: MDPI stays neutral with regard to jurisdictional claims in published ...		
<input type="checkbox"/> Magnetic properties of exciton trapped by an off-center ionized donor in single quantum dot SB E.Feddi J.Bosch, A.Talbi Current Applied Physics 23 (March 2021), 1-7	1	2021
<input type="checkbox"/> LO-Phonons and dielectric polarization effects on the electronic properties of doped GaN/InN spherical core/shell quantum dots in a nonparabolic band model A Talbi, M El Haouari, K Nouneh, LM Pérez, A Tiutiunnyk, D Laroze, ... Applied Physics A 127, 1-17	4	2021
<input type="checkbox"/> Impact of conduction band non-parabolicity and dielectric mismatch on photoionization cross section of donor bound polaron in spherical GaN/InN core-shell nanoparticle A Talbi, M El Haouari, K Nouneh, EM Feddi, M Addou The European Physical Journal Applied Physics 93 (1), 10401	1	2021
<input type="checkbox"/> Numerical modeling of the size effect in CdSe/ZnS and InP/ZnS-based intermediate band solar cells A El Aouami, K Feddi, M Courel, F Dujardin, D Laroze, LM Pérez, ... Physica Scripta 96 (3), 035502	4	2020
<input type="checkbox"/> Thermodynamic properties of SnO₂/GaAs core/shell nanofiber M Kria, K Feddi, N Aghoutane, M El-Yadri, LM Pérez, D Laroze, ... Physica A: Statistical Mechanics and its Applications 560, 125104	10	2020
<input type="checkbox"/> Linear and nonlinear optical properties of a single dopant in GaN conical quantum dot with spherical cap A El Aouami, M Bikerouin, K Feddi, N Aghoutane, M El-Yadri, E Feddi, ... Philosophical Magazine 100 (19), 2503-2523	19	2020
<input type="checkbox"/> Geometrical confinement effects on fundamental thermal properties of rutile and anatase TiO₂ cylindrical and tubular nanostructures K Feddi, M Kria, M El-Yadri, FCF Mbognou, G Long, A Tiutiunnyk, ... Physica Scripta 95 (10), 105706	2	2020
<input type="checkbox"/> One pot synthesis of silver nanoparticles on ITO surfaces: investigation of optical and electrochemical properties N El Harfaouia, Y Khassaïsa, K Nouneh, A Belahmar, A Talbi, ... The European Physical Journal Applied Physics 91 (3), 30401	10	2020
<input type="checkbox"/> Forecasting and analysis of nonlinear optical responses by tuning the thickness of a doped hollow cylindrical quantum dot M Kria, M El-Yadri, N Aghoutane, LM Pérez, D Laroze, E Feddi Chinese Journal of Physics 66, 444-452	24	2020
<input type="checkbox"/> Excitons in spherical quantum dots revisited: analysis of colloidal nanocrystals RL Restrepo, WA Ospina-Muñoz, E Feddi, ME Mora-Ramos, JA Vinasco, ... The European Physical Journal B 93, 1-9	3	2020
<input type="checkbox"/> Phonons correction of the energy and photoionization cross section in polar semiconductors and hollow nanoparticles EMF Safae M'zerd, Abdelali Talbi, Mouad Bikerouin, Mohamed El Haouari ... journal of materials research	2	2020

TITLE	CITED BY	YEAR
<input type="checkbox"/> Internal polarization electric field effects on the efficiency of InN/In _x Ga _{1-x} N multiple quantum dot solar cells A El Aouami, M Bikerouin, M El-Yadri, E Feddi, F Dujardin, M Courel, ... Solar energy 201, 339-347	13	2020
<input type="checkbox"/> Modeling the simultaneous effects of thermal and polarization in InGaN/GaN based high electron mobility transistors H Belmabrouk, B Chouchen, EM Feddi, F Dujardin, I Tlili, MB Ayed, ... Optik 207, 163883	14	2020
