

CURRICULUM VITEA

Personal Details

Full Name: Ahmed Rebey
Date of Birth: March 10, 1969
Place of Birth: Gabès, Tunisia
Nationality: Tunisian
Sex: Male
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Address: Department of Physics
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Academic Qualification

Postgraduate work "University Habilitation to direct/supervise PhD theses":
Condensed Matter, Faculty of Sciences of Tunis, **2005**. El Manar University Tunisia.

Ph. D Thesis: Condensed Matter, Faculty of Sciences of Tunis, **2000**. El Manar University Tunisia.
In situ Laser reflectometry monitoring of the growth of III-V semi-conductors epitaxied by MOVPE

M. Sc. Physics: Condensed Matter, Faculty of Sciences of Tunis, **1995**. El Manar University Tunisia.

B. Sc. Physics: Faculty of Sciences of Monastir, **1992**. University of Monastir, Tunisia

Professional Experience

Date	Occupation	University
1994-1997	Contractual Assistant	Faculty of Sciences, Monastir, University- Tunisia
1998-1999	Assistant	Faculty of Sciences, Monastir, University- Tunisia
2000-2004	Assistant Professor	Faculty of Sciences, Monastir, University- Tunisia
2005-2009	Associate Professor	Faculty of Sciences, Monastir, University- Tunisia
2010-2017	Professor	Faculty of Sciences, Monastir, University- Tunisia
2018 till now	Professor	College of Science, Buraydah- Qassim University, Saudi Arabia

Main Research Areas

- Growth and characterization of solid materials,
- Growth process of III-V semiconductors compounds,
- Physical properties (electrical, optical and structural) of semiconductors,
- Elaboration and modelling of nanostructure (Dots, quantum wells) and thin films for devices applications,
- Characterization techniques: HRXRD, photoluminescence, Photoreflectance, Absorbance, Ellipsometry, DLTS, Hall effect, SEM.
- Nanodevices and theoretical design (DFT, Self-consistent calculations)

Publications:

GoogleScholar

<https://scholar.google.com/citations?user=3Vh8DeUAAAAJ&hl=en;>

Scopus

<https://www.scopus.com/inward/authorDetails.uri?authorID=6603784311&partnerID=5ESL7QZV&md5=100712f089808fc72190b6ee66275f98;>

	Title	Authors	Scientific journal
1	<i>In Situ Electrodeposition of Pb and Ag Applied on Fluorine Doped Tin Oxide Substrates: Comparative Experimental and Theoretical Study</i>	A. Rebey , R. Hamdi, I. Massoudi, B. Hammami	<i>Materials</i> 15 (24), 8865 (2022)
2	<i>Effects of the diameter of thermally generated nanopits on carrier dynamics in AlGaIn/GaN heterostructures</i>	M. Bouzidi, W. Malek, N. Chaaben, A. S. Alshammari, Z. R. Khan, M. Gandouzi, M. Mohamed, A.Rebey , A. A. Alatawi, A. I. Alhassan, A. Alharbi, J. P. Salvestrini, M. K. Shakfa	<i>Optical Engineering</i> 61 (10), 105106 (2022)
3	<i>Influence of the Substrate Material on the Structure and Morphological Properties of Bi Films</i>	S. Zouaghi, H. Fitouri, M. M. Habchi, E. Abdullah Ashaya, A. Rebey	<i>Journal of Surface Investigation: X-ray, Synchrotron and Neutron Techniques</i> , 2022, Vol. 16, No. 5, pp. 783–788
4	<i>Performance optimization of AlGaAs/GaAsBiN resonant tunneling diode</i>	A. Rebey , M. Mbarki, H. Rebei, S Messaoudi	<i>Optik</i> 268, 169793 (2022)
5	<i>In situ spectral reflectance analysis of the early stages of GaN thermal decomposition</i>	W. Malek, M. Bouzidi, N. Chaaben, A. S. Alshammari, A. Rebey	<i>Optik</i> 265, 169491 (2022)
6	<i>Density Functional Theory Study of Quaternary InPBiN Alloys Lattice</i>	R. Alaya, K. Kourchid, M. Mbarki, A. Rebey	<i>Optik</i> , 169344 (2022)

	<i>Matched to InP Substrate: Structural, Electronic and Optical properties</i>		
7	<i>Tunneling in matched AlGaAs/GaAsBiN superlattices</i>	A. Rebey, M. Mbarki, H. Rebei, S. Messaoudi	<i>Applied Physics A 128 (5), 1-10 (2022)</i>
8	<i>Optical Investigation of p-GaAs/i-GaN0.38yAs1-1.38 ySby/n-GaAs Quantum Wells Emitters</i>	I. Guizani, C. Bilel, M. Alrowaili, A. Rebey	<i>Journal of Nanotechnology, (2022)</i>
9	<i>Analysis of growth mechanisms and microstructure evolution of Pb+ 2 minor concentrations by electrodeposition technique</i>	A. Rebey, R. Hamdi, B. Hammami	<i>The European Physical Journal Plus 137 (3), 295 (2022)</i>
10	<i>Thermal processes contributions to the temperature dependence of the energy gap in dilute bismuth III-V alloys</i>	S. Zouaghi, H. Fitouri, A. Rebey	<i>Solid State Communications 343, 114649 (2022)</i>
11	<i>The band structure calculation of tensile strained GaNAsBi/GaAs quantum well heterostructure</i>	N. Ajnef, M. M. Habchi, A. Rebey	<i>Superlattices and Microstructures, 107156 (2022)</i>
12	<i>Optical characterization by photoreflectance of GaN after its partial thermal decomposition</i>	W. Malek, A. Kahouli, M. Bouzidi, N. Chaaben, Abdullah S. Alshammari, J. P. Salvestrini, A. Rebey	<i>Optik 248, 168070 (2021)</i>
13	<i>Study of Surface Stability and Electronic Structure of a Bi-terminated InAs (001) Surface Based on Ab Initio Calculations</i>	K. Kourchid, R. Alya, A. Rebey, and M. Mbarki	<i>Journal of Electronic Materials (2021)</i>
14	<i>GaAs-based strain-balanced GaN_xAs_{1-x-y}Bi_y type-I and -II multi-quantum wells for near-infrared photodetection range</i>	N. Ajnef, M.M. Habchi A. Rebey	<i>Thin Solid Films 726 (2021) 138655.</i>
15	<i>Theoretical study of strained GaNAsBi/GaAs quantum structures for application in infrared range</i>	W.Q. Jemmali, N. Ajnef, M.M. Habchi, A. Rebey	<i>Materials Science in Semiconductor Processing, 2021, 125, 105615</i>
16	<i>Biaxial strain effects on the band structure and absorption coefficient of GaAs_{1-x-y}N_xBi_y/GaAs MQWs calculated using k.p method</i>	N. Ajnef, W.Q. Jemmali, M.M. Habchi, A. Rebey	<i>Optik, 2020, 223, 165484</i>
17	<i>Effect of InAs buffer layer thickness on physical properties of InAsBi heterostructures grown by MOCVD</i>	I. Massoudi, A. Rebey	<i>Journal of Crystal Growth, 2020, 549, 125881</i>
18	<i>Adsorption of Bi adatom on InAs (001) – β2 (2 × 4) and α2 (2 × 4) surface: A first principles study.</i>	K. Kourchid, R. Alaya, A. Rebey and M. Mbarki	<i>Materials Science in Semiconductor Processing (2020), 107, 104856.</i>
19	<i>A Systematic Methodology for the Analysis of Multicomponent Photoreflectance Spectra Applied to GaAsBi/GaAs Structure</i>	I Guizani, H Fitouri, I Zaied, A Rebey	<i>Physics of the Solid State 62 (6), 1060-1066 (2020).</i>
20	<i>Spontaneous Emission Rate and</i>	I. Guizani, A. Rebey	<i>Journal of</i>

	<i>Radiative Current Density in p-GaAs/i-GaNAsBi/n-GaAs Quantum Well Lasers</i>		<i>Computational and Theoretical Nanoscience 16 (11), 4474-4478 (2019)</i>
21	<i>Electron Mobility Calculation of Diluted III–V-Nitrides Alloys</i>	K. Chakir, C. Bilel, and A. Rebey	<i>Semiconductors, 2019, Vol. 53, No. 13, pp. 10–14</i>
22	<i>First-principles study of atomic and electronic structure of Bi/InP (001)-α 2 (2 × 4) and β 2 (2 × 4) surfaces</i>	Hashassi, M., Ramzi, A., Kourchid, K., Rebey, A. , Mbarki, M.	<i>Materials Research Express 6 (10), 106303 (2019).</i>
23	<i>Analysis of in situ thin films epitaxy by reflectance spectroscopy: Effect of growth parameters</i>	Massoudi, I., Rebey, A.	<i>Superlattices and Microstructures 131, 66-85 (2019)</i>
24	<i>In situ monitoring of InAsBi alloy grown under alternated bismuth flows by metalorganic vapor phase epitaxy</i>	R Boussaha, H Fitouri, A Rebey	<i>Materials Science and Engineering B: Volume 241, February (2019), Pages 22-26</i>
25	<i>Effect of V/III ratio on the optical properties of (311) A and (311) B oriented InAlAs/InP heterostructures</i>	Badreddine Smiri, Ibtissem Fraj, Mohamed Bouzidi, Faouzi Saidi, Ahmed Rebey , Hassen Maaref	<i>Results in Physics Volume 12, March (2019), Pages 2175-2182</i>
26	<i>Study of Stark Effect in n-doped 1.55 μm InN_{0.92y}P_{1-1.92y}Bi_y/InP MQWs</i>	C Bilel, K Chakir, A Rebey , ZA Alrowaili	<i>Journal of Electronic Materials August (2018), Volume 47, Issue 8, pp 4757–4763</i>
27	<i>Comprehensive study of the structural, optical and electrical properties of InAlAs: Mg films lattice matched to InP grown by MOVPE</i>	Ezzedini.M.,Bouzidi.M. , Qaid. M.M., Rebey. A. , Sfaxi. L.	<i>Journal of Materials Science: Materials in Electronics 28(23), pp. 18221-18227 (2017)</i>
28	<i>Time-resolved photoluminescence and photoreflectance spectroscopy of GaN layers grown on SiN-treated sapphire substrate: Optical properties evolution at different growth stages</i>	Bouzidi. M., Soltani. S., Chine.Z., Rebey. A. , Shakfa.M.K.	<i>Optical Materials 73, pp. 252-259 (2017).</i>
29	<i>Investigation of Optical Gain in 1.55 μm p-i-n GaNAsBi-Based DQWs</i>	Guizani. I., Chakir. K., Habchi.M.M., Rebey. A.	<i>Physica Status Solidi (C) Current Topics in Solid State Physics 14(10),1700163 (2017)</i>
30	<i>MOVPE growth of InAsBi/InAs/GaAs heterostructure analyzed by in situ spectral reflectance</i>	Boussaha. R., Fitouri. H., Rebey.A. , El Jani. B.	<i>Journal of Materials Science: Materials in Electronics 28(12), pp. 8708-</i>

