THE CURRICULUM VITAE OF

Prof. Slimane ACHOUR

Name: Slimane ACHOUR.

Date of birth : 27-01-1949

Marital status: Married (5 children).

Nationality: Algerian.

Institution: ENPC Constantine.

Period of duty: From1975 up to now**.**

Actual academic post: Professor (since 1995).

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QUALIFICATIONS

1- D.E.S. (Solid state physics), June 1977, University of Constantine.

2- Magister , Option: Metallurgy, Dec. 1979, University of Constantine,"Study of Inclusions in steels.

3- Doctorat d'Etat (Ph.D.), Option: Solid state Physics, Janury 1989, University of Constantine, "Room Temperature Cathodoluminescence study- Application to the Influence of beam diameter and temperature.

PREVIOUS ACADEMIC POSTS

1 - Head of solid state physics department,1990-1993, Institute of Physics, University of Constantine.

2 - Member of scientific council, 1984-93, Institute of Physics.

3 - Member of the research evaluation commitee (in the Universities Minestry), 1993-94.

4 - Director of the Ceramics Laboratory, Mentouri University, Constantine, from 2001.

LANGUAGES

Arabic, English and French.

PRESENT FIELD OF INTEREST

-Nanomaterials and nanotechnology

-Ceramic Materials.

TEACHING ACTIVITIES

1 – Under graduate :

- Electricity.
- Electric measurements.
- Fundamental electronics.
- Introduction to solid state physics.
- Metallurgy.
- Semiconductors
- Applied physics

2 -Graduation:

- Scanning Electron Microscopy.
- Physics and technology of thin films.
- Technical ceramics

3 - Works:

1 - Dictionary of physics, French - Arabic, 1990, Dar El- Hoda, Ain- Mlila, ALGERIA.

2 - Participation in the preparation of practices manual in electronics, 1992.University of Constantine, Constantine, ALGERIA.

3 – Electric circuits, 2005, University of Constantine

4 - Works in progress:

1 - Principals of electronics (Semiconductors: Diodes, Transistors and Amplification).
2 - Principals of electronics (Integrated Circuits and Digital Electronics).

SCIENTIFIC ACTIVITIES

1-S. Chaguetmi, ……S. Achour
Photoelectrochemical properties of ZnS- and CdS-TiO2 nanostructured photocatalysts: Aqueous sulfidation as a smart route to improve catalyst stability, Journal of Photochemistry & Photobiology, A: Chemistry,

2-Structural, optical and photoelectrochemical properties of TiO_2 films decorated with plasmonic silver nanoparticles
D.Guitoume[ab]S.Achour[cg]N.Sobti[c]M.Boudissa[d]N.Souami[e]Y.Messaoudi[f], Optik International Journal for Light and Electron OpticsVolume 154, February 2018, Pages 182-191

3- Adem Yar, Bircan Haspulat, Tugay Üstün, