

Ministère de l'enseignement supérieur et de la recherche scientifique

Etablissement Universitaire: 08 mai 1945 de Guelma

Faculté:MISM

Laboratoire:Physique Des Matériaux (L2PM)

| Productions Scientifiques2022 | | | | | | | | |
|--------------------------------|---|--|---|-------|--|--------|---------------|---|
| Publications | | | | | | | | |
| | Titre | Auteurs | Revue | Année | Catégorie de la revue:A+ , A , B-Scopus, B-non Scopus, non classée | Volume | Page | URL |
| Publications nationales | | | | 2022 | | | | |
| | Tuning the magnetic properties of FeTe2 monolayer doped by (TM: V, Mn, and Co) | Hosayn Chibani Hakima Yahi Chaouki Ouettar | Journal of Magnetism and Magnetic Materials | 2022 | A | 552 | 169204-169208 | https://doi.org/10.1016/j.jmmm.2022.169163 |
| | Tuning the magnetic and electronic properties of MoI3 monolayer by 3d transition metal doping: A first-principles study | Chaouki Ouettar Hakima Yahi Hosayn Chibani | Journal of Magnetism and Magnetic Materials | 2022 | A | 551 | 169163-169173 | https://doi.org/10.1016/j.jmmm.2022.169163 |

**Publications
internationales**

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|---|--|--|------|----------|------------|-------------------|---|
| Revealing structural, mechanical, and electronic properties of M ₄ C ₃ (M = Sc, Ti, Zr, Mo, Hf, and W) MXene monolayers based on first-principle calculations | Hosayn Chibani Hakima Yahi Nafeesa Arshad Chaouki Ouettar | Computational Condensed Matter | 2022 | B-Scopus | 32 | e00713- e00720 | https://doi.org/10.1016/j.cocom.2022.e00713 |
| Ab Initio Study on Structural, Elastic, and Thermodynamic Properties of Manganese Chalcogenides MnX (X= S and Se) in NaCl Phase under Pressure | R Ksouri, R Maizi, I Djaghout, A-G Boudjahem, M Dardare | Russian Journal of Inorganic Chemistry | 2022 | A | 193-200 | 67 n° 2 | https://link.springer.com/content/pdf/10.1134/S0036023622020139.pdf |
| Silver impurities effects on CeO ₂ structural, electronic, | Aicha Bouhlala, Wissam Tayeb Halayes, Malika Doghmane, and Sabah Chettibi | THE EUROPEAN PHYSICAL JOURNAL B | 2022 | A | 95 | 174 | https://doi.org/10.1140/epjb/s10051-022-00437-3 |
| Structural, Elastic, Electronic, and Thermodynamic Properties of A ₂ TiCl ₆ (A = Li, Na and Rb) Compounds: DFT Investigation | Ilhem Djaghout, Rafik Maizi, Rabah Ksouri, Abdel Ghani Boudjahem, Meryem Dardare | Russian Journal of Inorganic Chemistry | 2022 | A | 67 Suppl 1 | S42-S51 | https://link.springer.com/content/pdf/10.1134/S0036023622601325.pdf |
| Study of Structural, Elastic and Thermodynamic Properties of Metal Carbides MC (M= Ir, Rh and Ru) Using First-Principles Calculations | R Ksouri, R Maizi, A-G Boudjahem, I Djaghout, M Dardare, R Mercedes | Physics of Metals and Metallography | 2022 | A | | 1 11 | https://link.springer.com/content/pdf/10.1134/S0031918X21101129.pdf |