			8716 (2017)
31	<i>Effects of p-type doping and electric field on electronic band structure and optical properties of GaNAsBi/GaAs quantum well detectors operating at 1.55 μm</i>	Guizani. I., Bilel. C., Habchi.M.M., Rebey. A. , El Jani. B.	<i>Thin Solid Films</i> 630, pp. 66-70 (2017)
32	<i>Theoretical study of the carrier effective mass in diluted III-N-V semiconductor alloys by using 10-band k.p model</i>	Chakir. K., Bilel. C., Habchi. M.M., Rebey. A. , El Jani. B.	<i>Thin Solid Films</i> 630, pp. 25-30 (2017)
33	<i>Theoretical Predictions of Structural, Electronic, and Optical Properties of Dilute Bismide AlN1-xBix Zinc-Blend Structures.</i>	Alaya. R., Slama. S., Hashassi.M.,Mbarki.M., Rebey. A. , Alaya. S.	<i>Journal of Electronic Materials</i> 46(4), pp. 1977-1983 (2017)
34	<i>Discontinuities and bands alignments of strain-balanced III-V-N/III-V-Bi heterojunctions for mid-infrared photodetectors</i>	Chakir. K., Bilel. C., Habchi. M.M., Rebey. A.	<i>Superlattices and Microstructures</i> 102, pp. 56-63 (2017)
35	<i>Optical gain spectra of 1.55 μm GaAs/GaN.58yAs1-1.58yBi/GaAs single quantum well</i>	Guizani. I., Bilel. C., Habchi.M.M., Rebey. A.	<i>Superlattices and Microstructures.</i> 102, pp. 141-146 (2017).
36	<i>The influence of In composition on properties of InxGal-xAs/GaAs structures grown by MOVPE and in situ monitored by spectral reflectance</i>	Bedoui.M.,Habchi. M.M., Moussa. I., Rebey. A.	<i>Superlattices and Microstructures.</i> 101, pp. 436-445 (2017)
37	<i>Temperature dependence on the morphological evolution of dilute InAsBi/GaAs nanostructures grown by metalorganic vapor phase epitaxy</i>	Boussaha. R., Mzoughi. T., Fitouri. H., Rebey. A. , El Jani. B.	<i>Surface Review and Letters,</i> 24(8),1750105, (2017)
38	<i>Comprehensive study of p-i-n junction of GaAs solar cells by inserting self-organized InAs/InGaAs/GaAs quantum dot heterostructures with photoreflectance spectroscopy</i>	Maher Ezzedini, Mohamed Bouzidi, Zied Chine and Ahmed Rebey , Larbi Sfaxi.	<i>Int. J. Nanotechnology</i> (2016)
39	<i>Calculation of InAsBi ternary phase diagram</i>	N. Elayech, H. Fitouri, R. Boussaha, A. Rebey , B. El Jani	<i>Vacuum, Volume</i> 131, 1 September 2016, Pages 147-155
40	<i>Ab initio predictions of structure preferences and band gap character in ordered AlAs1-xBix alloys</i>	R. Alaya, M. Mbarki, A. Rebey , A. V. Postnikov	<i>Current Applied Physics, Volume</i> 16, March 2016, Pages 288-293
41	<i>Investigation of the doping and Stark effects on the band structure and optical absorption of 1.55 μm GaNAsBi/GaAs MQWs</i>	C. Bilel, M.M. Habchi, A. Ben Nasr,I. Guizani, A. Rebey , B. El Jani	<i>Current Applied Physics, Volume</i> 16, 1 March 2016, Pages 340-347
42	<i>Pressure and composition dependence of structural, electronic and optical properties of GaAsBi alloys</i>	R. Alaya, M. Mbarki, A. Rebey	<i>Materials Science in Semiconductor Processing, Volume</i> 40, December 2015,