<input type="checkbox"/> Effect of lattice deformation on electronic and optical properties of CuGaSe ₂ : Ab-initio calculations M Bikerouin, M Balli, M Farkous, M El-Yadri, F Dujardin, AB Abdellah, ... Thin Solid Films 696, 137783	11	2020
<input type="checkbox"/> Revisiting the adiabatic approximation for bound states calculation in axisymmetric and asymmetrical quantum structures JA Vinasco, A Radu, A Tiutiunnyk, RL Restrepo, D Laroze, E Feddi, ... Superlattices and Microstructures 138, 106384	5	2020
<input type="checkbox"/> Strain effects on the electronic and optical properties of Van der Waals heterostructure MoS ₂ /WS ₂ : A first-principles study M Farkous, M Bikerouin, DV Thuan, Y Benhouria, M El-Yadri, E Feddi, ... Physica E: Low-dimensional Systems and Nanostructures 116, 113799	19	2020
<input type="checkbox"/> Optical Absorption Coefficient on-center donor impurity in a spherical core/shell quantum dots S M'zerd, M El Haouari, E Feddi, ME Mora-Ramos, A Jorio, I Zorkani MATEC Web of Conferences 330, 01041		2020
<input type="checkbox"/> Donor impurity energy and optical absorption in spherical sector quantum dots ME Mora-Ramos, A El Aouami, E Feddi, A Radu, RL Restrepo, ... Heliyon 6 (1)	17	2020
<input type="checkbox"/> Optoelectronic properties of phosphorene quantum dots functionalized with free base porphyrins A Samia, E Feddi, CA Duque, ME Mora-Ramos, V Akimov, JD Correa Computational Materials Science 171, 109278	6	2020
<input type="checkbox"/> Influence of position-dependent effective mass on the nonlinear optical properties in Al _x Ga _{1-x} -XAs/GaAs single and double triangular quantum wells Q Zhao, S Aiqiqi, JF You, M Kria, KX Guo, E Feddi, ZH Zhang, JH Yuan Physica E: Low-dimensional Systems and Nanostructures 115, 113707	36	2020
<input type="checkbox"/> Modeling the impact of temperature effect and polarization phenomenon on InGaN/GaN-Multi-quantum well solar cells B Chouchen, A El Aouami, MH Gazzah, A Bajahzar, EM Feddi, F Dujardin, ... Optik 199, 163385	13	2019
<input type="checkbox"/> The effect of temperature, hydrostatic pressure and magnetic field on the nonlinear optical properties of AlGaAs/GaAs semi-parabolic quantum well JF You, Q Zhao, ZH Zhang, JH Yuan, KX Guo, E Feddi International Journal of Modern Physics B 33 (27), 1950325	23	2019
<input type="checkbox"/> Magneto-optical effect in GaAs/GaAlAs semi-parabolic quantum well ND Hien, CA Duque, E Feddi, NV Hieu, HD Trien, LTT Phuong, BD Hoi, ... Thin Solid Films 682, 10-17	57	2019

TITLE	CITED BY	YEAR
<input type="checkbox"/> Excitonic nonlinear optical properties in AlN/GaN spherical core/shell quantum dots under pressure N Aghoutane, M El-Yadri, A El Aouami, E Feddi, G Long, M Sadoqi, ... MRS Communications 9 (2), 663-669	11	2019
<input type="checkbox"/> One-and two-photon-induced magneto-optical properties of hyperbolic-type quantum wells ND Hien, DV Thuan, CA Duque, E Feddi, F Dujardin, LTT Phuong, BD Hoi, ... Optik 185, 1261-1269	6	2019
<input type="checkbox"/> Optical absorption of excitons in strained quasi 2D GaN quantum dot N Aghoutane, M El-Yadri, A El Aouami, EM Feddi, F Dujardin, ... physica status solidi (b) 256 (5), 1800361	10	2019
<input type="checkbox"/> Impact of heavy hole levels on the photovoltaic conversion efficiency of $In_xGa_{1-x}N$ /InN quantum dot intermediate band solar cells A El Aouami, K Feddi, M El Haouari, M El Yadri, NB Afkir, M Zazoui, ... Superlattices and Microstructures 129, 202-211	7	2019
