

Name: Charafeddine Sedrati

Rank: Maitre de Conference A

Department: Materials Engineering

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Educational Profile:

- Doctorat Science/PhD in physics, in material science, University of Constantine 1, Algeria
- Magister in Physics, semiconductors, University of Constantine 1, Algeria
- DES/ in Physics, Solide state physics, University of Constantine 1, Algeria

Scientific Activities & Membership of Scientific Societies

List of Current Research Projects

List of Journal Publications

1. Bouchareb, A. Chettah, D. Bidyadhar, V. Siva, **C. Sedrati**, P.K. Sahoo, "Solubility enhancement and Au-Ni bimetallic alloy formation in immiscible Au/Ni multilayers by ion irradiation", Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms Volume 516, doi.org/10.1016/j.nimb.2022.02.006.
2. S.Siouane, A.Kabir, F.Z.Gadouche, **C.Sedrati**, A.Bouabellou, G.Schmerber, "Structural, optical and electrical characterization of Cd_{0.5}Zn_{0.5}S thin films deposited by spray pyrolysis" Solid State Sciences [Volume 121](#), November 2021, 106735
3. **C. Sedrati**, [S. Alleg](#), [H. Boussafel](#), [A. Bendali Hacine](#), "Structure and magnetic properties of nickel ferrites synthesized by a facile co-precipitation method: effect of the Fe/Ni ratio" [Journal of Materials Science: Materials in Electronics](#) volume **32**, pages24548–24559 (2021).
4. H Fiad, R Ayache, A Bouabellou, **C. Sedrati**, Formation of Nanometric Yttrium Silicides Layers onto Si (111) Substrate by Ion Implantation, Silicon 10 (2020)
5. Y. Bouachiba, A. Taabouche, A. Bouabellou, F. Hanini, **C. Sedrati**, and H. Merabti. TiO₂ waveguides thin films prepared by sol-gel method on glass substrates with and without ZnO underlayer, Materials Science-Poland,
6. **C. Sedrati**, A. Bouabellou, A. Kabir, H. Rokeya, M. Boudissa, A. Taabouche, H. Fiad, A. Hammoudi, "A study of nickel and cobalt silicides formed in the Ni/Co/Si(100) system by thermal annealing", Materials Science-Poland, Volume 38(3) (2020)
7. R. Boudaira, O. Meglali, A. Bouraiou, N. Attaf, **C. Sedrati**, M.S. Aida, Optimization of sulphurization temperature for the production of single-phase CZTS kesterite layers synthesized by electrodeposition, Journal Surface Engineering, Volume 36, 2020 - Issue 9.

8. R. Daira, A. Kabir, B. Boudjema, and **C. Sedrati**, "Structural and optical transmittance analysis of CuO thin films deposited by the spray pyrolysis method," *Solid State Sciences*, vol. 104, p. 106254, Jun. 2020, doi: 10.1016/j.solidstatesciences.2020.106254.
9. R.Djebian, [B.Boudjema](#), A.Kabir, **C.Sedrati**, Physical characterization of CuO thin films obtained by thermal oxidation of vacuum evaporated Cu, *Solid State Sciences*, Volume 101, March 2020, 106147
10. H.Sefardjella, A.Kabir, [B.Boudjema](#), N.Ben moussa, R.Chtourou, **C.Sedrati**, Characterization of ZnO:Ni thin films deposited by the spin coating method, *Materials Science in Semiconductor Processing*, Volume 103, 15 November 2019, 104619
11. W. Kerrou, A. Kabir, G. Schmerber, B. Boudjema, S. Zerkout, A. Bouabellou, **C. Sedrati**, "Characterization of C12A7 thin films deposited by spray pyrolysis", *Journal of Materials Science: Materials in Electronic*, Volume 27
12. Taabouche, A. Bouabellou, F. Kermiche, F. Hanini, **C. Sedrati**, Y. Bouachiba, C. Benazzouz, "Preparation and characterization of Al-doped ZnO piezoelectric thin films grown by pulsed laser deposition" , *Ceramics International*, Volume 42, Issue 6, 1 May 2016, Pages 6701-6706
13. **C. Sedrati**, A. Bouabellou, A. Derafa, M. Boudissa, C. Benazzouz, A. Hamoudi, "Formation of $(Co_xNi_{1-x})Si_2$ ternary silicide by thermal annealing of evaporated Co/Ni thin films on Si substrate" , *Vacuum* **117** (2015) 4-7

List of Conference Papers (starting with most recent one, using the **format below**)

1. Participation in the 9th National Congress of Physics and its Applications (poster), October 2010, KasdiMerbah University, Ouargla
1. Participation in the "INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2015(ICAME'2015)" (3 posters) Istanbul 13 - 15 May 2015
1. Participation in the "2nd International symposium on materials and Sustainable Development)" Boumerdes (Algeria) 09 - 10November 2015

List of Current Doctoral Research Students Supervision

1. Hacene Boussafel
2. Hadjoudja Hani