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|--|---|--|------|---|----------|-------------|---|
| First-principles computational study on structural, elastic, magnetic, electronic, and thermoelectric properties of Co ₂ MnGe: a potential Heusler ternary compound | R Amraoui, S Kadri, H Meradji, M Berkani, A Bouaricha, S Ghemid, A Boumaza, Muhammad Anjum Javed, R Ahmed | The European Physical Journal B | 2022 | B | 95 N° 12 | 198 | https://link.springer.com/content/pdf/10.1140/epjb/s10051-022-00466-y.pdf |
| Structural, Elastic Stability, Electronic, and Magnetic Properties of the Quaternary Heusler Alloy CoMnVSi: An Ab Initio Study | Malika Doghmane, Rabie Amraoui, Sabah Chettibi, Debra F Laefer | Russian Journal of Physical Chemistry A | 2022 | A | 96 n° 10 | 2166-2172 | https://link.springer.com/content/pdf/10.1134/S0036024422100077.pdf |
| Study of Structural, Elastic, Thermal and Transport Properties of Ternary X(X=Co, Rh and Ir)MnAs Obtained by DFT | Salim Kadria, Tourab Mohamed, Berkani Mahièddinec, Amraoui Rabie, Bordjiba Zeyneb | East European Journal of Physics | 2022 | B | 1 | 47-57 | <u>DOI:</u> 10.26565/2312-4334-2022-1-07 |
| Confocal magnetron sputtering deposition of Cu/AZO bilayer structures | N.E.A. Doghmane, S. Chettibi, F. Challali, A. Chelouche & T. Touam | Journal of Materials Science: Materials in Electronics | 2022 | A | 33 | 26717-26727 | https://doi.org/10.1007/s10854-022-09338-8 |

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|--|--|--|--|------|---|---------|---------|---|
| | Structural, Mechanical and Thermodynamic properties of Manganese Monocarbide (MnC) in ZnS phase under High Pressure: a DFT Study | Ilhem Djaghout, Rabah Ksouri, Rafik Maizi, Abdel Ghani Boudjahem, Meryem Dardare | Asian Journal of Research in Chemistry | 2022 | A | 15 n° 6 | 422-428 | https://www.proquest.com/openview/21f67d3ec1f4a627478b89c10043a3c2/1?pq-origsite=gscholar&cbl=1096446 |
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Productions Scientifiques 2022

Communications

| | Titre | Auteurs | Intitulé de manifestation | Année | Proceeding de la conférence indexé dans Scopus (oui /non) | Volume | Page | URL |
|----------------------------------|--|-----------------------------|---|-------|---|--------|------|-----|
| Communications nationales | First-principles investigations of structural, electronic and elastic properties of CrN4 monolayer | Hosayn Chibani, Yahi Hakima | The first national online conference On materials physics /9 June 2022 ELTARF-ALGERIA | 2022 | non | | | |

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|--|--|--|------|-----|--|--|--|
| First-principles investigations of structural, electronic and elastic properties of FeN ₄ monolayer | Hosayn Chibani, Yahi Hakima | Première rencontre sur la modélisation et la simulation numériques en physique des matériaux /13 December Sidi Bel Abbès Algeria | 2022 | non | | | |
| First-principles investigations of structural, electronic and elastic properties of VN ₄ monolayer | Hosayn Chibani, Yahi Hakima | First National Conference on Science & Technology (1st NCST22) /27-28 June, Mascara, Algeria | 2022 | non | | | |
| First-principles investigations of structural, electronic and elastic properties of MoN ₄ monolayer | Hosayn Chibani, Yahi Hakima | Scientific day on chemistry, materials and environment /2 December 2022 Univeristy center of Tipaza | 2022 | non | | | |
| 1st National Conference on Materials Sciences and Engineering | Warda Elaggoune, Athmane Meddour, Chahrazed Bourouis | The impact of nitrogen doping on the magneto-electronic and optical properties of strontium sulfide | | | | | |