<input type="checkbox"/> Electronic and optical properties of layered van der Waals heterostructure based on MS ₂ (M= Mo, W) monolayers M Farkous, M Bikerouin, HTT Phung, M El-Yadri, E Feddi, F Dujardin, ... Materials Research Express 6 (6), 065060	15	2019
<input type="checkbox"/> Control of simultaneous effects of the temperature, indium composition and the impact ionization process on the performance of the InN/ $In_xGa_{1-x}N$ quantum dot solar cells NB Afkir, E Feddi, J Meziane, YEL Kouari, M Zazoui, A Migalska-Zalas Opto-Electronics Review 27 (1), 25-31	6	2019
<input type="checkbox"/> Hydrothermal Synthesis and Characterization of Mn-Doped VO ₂ Nanowires G Long, D Matatov, A Suissa, E Feddi, M El Yadri, K Feddi, M Sadoqi MRS Advances 4, 829-836	2	2019
<input type="checkbox"/> Electronic states in GaAs-(Al, Ga) As eccentric quantum rings under nonresonant intense laser and magnetic fields JA Vinasco, A Radu, E Niculescu, ME Mora-Ramos, E Feddi, V Tulupenko, ... Scientific Reports 9 (1), 1427	45	2019
<input type="checkbox"/> A correlation study of PbS nanoparticles synthesis conditions and material properties using XRD analysis G Long, E Feddi, EM Lotfi, M Sadoqi APS March Meeting Abstracts 2019, V21. 006		2019
<input type="checkbox"/> Refractive index changes and optical absorption involving 1s–1p excitonic transitions in quantum dot under pressure and temperature effects N Aghoutane, M El-Yadri, A El Aouami, E Feddi, F Dujardin, M El Haouari, ... Applied Physics A 125, 1-8	19	2019
<input type="checkbox"/> Effect of Conduction Band Non-Parabolicity on the Nonlinear Optical Properties in GaAs/Ga _{1-x} Al _x As Double Semi-V-shaped Quantum Wells ZH Zhang, JH Yuan, KX Guo, E Feddi Materials 12 (1), 78	21	2018
<input type="checkbox"/> Electric field effect on the photoionization cross section of a single dopant in a strained AlAs/GaAs spherical core/shell quantum dot S M'zerd, M El Haouari, M Aghoutane, M El-Yadri, E Feddi, F Dujardin, ... Journal of Applied Physics 124 (16)	18	2018

TITLE	CITED BY	YEAR
<input type="checkbox"/> Fundamental exciton transitions in SiO ₂ /Si/SiO ₂ cylindrical core/shell quantum dot M El-Yadri, E Feddi, N Aghoutane, A El Aouami, A Radu, F Dujardin, ... Journal of Applied Physics 124 (14)	11	2018
<input type="checkbox"/> MD simulation-based study on the thermodynamic, structural and liquid properties of gold nanostructures R Essajai, A Rachadi, E Feddi Materials Chemistry and Physics 218, 116-121	19	2018
<input type="checkbox"/> First principles study on the electronic properties and Schottky barrier of Graphene/InSe heterostructure KD Pham, NN Hieu, VV Ilyasov, HV Phuc, BD Hoi, E Feddi, NV Thuan, ... Superlattices and Microstructures 122, 570-576	29	2018
<input type="checkbox"/> Effect of strains on electronic and optical properties of monolayer SnS: Ab-initio study DQ Khoa, CV Nguyen, HV Phuc, VV Ilyasov, TV Vu, NQ Cuong, BD Hoi, ... Physica B: Condensed Matter 545, 255-261	20	2018
<input type="checkbox"/> Effects of geometry on the electronic properties of semiconductor elliptical quantum rings JA Vinasco, A Radu, E Kasapoglu, RL Restrepo, AL Morales, E Feddi, ... Scientific Reports 8 (1), 13299	38	2018
<input type="checkbox"/> Effect of conduction band non-parabolicity on bound polaron fundamental state in GaN/InN core shell quantum dots M El Haouari, ME Mora-Ramos, A Talbi, E Feddi, F Dujardin Physica E: Low-dimensional Systems and Nanostructures 103, 188-193	3	2018
