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Educational Profile:

- DES (Diplôme d'Etudes Supérieures) en Physique du Solide (Juin 1979, Université de Constantine - Algérie).
- PhD (Philosophical Doctorat) en Physique du Solide (02 Décembre 1983, Université de Kharkov - Ukraine - URSS).

List of Current Research Projects

- Transitions de phases et changements de propriétés dans les matériaux conventionnels et nanométriques

List of Journal Publications

- 1- L. Chetibi, **D. Hamana** and S. Achour, " Metal assisted chemical etching of silicon and solution synthesis of Cu₂O/Si radial nanowire array heterojunctions", Semiconductors (accepted for publication 2023).
- 2 - Loubna Chetibi, **Djamel Hamana**, Slimane Achour, "Graphite coated Cu₂O-Cu₂S nanoparticles for efficient photoelectrochemical water splitting applications", Surface and interface analysis (accepted for publication 2023).
- 3 - L. Chetibi, R. Ouazouaz, **D. Hamana** and S. Achour, " Photoelectrochemical, optical and magnetic properties of Fe₃O₄ nanoparticles", Materials Science and Engineering Technology (accepted for publication 2023).
- 4 - Imad Messai , **Djamel Hamana**, Zehira Belamri, Volodymyr Chernenko, Effect of Cr addition and heat treatment on the properties of Fe-Al melt-spun ribbons, Metallurgical Research & Technology (accepted for publication 2022).
- 5- A. Zine, **D. Hamana**, N. Kebaili, L. Chetibi, S. Achour, " Polymorphs Fe hydroxides nanostructures growth via green route: Effect of Olive Leaves Extract surfactant", Journal of Crystal Growth (accepted for publication 2022).
- 6 - Y. Hamiene, A. Hayoune, **D. Hamana**, L. Hennet, "Microstructural evolution during continuous heating of multilayered Al/Fe metallic composite elaborated by accumulative roll bonding", Materials Science Engineering and Performance (accepted for publication 2022)

7. B. Laouar, **D. Hamana**, A. Hayoune, "Effect of thermomechanical treatment on the hardening of Al6060 Alloy", *Materials Science and Technology* 1-12 (2022).
8. Loubna Chetibi, Mohamed Oussama Bounab, Aymen Benmkideche, **Djamel Hamana**, Slimane Achour, Realization and characterization of flexible supercapacitors based on doped graphene electrodes, *Solid State of electrochemistry* 26 (11), 2457-2467 (2022).
9. Loubna Chetibi, **Djamel Hamana**, Miguel Manso Silvan, Slimane Achour, Electrochemical synthesis and characterization of graphite nanoparticles, *Applied Physics A* (2022) 128:578 <https://doi.org/10.1007/s00339-022-05731-6>
10. Djahida Boudouh, Rabia Ikram, Badrul Mohamed Jan, Hendrik Simon Cornelis Metselaar, Djamel Hamana, George Kenanakis, Synthesis, characterization and filtration properties of ecofriendly olive leaves derived Fe₃O₄ nanoparticles temperature green route synthesis of Fe₃O₄-C nanocomposite using Olive Leaves Extract, *Materials* (2021) accepted for publication.
11. D. Boudouh, D. Hamana, H. Simon, C. Metselaar, S. Achour, L. Chetibi, R. Akhiani, Low temperature green route synthesis of Fe₃O₄-C nanocomposite using Olive Leaves Extract,
12. L. Amieur, D. Hamana, L. Chetibi, Characterization of the microstructural evolution of Au-35wt. Ag-15wt. Cu alloy during aging 146, pages *Jour. Ther. Analys. Calor.* 2343–2351 (2021) *Materials Sciences and Engineering B*, V 271, p. (2021)
13. Mohamed Hachouf, Djamel Hamana, Effect of Bi addition on precipitation and dissolution in Cu-9 at. % In and Cu_ 5 at. % Sb alloys, *Journal of thermal analysis and calorimetry.* 139, 1, 75 (2020).
14. Souad Kendouli, Slimane Achour, Nadjah Sobti, Loubna Chetibi and Djamel Hamana , Efficient and Durable Semigraphitized Carbon Catalyst for Hydrogen Evolution in Alkaline Electrolyte, *Materials Science Engineering and Performance* v. 29, p. 1974-1983 (2020).
15. Djamel Hamana, Imene Lamiri, Loubna Chetibi, and Slimane Achour, Low temperature formation and characterization of Cu₂O nanoparticles in the binary 18 carat gold alloys, *Surface and Interface Analysis*, V 52, 5 Pages (2019).
16. L. Boumaza, L. Hadjadj, D. Hamana, Z. Belamri, A. Azizi, R. Benmalit, Artificial aging effect on precipitation and age hardening in an Al-Zn-Cu alloy, *Journal of New Technology and Materials (JNTM)*, ISSN : 2170-161X (2019).
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18. Z. Belamri, D. Hamana, A. Azizi, L. Boumaza, A. Haddad, Effect of alloying element addition on the microstructural evolution and corrosion behavior of Fe- 30 at. % (Al+Cr) alloys, *Journal of New*

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- 35 - Z. Belamri, D. Hamana, I.S. Golovin, Study of ordering in Fe-25%Al-Cr alloys by dilatometry, heat flow and mechanical spectroscopy, *Monthly International Research Journal, Metallofizika i Noveishie Tekhnologii*, Kiev, Ukraine, 2013, T. 35, N°2, cc, 209-223.
- 36- Zehira Belamri, Djamel Hamana, Igor S. Golovin, Study of order-disorder transitions in Fe-Ge alloys and related anelastic phenomena, *Journal of Alloys and Compounds* 554 (2013) 348–356.
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- 62 - Z. Boumerzoug, and D. Hamana, ,«Different sites of discontinuous precipitation and mechanisms of dissolution in Cu-9 wt % Sb alloy», *Mater. Chem. Phys.*, 69, 10-18 (2001).
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- 84- D. Hamana, S.A. Gernov, A.F. Sirenko, "Recuit d'Homogénéisation de l'alliage d'Aluminium à 8% en poids de Magnésium sous l'Action des Vibrations Ultrasonores" Mémoires scientifiques de la revue de Métallurgie, Juillet-Août 1987, p. 397-400.
- 85- R. Halimi, D. Hamana, E.M. Chpilevski, "Réaction à l'Etat Solide dans les Couches Minces du Système Binaire Cu/Sb", Thin Solide Films, 139, p. 147-155, 1986.
- 86 - A.F. Sirenko, D. Hamana, "Interaction Between Grain Boundaries and Precipitates During Cellular Precipitation of Solid Solution" Physique du Corps Solide, N° 16, p. 43-47, 1986.
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- 92- S.A. Gernov, A.F. Sirenko, D. Hamana, "Influence of Ultrasonic Vibrations on the Kinetic of Precipitation in Supersaturated Solid Al-8% Mg Solution", Physique du Corps Solide, N°14, p. 40-43, 1984.

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List of Conference Papers

List of Current Doctoral Research Students Supervision

1. MESSAI Imad