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43	<i>Photoluminescence of GaAsBi/GaAs quantum dots grown by metalorganic vapor phase epitaxy</i>	H. Fitouri, K. Chakir, Z. Chine, A. Rebey , B. El Jani	<i>Materials Letters, Volume 152, 1 August 2015, Pages 45-47</i>
44	<i>Theoretical calculations of absorption spectra of GaNAsBi-based MQWs operating at 1.55 μm</i>	A. Ben Nasr, M.M. Habchi, C. Bilel, A. Rebey , B. El Jani.	<i>Journal of Alloys and Compounds, Volume 647, 29 June 2015, Pages 159-166</i>
45	<i>Photoreflectance analysis of annealed vanadium-doped GaAs thin films grown by metalorganic vapor phase epitaxy</i>	H. Fitouri, C. Bilel, I. Zaied, A. Bchetnia, A. Rebey , B. El Jani	<i>Solid State Communications, Volume 217, 4 June 2015</i>
46	<i>Bismuth catalyzed growth of GaAsBi nanowires by metalorganic vapor phase epitaxy</i>	Y. Essouda, H. Fitouri, R. Boussaha, N. Elayech, A. Rebey , B. El Jani	<i>Materials Letters, Volume 152, 30 May 2015, Pages 298-301</i>
47	<i>Carriers confinement study of GaNAsBi/GaAs QWs emitting at 1.3 and 1.55 μm</i>	A. Ben Nasr, M.M. Habchi, C. Bilel, A. Rebey , B. El Jani	<i>Semiconductors, Volume 49, 1 May 2015, Pages 593-599,</i>
48	<i>Stark effect in GaNAsBi/GaAs quantum wells operating at 1.55 μm</i>	C. Bilel, M.M. Habchi, A. Rebey , B. El Jani	<i>Thin Solid Films, Volume 581, 30 April 2015, Pages 70-74</i>
49	<i>Strain study of GaAs/In_xGa_{1-x}As/GaAs structures grown by MOVPE</i>	M. Bedoui, M.M. Habchi, I. Moussa, A. Rebey , B. El Jani	<i>Surface and Coatings Technology, Volume 295, 29 April 2015, Pages 107-111</i>
50	<i>n doping effect modeling in 1.3 μm GaN_{0.58}As_{1-1.58}Bi_y/GaAs quantum wells</i>	C. Bilel, M.M. Habchi, A. Rebey , B. El Jani	<i>Physica E: Low-Dimensional Systems and Nanostructures, Volume 69, May 2015, Pages 232-236</i>
51	<i>First principles calculations of structure parameters and transition pressures of GaN_{1-x}Bi_x alloys</i>	R. Alaya, M. Mbarki, A. Rebey	<i>Semiconductors, Volume 49, April 2015, Pages 279-284</i>
52	<i>Thermodynamic study of the ternary system gallium-arsenic-bismuth</i>	N. Elayech, H. Fitouri, Y. Essouda, A. Rebey , B. El Jani	<i>Physica Status Solidi (C) Current Topics in Solid State Physics, Volume 12, 1 January 2015, Pages 138-141</i>
53	<i>Photoreflectance and photoluminescence study of localization effects in GaAsBi alloys</i>	H. Fitouri, Y. Essouda, I. Zaied, A. Rebey , B. El Jani	<i>Optical Materials, Volume 42, 1 April 2015, Pages 67-71</i>
54	<i>Photoreflectance characterization of vanadium-doped GaAs layers grown by metalorganic vapor phase epitaxy</i>	C. Bilel, H. Fitouri, I. Zaied, A. Bchetnia, A. Rebey , B. El Jani	<i>Materials Science in Semiconductor Processing, Volume</i>

			31, March 2015, Pages 100-105
55	<i>Analysis of the VIS-NIR spectral reflectance of Bi/GaAs structures grown by MOVPE and UHVE</i>	M.M. Habchi, I. Massoudi, A. Rebey , R. Ben Chaâbane, B. El Jani	<i>Journal of Crystal Growth, Volume 395, 1 June 2014, Pages 26-30</i>
56	<i>Effect of growth temperature and GaAs substrate misorientation on the morphology of InAsBi nanoislands grown by metalorganic vapor phase epitaxy</i>	R. Boussaha, H. Fitouri, A. Rebey , B. El Jani	<i>Applied Surface Science, Volume 291, 1 February 2014, Pages 40-44</i>
57	<i>Atmospheric-pressure metal-organic vapor-phase epitaxy of GaAsBi alloys on high-index GaAs substrates</i>	I. Zaied, H. Fitouri, Z. Chine, A. Rebey , B. El Jani	<i>Journal of Physics and Chemistry of Solids, Volume 75, February 2014, Pages 244-251</i>
58	<i>Theoretical study of optoelectronic properties of GaAs_{1-x}Bi_x alloys using valence band anticrossing model</i>	M.M. Habchi, A. Ben Nasr, A. Rebey , B. El Jani	<i>Infrared Physics and Technology, Volume 67, November 2014, Pages 531-536</i>
59	<i>Self-consistent analysis of the band structure of doped lattice-matched GaNAsBi-based QWs operating at 1.55 μm</i>	M.M. Habchi, C. Bilel, A. Ben Nasr, A. Rebey, B. El Jani	<i>Materials Science in Semiconductor Processing, Volume 28, December 2014, Pages 108-114</i>
60	<i>Optical properties study of In_xGa_{1-x}As/GaAs structures using spectral reflectance, photoreflectance and near-infrared photoluminescence</i>	M.M. Habchi, N. Tounsi, M. Bedoui, I. Zaied, A. Rebey , B. El Jani	<i>Superlattices and Microstructures, Volume 73, September 2014, Pages 71-81</i>
61	<i>Structural and optical properties of In_xGa_{1-x}As strained layers grown on GaAs substrates by MOVPE</i>	M.M. Habchi, N. Tounsi, M. Bedoui, I. Zaied, A. Rebey , B. El Jani	<i>Physica E: Low-Dimensional Systems and Nanostructures, Volume 56, 31 August 2013, Pages 74-78</i>
62	<i>Electronic band structure calculation of GaNAsBi alloys and effective mass study</i>	M.M. Habchi, A. Ben Nasr, A. Rebey , B. El Jani	<i>Infrared Physics and Technology, Volume 61, 13 August 2013, Pages 88-93</i>
63	<i>Oxidation of bismuth nanodroplets deposit on GaAs substrate</i>	H. Fitouri, R. Boussaha, A. Rebey , B. El Jani	<i>Applied Physics A: Materials Science and Processing, Volume 112, September 2013, Pages 701-710</i>
64	<i>Optical properties study of In_{0.08}Ga_{0.92}As/GaAs using spectral reflectance, photoreflectance and near-infrared Photoluminescence,</i>	N. Tounsi, M.M. Habchi, Z. Chine, A. Rebey , B. El Jani	<i>Superlattices and Microstructures, Volume 59, 29 April 2013, Pages 133-143</i>