<input type="checkbox"/> Tuning the Electronic and Optical Properties of Two-Dimensional Graphene-like Nanosheet by Strain Engineering HV Phuc, VV Tuan, NN Hieu, VV Ilyasov, IA Fedorov, BD Hoi, LTT Phuong, ... Journal of Electronic Materials 47, 4594-4603	14	2018
<input type="checkbox"/> Impact of electron-LO-phonon correction and donor impurity localization on the linear and nonlinear optical properties in spherical core/shell semiconductor quantum dots S M'zerd, M El Haouari, A Talbi, E Feddi, ME Mora-Ramos Journal of Alloys and Compounds 753, 68-78	18	2018
<input type="checkbox"/> Interplay between normal and abnormal stark shift according to the quantum dot spherical core/shell size ratio A Talbi, E Haouari, E Feddi, F Dujardin, M Addou, CA Duque Philosophical Magazine Letters 98 (6), 252-265	9	2018
<input type="checkbox"/> Electronic state and photoionization cross section of a single dopant in GaN/InGaN core/shell quantum dot under magnetic field and hydrostatic pressure AE Aouami, E Feddi, A Talbi, F Dujardin, CA Duque Applied Physics A 124, 1-11	14	2018
<input type="checkbox"/> New way for determining electron energy levels in quantum dots arrays using finite difference method F Dujardin, E Assaid, E Feddi Superlattices and Microstructures 118, 256-265	6	2018
<input type="checkbox"/> Temperature and hydrostatic pressure effects on single dopant states in hollow cylindrical core-shell quantum dot M El-Yadri, N Aghoutane, A El Aouami, E Feddi, F Dujardin, CA Duque Applied Surface Science 441, 204-209	38	2018
<input type="checkbox"/> Wetting layer effect on impurity-related electronic properties of different (In, Ga) N QD-shapes H El Ghazi, A Jorio, I Zorkani, EM Feddi, A El Mouchtachi Physica B: Condensed Matter 537, 207-211	4	2018
<input type="checkbox"/> Characteristics and parameters extracting of sub cells in		2018

TITLE	CITED BY	YEAR
dual-junction solar cells via capacitance-voltage measurement MA Kinani, A Amine, Y Mir, M Zazoui, E Feddi 2018 Renewable Energies, Power Systems & Green Inclusive Economy (REPS-GIE), 1-5		
<input type="checkbox"/> Pressure effect on an exciton in a wurtzite AlN/GaN/AlN spherical core/shell quantum dot MS N. Aghoutane, M. El-Yadri, E. Feddi, F. Dujardin, J. Gen MRS communication (DOI: 10.1557/mrc.2018.74), 1-6	7*	2018
<input type="checkbox"/> Optical and magneto optical responses assigned to probable processes of formation of exciton bound to an ionized donor in quantum dot E Feddi, N Aghoutane, M El-Yadri, F Dujardin, A El Aouami, CA Duque Current Applied Physics 18 (4), 452-460	2	2018
<input type="checkbox"/> Photovoltaic conversion efficiency of InN/InxGa1-xN quantum dot intermediate band solar cells NB Afkir, E Feddi, F Dujardin, M Zazoui, J Meziane Physica B: Condensed Matter 534, 10-16	15	2018
<input type="checkbox"/> Excitonic binding energy in prolate and oblate spheroidal quantum dots F Dujardin, E Feddi, E Assaid Superlattices and Microstructures 114, 296-304	15	2018
<input type="checkbox"/> Electronic states and optical properties of single donor in GaN conical quantum dot with spherical edge A El Aouami, E Feddi, M El-Yadri, N Aghoutane, F Dujardin, CA Duque, ... Superlattices and Microstructures 114, 214-224	13	2018
<input type="checkbox"/> Linear and nonlinear magneto-optical properties of monolayer MoS ₂ CV Nguyen, NN Hieu, D Muoi, CA Duque, E Feddi, HV Nguyen, ... Journal of Applied Physics 123 (3)	39	2018