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|---------------------------------------|--|---------------------------------|---|------|-----|--|--|--|
| | Tuned electronic and magnetic properties in 3d transition metal doped FeI3 monolayer: a first-principles study | Chaouki Ouettar, Hakima Yahi | The first national online conference on materials physics | 2022 | non | | | |
| | Tuned electronic and magnetic properties in 3d transition metal doped MoI3 monolayer: a first-principles study | Chaouki Ouettar, Hakima Yahi | 1st National Conference on Materials Sciences and Engineering | 2022 | non | | | |
| | Doping and co-Doping Impact on the Structural, Electronic and Magnetic properties of CeO2 : based on first principle calculation | BENMALEK Aida CHETTIBI Sabah | National Conference on Material Physics and Fluids (CPMF-2022) In the prestigious city of Oran (Algeria) | 2022 | non | | | |
| Communications internationales | Electronic and magnetic properties of TMdoped CeO2 compound through density functional theory calculations | Bouhlala Aicha | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS 2022 in Konya, Turkey | 2022 | non | | | |

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|---|-------------|---|------|-----|--|--|---|
| First-principle investigation of structural, electronic, and elastic properties of WN4 monolayer | YAHI Hakima | 1st International Conference on Scientific and Academic Research ICSAR'2022 December 10 - 13, 2022 in Konya, Turkey | 2022 | non | | | https://www.icsarconf.com/ |
| First principle investigation of structural, electronic, and elastic properties of NiN4 monolayer | YAHI Hakima | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS2022 December 20 - 23, 2022 in Konya, Turkey. | 2022 | non | | | https://www.icensos.com/ |
| Structural and electronic properties of Ti4C3 monolayer a First principle study | YAHI Hakima | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS2022 December 20 - 23, 2022 in Konya, Turkey. | 2022 | non | | | https://www.icensos.com/ |

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|--|----------------|---|------|-----|--|--|---|
| First-principle investigation of structural, electronic, and elastic properties of WN4 monolayer | YAH I Hakima | 1st International Conference on Scientific and Academic Research ICSAR'2022 December 10 - 13, 2022 in Konya, Turkey | 2022 | non | | | https://www.icensos.com/ |
| Effect of Rare Earth (Tm) on Electronic and Magnetic Properties of Doped CeO2 by DFT Study | Bouhlala Aicha | 1st International Conference on Scientific and Academic Research 2022 it Konya/Turkey. | 2021 | non | | | |
| Insight into structural and magnetoelectronic properties of Ce _{1-x} Ag _x O ₂ (x=12.5%) : A density functional theory study | Bouhlala Aicha | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS 2022 in Konya, Turkey | 2022 | non | | | |
| Investigation of the optoelectronic properties of CeAgO ₂ system using firstprinciples calculations | Bouhlala Aicha | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS 2022 in Konya, Turkey | 2022 | non | | | |

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|---|--|--|-------------|------------|--|--|--|
| <p>New ferromagnetic half-metallic perovskite TiMgO₃ for spintronic application</p> | <p>Boualleg Cheyma , Meddour Athmane</p> | <p>3rd International Conference on Applied Engineering and Natural Sciences on 20-23 July in 2022 at Konya/Turkey.</p> | <p>2022</p> | <p>non</p> | | | |
| <p>AN INVESTIGATION OF STRUCTURAL, ELECTRONIC AND MAGNETIC PROPERTIES OF FERROMAGNETIC HALF-METALLIC NANIO₃ USING LSDA+U</p> | <p>Cheyma Boualleg , Athmane Meddour , Esma semassel</p> | <p>THE 1ST INTERNATIONAL CONFERENCE ON RENEWABLE MATERIALS AND ENERGIES ICRME2022 October 26-27, 2022, OUARGLA-ALGERIA</p> | <p>2022</p> | <p>non</p> | | | |
| <p>FIRST THEORETICAL STUDY OF THE ELECTRONIC AND MAGNETIC PROPERTIES OF Mg_{0.75}Co_{0.25}S</p> | <p>Esma semassel , Athmane Meddour , Cheyma Boualleg</p> | <p>THE 1ST INTERNATIONAL CONFERENCE ON RENEWABLE MATERIALS AND ENERGIES ICRME2022 October 26-27, 2022, OUARGLA-ALGERIA</p> | <p>2022</p> | <p>non</p> | | | |