65	<i>Ab initio investigation of structural and electronic properties of zinc blende $AlN_{1-x}Bi_x$ alloys</i>	M. Mbarki, R. Alaya, A. Rebey	<i>Solid State Communications, Volume 155, February 2013, Pages 12-15</i>
65	<i>In Situ Spectral Reflectance Investigation of InAs/GaAs Heterostructures Grown by MOVPE</i>	<u>I. Massoudi, M.M. Habchi, A. Rebey, B. El Jani</u>	<i>Journal of Electronic Materials Volume 41, N°2 March 2012, 498-505.</i>
66	<i>High resolution X-ray diffraction study of InAs layers grown with and without bismuth flow on GaAs substrates by metalorganic vapor phase epitaxy</i>	T. Mzoughi, H. Fitouri, I. Moussa, A. Rebey , B. El Jani	<i>Journal of Alloys and Compounds, Volume 524, 25 May 2012, Pages 26-31</i>
67	<i>First principles calculations of structural and electronic properties of $GaN_{1-x}Bi_x$ alloys</i>	M. Mbarki, A. Rebey	<i>Journal of Alloys and Compounds, Volume 530, 25 July 2012, Pages 36-39</i>
68	<i>Optical and morphological study of misoriented GaAs substrates exposed to bismuth flow using in situ spectral reflectance and atomic force microscopy</i>	I. Massoudi, M.M. Habchi, A. Rebey , B. El Jani.	<i>Journal of Crystal Growth, Volume 353, Issue 1, 15 August 2012, Pages 77-82</i>
69	<i>Study of surface roughness using spectral reflectance measurements recorded during the MOVPE of InAs/GaAs heterostructures</i>	I. Massoudi, M.M. Habchi, A. Rebey , B. El Jani	<i>Physica E: Low-dimensional Systems and Nanostructures, Volume 44, Issues 7–8, April–May 2012, Pages 1282-1287</i>
70	<i>First principles calculation of physical properties of $GaAs_{1-x}Bi_x$ alloys</i>	M. Barki, A. Rebey	<i>Semicond. Sci. Technol. 26(10), 1050 20, 2011</i>
71	<i>Growth of GaAsBi alloy under alternated bismuth flows by metalorganic vapor phase epitaxy</i>	Z. Chine, H. Fitouri, I. Zaied, A. Rebey, B. El Jani	<i>Journal of Crystal Growth, Volume 330, Issue 1, 1 September 2011, Pages 35-38</i>
72	<i>Surfactant effect of bismuth in atmospheric pressure MOVPE growth of InAs layers on (100) GaAs substrates</i>	H. Ben Naceur, T. Mzoughi, I. Moussa, L. Nguyen, A. Rebey , B. El Jani	<i>Physica E: Low-dimensional Systems and Nanostructures, Volume 43, Issue 1, November 2010, Pages 106-110</i>
73	<i>Study of GaAsBi MOVPE growth on (1 0 0) GaAs substrate under high Bi flow rate by high resolution X-ray diffraction</i>	H. Fitouri, I. Moussa, A. Rebey , B. El Jani	<i>Microelectronic Engineering, Volume 88, Issue 4, April 2011, Pages 476-479</i>
74	<i>Photoreflectance and photoluminescence study of annealing</i>	Z Chine, H Fitouri, I Zaied, A Rebey and B	<i>Semicond. Sci. Technol. 25 065009,</i>