<input type="checkbox"/> Oscillator strength and quantum-confined Stark effect of excitons in a thin PbS quantum disk A Oukerroum, M El-Yadri, A El Aouami, E Feddi, F Dujardin, CA Duque, ... International Journal of Modern Physics B 32 (01), 1750266	5	2018
<input type="checkbox"/> Fluorescence Studies of Fe ₃ O ₄ -Au Hybrid Nanoparticles R Alsaidi, B Chaudhry, JS Uddin, A Nunez, A Baginski, S Hammond, ... MRS Advances 3 (14), 725-731		2018
<input type="checkbox"/> Optical transitions in strained wurtzite GaN ultrathin quantum disk under hydrostatic pressure effects M El-Yadri, N Aghoutane, A El Aouami, EM Feddi, M Zazoui, F Dujardin, ... Current Nanoscience 13 (6), 604-609	2	2017
<input type="checkbox"/> Optical Absorption and Electroabsorption Related to Electronic and Single Dopant Transitions in Holey Elliptical GaAs Quantum Dots CAD Juan Alejandro Vinasco, Mauricio Alejandro Londoño, Ricardo León ... physica status solidi (b) (DOI: 10.1002/pssb.201700470) 21 (11)	12*	2017
<input type="checkbox"/> Linear and nonlinear magneto-optical properties of an off-center single dopant in a spherical core/shell quantum dot E Feddi, A Talbi, ME Mora-Ramos, M El Haouari, F Dujardin, CA Duque Physica B: Condensed Matter 524, 64-70	43	2017
<input type="checkbox"/> Magnetic field and dielectric environment effects on an exciton trapped by an ionized donor in a spherical quantum dot N Aghoutane, E Feddi, M El-Yadri, JB Bailach, F Dujardin,	7	2017

TITLE	CITED BY	YEAR
CA Duque Superlattices and Microstructures 111, 1082-1092		
<input type="checkbox"/> Polaronic effects on the off-center donor impurity in AlAs/GaAs/SiO₂ spherical core/shell quantum dots M El Haouari, E Feddi, F Dujardin, RL Restrepo, ME Mora-Ramos, ... Superlattices and Microstructures 111, 457-465	7	2017
<input type="checkbox"/> On the electronic states in lens-shaped quantum dots L Aderras, E Feddi, A Bah, F Dujardin, CA Duque physica status solidi (b) 254 (10), 1700144	8	2017
<input type="checkbox"/> Spatial separation effect on the energies of uncorrelated and correlated electron-hole pair in CdSe/ZnS and InAs/InP core/shell spherical quantum dots A Zouitine, A Ibral, E Assaid, F Dujardin, E Feddi Superlattices and Microstructures 109, 123-133	22	2017
<input type="checkbox"/> Donor impurity-related photoionization cross section in GaAs cone-like quantum dots under applied electric field E Iqraoun, A Sali, A Rezzouk, E Feddi, F Dujardin, ME Mora-Ramos, ... Philosophical Magazine 97 (18), 1445-1463	28	2017
<input type="checkbox"/> Stark-shift of impurity fundamental state in a lens shaped quantum dot L Aderras, A Bah, E Feddi, F Dujardin, CA Duque Physica E: Low-dimensional Systems and Nanostructures 89, 119-123	19	2017
<input type="checkbox"/> Photoionization cross section and binding energy of single dopant in hollow cylindrical core/shell quantum dot E Feddi, M El-Yadri, F Dujardin, RL Restrepo, CA Duque Journal of Applied Physics 121 (6)	32	2017
<input type="checkbox"/> Tunable excitonic transitions in strained GaAs ultra-thin quantum disk M El-Yadri, N Aghoutane, E Feddi, F Dujardin Superlattices and Microstructures 102, 382-390	11	2017
<input type="checkbox"/> Linear and nonlinear optical properties of a single dopant in strained AlAs/GaAs spherical core/shell quantum dots M El Haouari, A Talbi, E Feddi, H El Ghazi, A Oukerroum, F Dujardin Optics Communications 383, 231-237	50	2017