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|--|---|--|------|-----|--|--|--|
| Structural, electronic, magnetic and elastic properties of perovskite type oxides PuNiO_3 | Cheyma Boualleg , Athmane Meddour | 4th International Conference on Applied Engineering and Natural Sciences on 10-13 November in 2022 at Konya/Turkey. | 2022 | non | | | |
| New Half-Metal Perovskite AcNiO_3 for Spintronic Applications | Cheyma Boualleg , Athmane Meddour , Esma semassel | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS 2022 on December 20 - 23, 2022 in Konya, Turkey | 2022 | non | | | |
| Investigation of Structural, Electrical and optical properties of $\text{Mg}_{1-x}\text{Mn}_x\text{S}$ | Esma Semassel, Athmane Meddour | The 4th International Conference on Electromechanical Engineering (ICEE2022) on December 13-14, 2022 at the university of Skikda, Algeria. | 2022 | non | | | |

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|--|---|--|------|-----|--|--|--|
| Study of structural, electronic and magnetic properties of MgTM _{0.25} S (TM= Sc, Nb). | Esma Semassel*, Athmane Meddour 2 and Hadjer Frioui | 3rd International Conference on Applied Engineering and Natural Sciences on 20-23 July in 2022 at Konya/Turkey. | | non | | | |
| Theoretical Investigation of the Structural, Mechanical, Electronic, and Magnetic Properties of new Quaternary Heusler Compound VScRhGe. | Esma Semassel*, Athmane Meddour 2 and Hadjer Frioui | 3rd International Conference on Applied Engineering and Natural Sciences on 20-23 July in 2022 at Konya/Turkey. | 2022 | non | | | |
| Structural electronic and magnetic studies of perovskite PaNiO ₃ by first principle DFT_GGA+U calculation | Esma Semassel, Athmane Meddour , Cheyma Boualleg | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS 2022 on December 20 - 23, 2022 in Konya, Turkey | 2022 | non | | | |
| Comparative investigation of Mg _{0.75} Eu _{0.25} S properties by GGA+U and Tb- mbj. | Esma Semassel, Athmane Meddour , Cheyma Boualleg | 1st International Conference on Engineering, Natural and Social Sciences ICENSOS 2022 on December 20 - 23, 2022 in Konya, Turkey | 2022 | non | | | |

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|--|--------------------------------------|---|------|-----|--|--|--|
| PHASE STABILITY, MAGNETIC, ELECTRONIC, HALF-METALLIC AND MECHANICAL PROPERTIES OF A NEW EQUIATOMIC QUATERNARY HEUSLER COMPOUND VSCRHSN: A FIRST-PRINCIPLES INVESTIGATION | Hadjer Frioui, MEDDOUR Athmane | THE 1ST INTERNATIONAL CONFERENCE ON RENEWABLE MATERIALS AND ENERGIES ICRME2022 October 26-27, 2022, OUARGLA-ALGERIA | 2022 | non | | | |
| First principles study of structural, electronic and magnetic properties of new Equiatomic Quaternary Heusler Alloy VTiRhP. | Hadjer Frioui, MEDDOUR Athmane | 1st International Conference on Scientific and Academic Research on 10-13 December in 2022 at Konya/Turkey, | 2022 | non | | | |
| Investigation of the structural, electronic, magnetic, and elastic properties of Co ₂ FeBe Heusler compound: A DFT-based simulation | Hadjer Frioui | 1st International Conference on Applied Chemistry and Renewable Energies (ACREIC 2022, 26th-28th NOV 2022) | 2022 | non | | | |
| First-principles investigations of structural, electronic and elastic properties of WN ₄ monolayer | Hosayn Chibani, Yahi Hakima | 1st International Conference on Scientific and Academic Research/ 10-13 December Konya, Turkey | 2022 | non | | | |