	<i>effects on GaAsBi layers grown by metalorganic vapor phase epitaxy</i>	El Jani	2010
75	<i>Properties of InAs grown on misoriented GaAs substrates by atmospheric pressure metal–organic vapor phase epitaxy</i>	H. Ben Naceur, T. Mzoughi, I. Moussa, A.Rebey , B. El Jani	<i>Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, Volume 268, Issues 3-4, February 2010, Pages 236-240</i>
76	<i>Photoreflectance and photoluminescence study of annealing effects on GaAsBi layers grown by metalorganic vapor phase epitaxy</i>	Z Chine, H Fitouri, I Zaied, A Rebey and B El Jani	<i>Semicond. Sci. Technol. 25 (2010) 065009</i>
77	<i>Spectroscopic ellipsometry study of GaAs_{1-x}Bi_x material grown on GaAs substrate by atmospheric pressure metal-organic vapor-phase epitaxy</i>	Nebiha Ben Sedrine, Imed Moussa, Hedi Fitouri, Ahmed Rebey , Belgacem El Jani, and Radhouane Chtourou	<i>Appl. Phys. Lett. 95, 011910 (2009)</i>
78	<i>Heteroepitaxial growth of thin InAs layers on GaAs(1 0 0) misoriented substrates: A structural and morphological comparison,</i>	H. Ben Naceur, I. Moussa, O. Tottereau, A. Rebey , B. El Jani	<i>Physica E: Low-dimensional Systems and Nanostructures, Volume 41, Issue 10, October 2009, Pages 1779-1783</i>
79	<i>Atmospheric-pressure metalorganic vapour phase epitaxy optimization of GaAsBi alloy</i>	I. Moussa, H. Fitouri, A. Rebey , B. El Jani	<i>Thin Solid Films, Volume 516, Issue 23, 1 October 2008, Pages 8372-8376</i>
80	<i>Effect of thermal annealing on structural and optical properties of the GaAs_{0.963}Bi_{0.037} alloy,</i>	<u>H Fitouri</u> , <u>Z Chine</u> , <u>A Rebey</u> and <u>B El Jani</u>	<i>Semicond. Sci. Technol. 23 125034 (2008)</i>
81	<i>AP-MOVPE of InGaAs on GaAs (0 0 1): Analysis of in situ reflectivity response</i>	M.M. Habchi, A. Rebey , B. El Jani	<i>Microelectronics Journal, Volume 39, Issue 12, December 2008, Pages 1587-1593</i>
82	<i>Temperature effect study on structural and morphological properties of In_{0.08}Ga_{0.92}As/GaAs structures grown by MOVPE</i>	M.M. Habchi, A. Rebey , B. El Jani	<i>Journal of Crystal Growth, Volume 310, Issue 24, 1 December 2008, Pages 5259-5265</i>
83	<i>Surface analysis of different oriented GaAs substrates annealed under bismuth flow</i>	H. Fitouri, I. Moussa, A.Rebey , B. El Jani	<i>J Journal of Crystal Growth, Volume 300, Issue 2, 15 March 2007, Pages 347-352</i>

84	<i>AP-MOVPE of thin GaAs_{1-x}Bi_x alloys</i>	H. Fitouri, I. Moussa, A. Rebey , A. Fouzri, B. El Jani	<i>Journal of Crystal Growth, Volume 295, Issue 2, 1 October 2006, Pages 114-118</i>
85	<i>Laser reflectometry in situ monitoring of InGaAs grown by atmospheric pressure metalorganic vapour phase epitaxy</i>	M.M. Habchi, A. Rebey , A. Fouzri, B. El Jani	<i>Applied Surface Science, Volume 253, Issue 1, 31 October 2006, Pages 275-278</i>
86	<i>Effects of thermal annealing on n-type GaAs:V grown by MOCVD</i>	<u>A Bchetnia</u> , <u>A Rebey</u> , <u>J L Fave</u> , <u>J C Bourgoinand</u> B El Jani,	<i>J. Phys. D: Appl. Phys.39 1337 (2006)</i>
87	<i>In depth study of the compensation in annealed heavily carbon doped GaAs</i>	A. Rebey , W. Fathallah, B. El Jani	<i>Microelectronics Journal, Volume 37, Issue 2, February 2006, Pages 158-166</i>
88	<i>Stress and density of defects in Si-doped GaN</i>	Z. Chine, A. Rebey , H. Touati, E. Goovaerts, M. Oueslati, B. El Jani, S. Laugt	<i>physica status solidi (a) Volume 203, Issue 8, Date: June 2006, Pages: 1954-1961</i>
89	<i>Statistical analysis of vanadium in gallium arsenide</i>	A. Rebey , A. Bchetnia, B. El Jani	<i>Physica status solidi(a) Volume 202, Issue 14, November 2005, Pages: 2759-2763</i>
90	<i>Comparative study between electrical and structural properties of heavily doped GaAs</i>	A. Rebey , Z. Chine, W. Fathallah, B. El Jani, E. Goovaerts, S. Laugt	<i>Microelectronics Journal 35 (2004) 875</i>
91	<i>Diffusion of Vanadium in GaAs</i>	A. Bchetnia, M. Souissi, A. Rebey , B. El Jani	<i>J. Cryst Growth 270 (2004) 376.</i>
92	<i>In situ reflectance monitoring of the growth and etching of AlAs/GaAs structures in MOVPE</i>	A. Rebey , M. M. Habchi, B. El Jani	<i>J. Cryst Growth 261 (2004) 450</i>
93	<i>study of GaAs layers grown on Ge substrates by MOVPE and in situ monitored by laser reflectometry</i>	A. Rebey , M. M. Habchi, Z. Benzarti, B. El Jani	<i>Microelectronics Journal 35 (2004) 179</i>
94	<i>In situ reflectance monitoring of GaAs/AlAs structures grown by MOVPE</i>	M. M. Habchi, A. Rebey , Z. Benzarti, B. El Jani	<i>Phys. Chem. News 16 (2004) 84</i>
95	<i>A study of deep levels in vanadium doped GaAs grown by MOVPE</i>	A. Bchetnia, A. Rebey , J. C. Bourgoin, B. El Jani	<i>Semicond. Sci. technol. 18 (2003) 445</i>
96	<i>A new photoluminescence lines in vanadium doped GaAs grown by OMVPE</i>	A Bechetnia, A Rebey , J. Cernagora, J. L. Fave, B. El Jani	<i>Microelectronics Journal, 34 (2003) 271</i>
97	<i>Influence of metal properties and</i>	C. Touzi, A. Rebey , B.	<i>Microelectronics</i>

