

Curriculum Vitae

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Educational Profile:

- Doctorat LMD/PhD in Mechanical Energetics, University of Batna 2, Algeria
- Master in Mechanical Energetics, University of Batna 2, Algeria
- License in Mechanical Energetics, University of Batna 2, Algeria

Scientific Activities & Membership of Scientific Societies

- Reviewer to [International Journal of Thermodynamics](#), ISSN: 1301-9724.

List of Journal Publications

1. **Y.MAALEM**, Y.TAMENE, H.MADANI, 2023, [Performances Investigation of the Eco-friendly Refrigerant R1311 used as Working Fluid in the Ejector-Expansion Refrigeration Cycle](#). International Journal of Thermodynamics Vol. 26 (No.3), 025-035, ISSN: 1301-9724.
2. A.ZERFA, **Y.MAALEM**, H.MADANI, A.Beicha, 2023, [Modelling of the isothermal vapor-liquid equilibrium of alternative refrigerants: Determination of phase diagrams \(high-pressure/low-pressure\) and optimized binary interaction parameters](#). Journal of Pakistan Institute of Chemical Engineers Vol. 51 (No.1), 39-58, ISSN: 1813-4092.
3. **Y.MAALEM**, Y.TAMENE, H.MADANI, 2023, [Modeling of the Vapor-Liquid Equilibria Properties of the Binary Mixtures for Refrigeration Machinery](#). International Journal of Thermodynamics Vol. 26 (No.2), 022-033, ISSN: 1301-9724.
4. **Y.MAALEM**, H.MADANI, M. MEHEMMAI, 2023, [Modélisation Mathématique et Simulation Numérique des Performances de Refroidissement de Différentes Unités de Réfrigération à Compression de Vapeur : Application de Nouveaux Fluides Frigorigènes](#). Revue des sciences et sciences de l'ingénieur Vol. 9 (No.1), 21-39, ISSN: 2170-0737.
5. **Y.MAALEM**, A.ZERFA, M.MEHEMMAI, H.MADANI, S.FEDALI, 2022, [Study of the performance of a refrigeration cycle without and with ejector using ternary azeotropic refrigerants](#). Journal of New Technology and Materials Vol. 12 (No.1), 25-31, ISSN: 2170-161X.
6. **Y.MAALEM**, Y.TAMENE, H.MADANI, 2022, [Behavior of the Thermo-physical Properties and Performance Evaluation of the Refrigerants Blends of \(Fluorocarbon/Hydrocarbon\) for Cooling Cycle](#). Recueil de Mécanique Vol. 6 (No.1), 544-559, ISSN: 2507-7589.

7. **Y.MAALEM**, A.ZERFA, Y.TAMENE, S.FEDALI, H.MADANI, 2020, [Prediction of thermodynamic properties of the ternary azeotropic mixtures](#). Fluid Phase Equilibria Vol. 517, 112613, ISSN: 03783812.
8. **Y.MAALEM**, Y.TAMENE, S.FEDALI, H.MADANI, 2020, [Performance analysis of ternary azeotropic mixtures in different vapor compression refrigeration cycles](#). International Journal of Refrigeration Vol. 119, 139-151, ISSN: 01407007.

List of Conference Papers

1. **Y.MAALEM**, H.MADANI, 2023, [Environmental Investigation of Global Warming Potential of Binary Refrigerant Systems \(R134a+R600a, R134a+R290, R1234yf+R290 and R1234ze\(E\)+R600a\) as a Substitute Refrigerant to R134a: Environmental Analysis and Comparison](#), 2^{ème} Séminaire National Environnement & Gestion Durable (2^{ème} SNEGD'23), Publisher: University of Relizane.
2. **Y.MAALEM**, H.MADANI, 2023, [COOLING PERFORMANCE INVESTIGATION OF PURE LOW-GWP REFRIGERANTS AS SUBSTITUTES FOR THE PHASE-OUT R134A \(1,1,1,2-TETRAFLUOROETHANE\) IN COOLING SYSTEM : SEARCH FOR AN ADEQUATE REFRIGERANT](#), 2nd National Conference on Mechanics and Materials (CNMM2023), Publisher: University of Boumerdes.
3. **Y.MAALEM**, M.MEHEMMAI, H.MADANI, 2023, [Évaluation des propriétés environnementales \(PRG & PAO\) des systèmes azéotropes ternaires en tant que frigorigènes de remplacement pour le puissant gaz à effet de serre R134a : Analyse et comparaison](#), Le 1^{er} Séminaire National sur les Matériaux pour l'Environnement et le Développement Durable (MEDD), Publisher : University of Relizane.
4. **Y.MAALEM**, H.MADANI, Y.TAMENE, M.MEHEMMAI, 2022, [Modélisation Thermodynamique des Equilibres de Phases à Haute Pression des Mélanges des Fluides Frigorifiques : Etude des Points Critiques](#), The first National Seminar on Green Chemistry and Natural Products (GCNP'22), Publisher: University of El-Oued.
5. **Y.MAALEM**, A.ZERFA, H.MADANI, 2022, [Azeotropic Phase Equilibrium Diagrams of New Refrigerant Mixtures: Prediction and Modeling](#), 1st National Conference on Applied Science and Advanced Materials (NCASAM 2021), Publisher: ENSET-Skikda.
6. **Y.MAALEM**, M.MEHEMMAI, 2022, [Performance Investigation of Ternary Zeotropic Blend R32/R125/R161 as a Substitute Refrigerant to R407C in Single-stage Vapor Compression Refrigeration Cycle: Performance Analysis and Comparison](#), Congress of Energy and Industrial Process Engineering (CEGPI'22), Publisher: USTHB.
7. **Y.MAALEM**, H.MADANI, Y.TAMENE, 2022, [Comparative Heating Performance Analysis of Heat Pump System Using the Expansion Devices \(Expansion Valve/Two-phase Ejector\): Energy and Economic Investigation](#), 1st National Conference On Science & Technology (1st NCST2022), Publisher: University of Mustapha Stambouli Mascara.
8. **Y.MAALEM**, A.ZERFA, H.MADANI, 2021, [Theoretical energy performance evaluation of ejector-expansion refrigeration system without and with an internal heat exchanger \(IHX\) using ternary azeotropic blends as working fluids](#), 2^{ème} Séminaire international sur les

sciences de la matière (physique et chimie), Publisher: Algerian Journal of Engineering, Architecture and Urbanism (AJEAU).

9. **Y.MAALEM**, A.ZERFA, M. MEHEMMAI, H.MADANI, 2021, [Etude et amélioration des performances d'une machine frigorifique à compression mécanique de vapeur utilisant l'éjecteur de type à pression de mélange constante comme détendeur : Application des réfrigérants hydrofluorooléfines \(HFO\)](#), 1^{er} Conférence Nationale sur la Mécanique et Maintenance (CNMM2021), Publisher: University of Boumerdes.
10. **Y.MAALEM**, A.ZERFA, S.FEDALI, H.MADANI, 2019, [Prediction of azeotropic behavior for binary mixtures using the relative volatility method, activity coefficients and equations of state](#), 1st International Seminar on Green Chemistry and Sustainable Engineering (ISGCSE-2019), Publisher: University of El-Oued.
11. **Y.MAALEM**, S.FEDALI, H.MADANI, 2018, [Propriétés Thermo-Physiques des Réfrigérants à faible Impact Environnemental : Systèmes Binaires et Ternaire](#), The 2nd International Symposium on Mechatronics & Renewable Energies (ISMRE'2018), Publisher: University of El-Oued.