



Publications de l'équipe : Hydrodynamique Navale

1. Aissa Abderrahmane, **Houssem Laidoudi**, Abdeldjalil Belazreg, Obai Younis, Hamoud A, Al- Nehari, Riadh Marzouki, Parametric study of MHD mixed convection heat transfer in a trapezoidal cavity with NEPCM suspension and rotating star-shaped heat source, Results in Physics, Volume 76, September 2025, 108397, <https://doi.org/10.1016/j.rinp.2025.108397>
2. **Houssam Laidoudi**, The effects of geometric shape and power-law index on the thermal activity and dynamic behavior of a complex fluid, " *Emirates Journal for Engineering Research* 2025 Vol. 30: Iss. 1, Article 1.
3. Fadhl, B.M., **Laidoudi, H.**, Aissa, A., Younis, O. and Ahmed, A. Numerical Analysis of MHD-Mixed Convection and Melting of NEPCM in a Porous Triangular Cavity With Rotating Cylinder. Heat Transfer 2025 <https://doi.org/10.1002/htj.70045>
4. Abderrahmane, A., **Laidoudi, H.**, Ali, A.H.I., Belazreg, A., Younis, O. and Marzouki, R., Impacts of Double Rotating Cylinders on the Forced Convection of Nanoencapsulated Phase Change Material. Heat Transfer 2025, 54: 1448-1461. <https://doi.org/10.1002/htj.23234>
5. **Lakahal, Y.** and **Laidoudi, H.**, Unraveling Flow and Thermal Behavior of Non-Newtonian Fluids in Triangular Chambers: A Computational Study. Heat Transfer 2025, 54: 4139-4152. <https://doi.org/10.1002/htj.23404>
6. **Youcef Lakahal, Houssem Laidoudi**, Buoyancy-driven flow and forced flow of complex fluid within a triangular chamber with a rotating body, Acta Mechanica et Automatica, vol.19 no.2 (2025)
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9. Aissa Abderrahmane, **Houssem Laidoudi** , Abdeldjalil Belazreg, Obai Younis, Magneto-convection flow of Nano-encapsulated phase change material (NEPCM) confined within a trapezoidal porous enclosure, International Journal of Thermofluids Volume 24, November 2024, 100828 <https://doi.org/10.1016/j.ijft.2024.100828>
10. Atef Chibani, Slimane Merouani, **Houssem Laidoudi**, Aissa Dehane , Cherif Bougriou, Thermal management and electrical efficiency for concentrator photovoltaic systems using multiple phase change materials, Applied Thermal Engineering Volume 240, 1 March 2024, 122207, <https://doi.org/10.1016/j.applthermaleng.2023.122207>



11. Souad Hassouni, **Houssem Laidoudi**, Oluwole Daniel Makinde, Mohamed Bouzit Boumediene Haddou, A qualitative study of mixing a fluid inside a mechanical mixer with the effect of thermal buoyancy, archives of thermodynamics Vol. 44(2023), No. 1, 105–119 [https://DOI: 10.24425/ather.2023.145879](https://doi.org/10.24425/ather.2023.145879)
12. **Laidoudi, H.**, & Chibani, A. Thermal activity of hot bodies trapped inside a moving chamber with a complex fluid under the influence of MHD and buoyancy forces. Numerical Heat Transfer, Part B: Fundamentals 2023, 85(5), 569–586. <https://doi.org/10.1080/10407790.2023.2252596>
13. Keltoum Herouz, **Houssem Laidoudi**, Abderrahmane Aissa, Abed Mourad, Kamel Guedri, Mowffaq Oreijah, Obai Younis, Analysis of nano-encapsulated phase change material confined in a double lid-driven hexagonal porous chamber with an obstacle under magnetic field, Journal of Energy Storage, 10.1016/j.est.2023.106736, 61, (106736), (2023).
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15. Obai Younis, Aissa Abderrahmane, **Houssem Laidoudi**, Nevzat Akkurt, Bandar M. Fadhl, Kamel Guedri, Buoyancy-driven flow and thermal activity of nano-enhanced phase change material in inversed U-shaped chamber, Journal of Energy Storage, 10.1016/j.est.2023.106705, 61, (106705), (2023).
16. Atef Chibani, Slimane Merouani , **Houssem Laidoudi**, Aissa Dehane, Larbi Bendada, Leila Lamiri, Ghania Mecheri , Cherif Bougriou , Nouredine Gherraf , Numerical simulation and analysis of heat transfer and melting rate of nano-enhanced PCM composite embedded in a concentrator photovoltaic system, Journal of Energy Storage Volume 73, Part D, 20 December 2023, 109247 <https://doi.org/10.1016/j.est.2023.109247>
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18. **Houssem Laidoudi**, Houari Ameer, Complex fluid flow in annular space under the effects of mixed convection and rotating wall of the outer enclosure, Heat Transfer, [Volume 51](#), [Issue 5](#) July 2022 Pages 3741-3767 <https://doi.org/10.1002/htj.22472>
19. **Houssem Laidoudi**, Aissa Abderrahmane, Abdulkafi Mohammed Saeed, Kamel Guedri, Obai Younis, Riadh Marzouki, Jae Dong Chung, and Nehad Ali Shah, Lid-Driven Chamber with 3D Elliptical Obstacle under the Impacts of the Nano-Properties of the Fluid, Lorentz Force, Thermal Buoyancy, and Space Porosity Nanomaterials 2022, 12, 2373. <https://doi.org/10.3390/nano12142373>