<input type="checkbox"/> Consequences of dielectric mismatch on the engineering band gap of PbS/CdS core/shell quantum dots A Zouitine, A Ibral, E Feddi, E Assaid Dielectric Materials and Applications: ISyDMA'2016 1, 147	1	2016
<input type="checkbox"/> Control of the binding energy by tuning the single dopant position, magnetic field strength and shell thickness in ZnS/CdSe core/shell quantum dot A Talbi, E Feddi, A Zouitine, M El Haouari, M Zazoui, A Oukerroum, ... Physica E: Low-dimensional Systems and Nanostructures 84, 303-309	21	2016
<input type="checkbox"/> Hydrogenic donor impurity in InAs/GaAs core/shell quantum dots: Effect of the dielectric environment M El Haouari, E Feddi, A Talbi 2016 International Conference on Electrical and Information Technologies ...	1	2016
<input type="checkbox"/> Excitonic transitions in spherical inhomogeneous QD, new monocolour nanosource F Benhaddou, I Zorkani, A Jorio, E Feddi Physica B: Condensed Matter 477, 100-104	8	2015
<input type="checkbox"/> Theoretical investigation of single dopant in core/shell nanocrystal in magnetic field A Talbi, E Feddi, A Oukerroum, E Assaid, F Dujardin, M Addou Superlattices and Microstructures 85, 581-591	26	2015

TITLE	CITED BY	YEAR
<input type="checkbox"/> The simultaneous effects of the hydrostatic pressure and magnetic field on the donor confined in inhomogeneous quantum dots M El Haouari, E Feddi, A Oukerroum, E Assaid 2015 International Conference on Electrical and Information Technologies ...		2015
<input type="checkbox"/> Size dependence of the polarizability and Haynes rule for an exciton bound to an ionized donor in a single spherical quantum dot E Feddi, A Zouitine, A Oukerroum, F Dujardin, E Assaid, M Zazoui Journal of Applied Physics 117 (6)	23	2015
<input type="checkbox"/> Polarization effects on spectra of spherical core/shell nanostructures: Perturbation theory against finite difference approach A Ibral, A Zouitine, EM Assaid, H El Achouby, EM Feddi, F Dujardin Physica B: Condensed Matter 458, 73-84	12	2015
<input type="checkbox"/> Binding energy and spatial extension of an off-centre donor impurity in ZnS/CdSe spherical core/shell nanostructures A Ibral, A Zouitine, EM Assaid, EM Feddi, F Dujardin Journal of Optoelectronics and Advanced Materials 17 (1-2), 151-159	5	2015
<input type="checkbox"/> Ground state energy and wave function of an off-centre donor in spherical core/shell nanostructures: Dielectric mismatch and impurity position effects A Ibral, A Zouitine, EM Assaid, EM Feddi, F Dujardin Physica B: Condensed Matter 449, 261-268	27	2014
<input type="checkbox"/> Effects of dielectric mismatch and effective mass mismatch on exciton ground state energy in spherical core/shell nanostructures A Ibral, A Zouitine, S Aazou, EM Assaid, EM Feddi, F Dujardin J. Optoelectron. Adv. Mater 15 (11-12), 1268-1274	10	2013
<input type="checkbox"/> Lateral induced dipole moment and polarizability of excitons in a ZnO single quantum disk F Dujardin, E Feddi, A Oukerroum, J Bosch Bailach, J Martínez-Pastor, ... Journal of Applied Physics 113 (6)	18	2013
<input type="checkbox"/> J Martínez-Pastor & Assaid E F Dujardin, E Feddi, A Oukerroum, JB Bailach J Appl Phys 113, 064314	2	2013
<input type="checkbox"/> Effect of a lateral electric field on an off-center single dopant confined in a thin quantum disk F Dujardin, A Oukerroum, E Feddi, J Bosch Bailach, J Martínez-Pastor, ... Journal of Applied Physics 111 (3)	27	2012