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|--|--|--|------|-----|--|--|--|
| First-principles investigations of structural, electronic and elastic properties of NiN4 monolayer | Hosayn Chibani, Yahi Hakima | 1st International Conference on Engineering, Natural and Social Sciences/ 20-23 December Konya, Turkey | 2022 | non | | | |
| First-principles investigations of structural, electronic and elastic properties of CoN4 monolayer | Hosayn Chibani, Yahi Hakima | 4th International Conference on Applied Engineering and Natural Sciences/ 10-13 Novmber, Konya, Turkey | 2022 | non | | | |
| 1 st international conference on chemical matters and environment preservation , Ouargla, Algeria | Warda Elaggoune, Athmane Meddour, Chahrazed Bourouis | An Investigation of Optoelectronic Properties of the Semiconductor SrS: B | 2022 | non | | | |
| Algerian American Foundation Summer University 2022 | Warda Elaggoune | The Renewable Energies program | 2022 | non | | | |
| Tuning the Electronic and Magnetic Properties of TM (TM = Sc and Ti) Doped FeI3 Monolayer | Chaouki Ouettar, Hakima Yahi | 1st international conference on chemical matters and environment preservation | 2022 | non | | | |

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|--|---|--|------|-----|--|--|--|
| An Ab-initio investigation of structural, electronic, and optical properties of Co doped TiO ₂ for photocatalytic application | N.E.A. Doghmane, W. Tayed Halais, M. Doghmane, T. Touam & S. Chettibi | ICESD-2022: International Congress of Engineering & Sustainable Development. December 27 -> 29 2022 - Monastir, Tunisia | 2022 | non | | | |
| Computational study of doped MgO with 4d transition metal for spintronic devices | N.E.A. Doghmane, M. Doghmane, & S. Chettibi | ICESD-2022: International Congress of Engineering & Sustainable Development. December 27 -> 29 2022 - Monastir, Tunisia | 2022 | non | | | |
| Comparative study of structural, electronic and optical properties of TiO ₂ polymorphs | M. Doghmane, N.E.A. Doghmane, R. Amraoui & S. Chettibi | Inno-MSD: 1st International Conference on Innovative Materials for Sustainable Development. December 13 -> 15 2022 - Annaba, Algeria | 2022 | non | | | |

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|--|---|---|------|-----|--|--|--|
| Preparation and characterization of copper/aluminum doped zinc oxide bi-layers for photovoltaic applications | W. Tayed Halais, N.E.A. Doghmane, O. Hassayoun & S. Chettibi, | EMS2022: International Conference on Energy and Materials Sciences. November 16 -> 17 2022- Skikda, Algeria | 2022 | non | | | |
| Accurate evaluation of zinc oxide physical properties for energy applications | N.E.A. Doghmane, W. Tayed Halais, M. Doghmane, T. Touam & S. Chettibi | " ICESD-2022: International Congress of Engineering & Sustainable Development. December 27 -> 29 2022 - Monastir, Tunisia | 2022 | non | | | |
| Investigation of rutile titanium dioxide structural, electronic and optical properties | N.E.A. Doghmane, M. Doghmane, & S. Chettibi | ICESD-2022: International Congress of Engineering & Sustainable Development. December 27 -> 29 2022 - Monastir, Tunisia | 2022 | non | | | |

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|--|--|--|------|-----|--|--|--|
| DFT analysis of the titanium substitution effect on the half-metallic ferromagnetic properties of MgO alloys for spintronic applications | BENMALEK Aida DOUGHMANE Malika CHETTIBI Sabah | the 1st INTERNATIONAL CONFERENCE ON APPLIED CHEMISTRY AND RENEWABLE ENERGIES ALGERIA- 2022 | 2022 | non | | | |
| Oxygen Vacancy Generation and Stabilization in ceria doped by Zn on the fundamental properties: An ab-initio DFT study | BENMALEK Aida DOUGHMANE Malika CHETTIBI Sabah | 1st International Conference on Scientific and Academic Research Konya/Turkey | 2022 | non | | | |
| Structural and electronic of TiC3 monolayer a First-principles study | Hosayn Chibani, Yahi Hakima | 1st International Conference on Engineering, Natural and Social Sciences/ 20-23 December Konya, Turkey | 2022 | non | | | |

Visas et Signature du Directeur de Laboratoire

Visas et Signature du Doyen