	<i>photodiode parameters on the spectral reponse of n-GaN Schottky diode,</i>	El Jani	<i>Journal, 33 (11) (2002) 961</i>
98	<i>Annealing Effect on GaN buffer layer surface</i>	I. Halidou, T. Boufaden, A. Touhami, A. Rebey , B. El Jani	<i>Phys. Stat. Sol. (a) 184 (2001) 263</i>
99	<i>Etude morphologique de la surface de GaAs décapé in-situ par CCl₄ et VCl₄</i>	A. Bchetnia, A. Rebey , I. Moussa, B. El Jani	<i>Phys. Chem. News 1 (2001) 27</i>
100	<i>Characterization of GaN layers grown on porous silicon</i>	A. Missaoui, M. Saadoun, T. Boufaden, B. Bessaïs, A. Rebey , H. Ezzaouia, B. El Jani	<i>Materials Science and Engineering B2 (1-3), p98 (2001)</i>
101	<i>Growth of GaN films on porous silicon by MOVPE</i>	A. Missaoui, M. Saadoun, H. Ezzaouia, B. Bessaïs, T. Boufaden, A. Rebey , B. El Jani	<i>Physica Status Solidi (a) 182 (2000) 189</i>
102	<i>Statistical analysis in the negative-U model of donors in Al_xGa_{1-x}As</i>	F. Rezigua-ouaja, H. Mejri, A. Triki, A. Selmi, A. Rebey	<i>J. Appl. Phys. 88 (2000) 2583</i>
103	<i>The GaN growth by a hot filament metalorganic vapor phase deposition technique</i>	T. Boufaden, A. Rebey , I. Halidou, Z. Chine, B. El Jani	<i>Phys. Stat. Sol (a).176 (1999) 411</i>
104	<i>In situ optical monitoring of metalorganic vapor phase epitaxy growth of C-doped GaAs</i>	A. Rebey , B. El Jani, A. Leycuras, S. Laugt, P. Gibart	<i>Appl. Phys.A 68(1999) 1</i>
105	<i>Hot filament assisted metalorganic vapor phase deposition of GaN</i>	T. Boufaden, A. Rebey , B. El Jani	<i>J. Cryst. Growth 206 (1999) 1</i>
106	<i>Thermodynamic analysis of growth rate reduction by VCl₄ during metalorganic vapor phase epitaxy</i>	A. Bchetnia, A. Rebey , T. Boufaden, B. El Jani	<i>J. Cryst Growth 207 (1999) 15</i>
107	<i>In situ optical monitoring of the decomposition of GaN thin films</i>	A. Rebey , T. Boufaden, B. El Jani	<i>J. Cryst. Growth 203(1999) 12</i>
108	<i>Etching of GaAs by CCl₄ and VCl₄ in a metalorganic vapor phase reactor</i>	A. Rebey , A. Bchetnia, B. El Jani	<i>J. Cryst. Growth 194(1998)286</i>
109	<i>Optical monitoring of the growth rate reduction by CCl₄ during metalorganic vapor phase epitaxy deposition</i>	A. Rebey , L. Beji, B. El Jani, P. Gibart	<i>J. Cryst. Growth 191(1998) 734</i>
110	<i>Etude et analyse de l'effet de CCl₄ sur le GaAs en EPVOM</i>	A. Bchetnia, A. Rebey , T. Boufaden, I. Moussa, B. El Jani	<i>Leb. Sc. Res. Rep.3, 4, (1998) 24</i>
111	<i>Incorporation modes of silicon in GaAs:Si grown by metalorganic vapor phase epitaxy</i>	L. Beji, A. Rebey , B. El Jani	<i>The European Phys. J. Appl. Phys. 4(1998)269</i>
112	<i>New vanadium dopant precursor (VCl₄) for GaAs grown by metalorganic vapor phase epitaxy</i>	A. Rebey , A. Bchetnia, B. El Jani, Ch. Benjeddou	<i>J. Cryst. Growth 194(1998) 292</i>

Chapter Books:

	Title	Authors	Scientific reference
1	High Resolution X-Ray Diffraction of III-V semiconductors thin films	M. M. Habchi, H. Fitouri, A. Rebey	InTech - open science (2017)
2	Atmospheric Pressure Metalorganic Vapor Phase Epitaxy of GaAsBi alloy on GaAs substrate	H. Fitouri, A. Rebey	Springer (2013)

Talks/Presentations

Several participations (**more than 100**) in scientific events

University Habilitation supervisor

Supervisor	Title of Thesis	Student	Degree of Doctor date
A. Rebey	Etude ab-initio des propriétés structurales, électroniques et optiques des composés III-V-Bi	M. Mbarki	2013
A. Rebey	Les arséniures-III et leurs alliages dilués bismuth : du massif aux nanostructures	H. Fitouri	2016
A. Rebey	Contribution à l'étude de la croissance et des propriétés physiques et électroniques des systèmes à base d'InGaNaSb	M. M. Habchi	2016

PhD Thesis supervisor

Supervisor	Title of Thesis	Student	Degree of Doctor date
A. Rebey	Etude des propriétés physiques des alliages III-V-N-Bi	C. Khoubeib	2017
A. Rebey	Etude des propriétés électroniques des puits quantiques dopé p à base de GaNaSb	I. Guizani	2017
A. Rebey	Thermodynamique de croissance des alliages III-V-Bi	E. Nasr	2017
A. Rebey	Etude des propriétés physiques des structures quantiques dopées n à base de GaNaSb	C. Bilel	2016