<input type="checkbox"/> Finite difference numerical solution of Poisson equation in a Schottky barrier diode using maple EM Assaid, S Aazou, A Ibral, EM Feddi 2011 Faible Tension Faible Consommation (FTFC), 123-126	1	2011
<input type="checkbox"/> On the anomalous Stark effect in a thin disc-shaped quantum dot A Oukerroum, E Feddi, JB Bailach, J Martínez-Pastor, F Dujardin, ... Journal of Physics: Condensed Matter 22 (37), 375301	30	2010
<input type="checkbox"/> Stark shift and dissociation process of an ionized donor bound exciton in spherical quantum dots F Dujardin, E Feddi, E Assaid, A Oukerroum The European Physical Journal B 74, 507-516	35	2010
<input type="checkbox"/> Schottky diode parameters extraction using two different methods S Aazou, EM Assaid	15	2009

TITLE	CITED BY	YEAR
2009 International Conference on Microelectronics-ICM, 240-243		
<input type="checkbox"/> Exact analytical solutions for shallow impurity states in symmetrical paraboloidal and hemiparaboloidal quantum dots M Assaid, M Aydi, M Feddi, F Dujardin Open Physics 6 (1), 97-104	<u>13</u>	2008
<input type="checkbox"/> Exact analytical solutions for shallow impurity states in symmetrical paraboloidal and hemiparaboloidal quantum dots M Assaid, M Aydi, M Feddi, F Dujardin Open Physics 6 (1), 97-104	<u>13</u>	2008
<input type="checkbox"/> Exact Analytical Expressions of Graëtz Bridge Currents and Voltages Using Lambert W Function EM Assaid, EM Feddi 2007 14th IEEE International Conference on Electronics, Circuits and Systems ...	<u>7</u>	2007
<input type="checkbox"/> Magneto-bound polaron in CdSe spherical quantum dots: strong coupling approach J El Khamkhami, E Feddi, E Assaid, F Dujardin, B Stebe, M El Haouari Physica E: Low-dimensional Systems and Nanostructures 25 (4), 366-373	<u>48</u>	2005
<input type="checkbox"/> Magnetic field effect on the polarizability of bound polarons in quantum nanocrystallites E Feddi, M El Haouari, E Assaid, B Stébé, J El Khamkhami, F Dujardin Physical Review B 68 (23), 235313	<u>33</u>	2003
<input type="checkbox"/> Effect of charge carrier–phonon coupling on the energy of shallow donors in CdSe quantum dots E Feddi, M El Haouari, E Assaid, B Stébé, J El Khamkhami, F Dujardin physica status solidi (b) 240 (1), 106-115	<u>9</u>	2003
<input type="checkbox"/> Parametrized equations for excitons in two-dimensional semiconductor quantum wells with arbitrary potential profiles J Diouri, A Taqi, A El Haddad, M Katih, E Feddi Semiconductor science and technology 18 (4), 377	<u>12</u>	2003
<input type="checkbox"/> Semiconductors II: Surfaces, interfaces, microstructures, and related topics-Magnetic field effect on the polarizability of bound polarons in quantum nanocrystallites E Feddi, M El Haouari, E Assaid, B Stebe, J El Khamkhami, F Dujardin Physical Review-Section B-Condensed Matter 68 (23), 235313-235313	<u>1</u>	2003
<input type="checkbox"/> Excitons in InP/InAs inhomogeneous quantum dots E Assaid, E Feddi, J El Khamkhami, F Dujardin Journal of Physics: Condensed Matter 15 (2), 175	<u>14</u>	2002
<input type="checkbox"/> Binding energy of excitons in inhomogeneous quantum dots under uniform electric field J El Khamkhami, E Feddi, E Assaid, F Dujardin, B Stébé, J Diouri Physica E: Low-dimensional Systems and Nanostructures 15 (2), 99-106	<u>26</u>	2002
<input type="checkbox"/> Ground state energies and optical properties of an exciton and an exciton bound to an ionized donor impurity in CdSe polar semiconductor nanocrystallite E Assaid, J El Khamkhami, E Feddi, M Khaidar, B Stebe Physics of Low-Dimensional Structures (PLDS) 3, 33-49		2002
<input type="checkbox"/> Electric field effect on the energy of an off-centre donor in quantum crystallites E Assaid, E Feddi, M Khaidar, F Dujardin, B Stébé physica scripta 63 (4), 329	<u>38</u>	2001
<input type="checkbox"/> Condensed matter: Electronic structure, electrical, magnetic and optical properties-Electric Field Effect on the Energy of an Off-Centre Donor in Quantum Crystallites.		2001

TITLE	CITED BY	YEAR
E Assaid, E Feddi, M Khaidar, F Dujardin, B Stebe Physica Scripta 63 (4), 329-335		
<input type="checkbox"/> Condensed matter: Electronic structure, electrical, magnetic and optical properties-Low Magnetic Field Effect on the Polarisability of Excitons in Spherical Quantum Dots. JE Khamkhami, E Feddi, EAF Dujardin, B Stebe, J Diouri Physica Scripta 64 (5), 504-508		2001
<input type="checkbox"/> Low magnetic field effect on the polarisability of excitons in spherical quantum dots J El Khamkhami, E Feddi, E Assaid, F Dujardin, B Stébé, J Diouri Physica Scripta 64 (5), 504	10	2001
<input type="checkbox"/> Binding energy of excitons in spherical quantum dot quantum well with uniform electric field J El Khamkhami, E Feddi, E Assaid, F Dujardin, B Stébé, J Diouri PHYSICS OF LOW DIMENSIONAL STRUCTURES, 131-142	8	2001
<input type="checkbox"/> Magnetic field influence on the polarisability of donors in quantum crystallites E Feddi, E Assaid, F Dujardin, B Stébé, J Diouri Physica Scripta 62 (1), 88	25	2000
<input type="checkbox"/> Condensed matter: Electronic structure, electrical, magnetic and optical properties-Magnetic Field Influence on the Polarisability of Donors in Quantum Crystallites E Feddi, E Assaid, F Dujardin, B Stebe, J Diouri Physica Scripta 62 (1), 88-91		2000
<input type="checkbox"/> Optical and magneto-optical absorption of negatively charged excitons in three-and two-dimensional semiconductors B Stébé, E Feddi, A Ainane, F Dujardin Physical Review B 58 (15), 9926	92	1998
<input type="checkbox"/> Semiconductors II: Surfaces, interfaces, microstructures, and related topics-Optical and magneto-optical absorption of negatively charged excitons in three-and two-dimensional B Stebe, E Feddi, A Ainane, F Dujardin Physical Review-Section B-Condensed Matter 58 (15), 9926-9932		1998
<input type="checkbox"/> Ground state energy of the negatively charged exciton X- in bidimensional semiconductors in a steady electric field F Dujardin, A El Hassani, E Feddi, B Stébé Solid state communications 103 (9), 515-518	7	1997
<input type="checkbox"/> Electric field effects on charged excitons in semiconductors E Feddi, F Dujardin, J Diouri, A Elhassani, M Katih, B Stebe physica status solidi (b) 201 (2), 521-528	5	1997
<input type="checkbox"/> Binding Energy of the Excitonic Ions X- and X in a Weak Electric Field M Katih, J Diouri, E Feddi physica status solidi (b) 175 (2), 349-354	5	1993
<input type="checkbox"/> Action d'un champ magnétique sur les trions excitoniques dans les semiconducteurs EM Feddi ANRT		1987
<input type="checkbox"/> Excitonic trions in a low magnetic field B Stébé, E Feddi, G Munschy Physical Review B 35 (9), 4331	34	1987
<input type="checkbox"/> Magnetic field effect upon excitonic trions in semiconductors EM Feddi Université Paul Verlaine-Metz		1987