A. Rebey	Etude théorique des propriétés des hétérostructures à base de GaNAsBi/GaAs pour applications en optoélectronique	R. Alaya	2016
A. Rebey	Etude ab-initio des propriétés physiques des alliages III-V à base de bismuth (III-V-Bi)	A. Ben Nasr	2016
A. Rebey	Etude des propriétés physiques des alliages InGaAs/GaAs élaborées par EPVOM	T. Mzoughi	2015
A. Rebey	Caractérisation par photoreflectance de GaAsBiépitaxié par EPVOM sur des substrats à hauts indices de Miller	I. Zaied	2014
A. Rebey	Etude in situ par réflectivité multi-longueur d'onde de l'épitaxie en phase vapeur par pyrolyse des organométalliques des semiconducteurs III-V	I. Massoudi	2013
B. El Jani and A. Rebey	Etude des propriétés optiques, morphologiques et structurales des hétérostructures InGaAs/GaAs élaborées par EPVOM	M. M. Habchi	2009
B. El Jani and A. Rebey	Elaboration et étude des propriétés physiques des alliages GaAsBi sur substrat GaAs par épitaxie en phase vapeur par pyrolyse des organométalliques	H. Fitouri	2009
B. El Jani and A. Rebey	EPVOM des alliages InGaAs sur substrat GaAs à hauts indices de Miller	H. Ben Naceur	2010

Master thesis supervisor

Supervisor	Title of Master	Student	Degree of Master date
A. Rebey	Band structure calculation using Band Anti-Crossing model	Afnan Al Aquil	2021
A. Rebey	Optical properties of $\text{In}_x\text{Ga}_{1-x}\text{As}$ alloys investigated by ellipsometry	Ibrahim Al Hussein	2021
A. Rebey	Structural Characterization of InGaAs thin films by X-Ray diffraction	Mai Al Mhimid	2021
A. Rebey	Study of GaAsBi / GaAs (111) By Modulation Spectroscopy of Reflectance	Hussein Al thubaini	2021
A. Rebey	Elaboration des alliages AlGaAs par EPVOM en vue de la réalisation des miroirs de Bragg	M. M. Habchi	2002
A. Rebey	Contribution à l'étude de la contraction du paramètre de maille du GaAs fortement dopé carbone	W. Fathallah	2003
A. Rebey	Etude structurale des contraintes dans	H. Ben	2005

	des couches monocristallines InGaAsépitaxiées par EPVOM	Naceur	
A. Rebey	Mise au point d'un montage de réflectivité multi-longueur d'ondes pour le contrôle in situ de l'épitaxie en phase vapeur par pyrolyse des organométalliques	I. Messoudi	2008
A. Rebey	Epitaxie en phase vapeur par pyrolyses des organométalliques des alliages GaAsBi sur des substrats à hauts indices de Miller	N. El Arbi	2009
A. Rebey	Initiation au calcul des structures de bandes des semiconducteurs à l'aide de la méthode k.p : Application au GaAs	Y. Essouda	2010
A. Rebey	Etude de l'effet de la température de croissance sur les hétérostructures GaAsBi/GaAs	C. Koubeib	2013
I. Moussa and A. Rebey	Analyse structurale par diffraction des rayons X à haute résolution d'InGaAs désorienté	T. Mzoughi	2009
Z. Chine and A. Rebey	Photoreflectance de l'arséniure de gallium	I. Zaied	2009
M. Mbarki	Etude des propriétés structurales et électroniques des alliages GaAsBi	A. Taiiri	2010
M. M. Habchi and A. Rebey	Calcul de structures de bandes des alliages quaternaires GaAsNBi par application du modèle d'anticroisement de bandes	A. Ben Nasr	2010
I. Moussa and A. Rebey	Etude de l'effet du recuit thermique sur les propriétés physiques des couches minces élaborées sur substrat GaAs	M. Bedoui	2010
H. Fitouri and A. Rebey	Etude de l'effet du recuit thermique sur les propriétés physiques des dépôts de bismuth à la surface des substrats GaAs	R. Boussaha	2010
M. Mbarki and A. Rebey	Etude ab-initio des propriétés structurales électroniques des alliages GaAsN	R. Alaya	2010
H. Fitouri and A. Rebey	Rôle de la phase dans l'analyse d'un spectre de photoreflectance	M. Bedoui	2014

Administrative Positions:

- * **2011-2017:** Head of Physics Department of Faculty of Sciences of Monastir, Monastir University Tunisia.
- * **2015-2018:** Head of Unit of research in Physics Department of Faculty of Sciences of Monastir, Monastir University Tunisia.
- ***2011-2017:** Board member of the Committee on master and theses in Physics Department of Faculty of Sciences of Monastir, Monastir University Tunisia.

- * **2011-2017:** Chairman of the Mandate Committee for Contract Professors.
- * **2007-2009:** Secretary General of the Tunisian Association Of physics.
- * **2013:** Former of laboratory technicians in physics field. Monastir University Tunisia.
- * **2010:** Chairman of research project “In situ monitoring of MOVPEby multi wavelength reflectometry” Third world academy of sciences (TWAS).
- * **2014:** Member of research project « EPVOM de l’alliage GaAsBi : croissance, caractérisation et modélisation » INSA-Bat Blaise Pascal, 7 Av J. Cappelle, 69621 villeurbanne CEDEX.

Skills and Knowledge

- Language: Arabic, French and English oral and written
- Use of programming languages: Maple, Pascal, Matlab
- Use of automation and computer control via RS232, IEEE and PCAII card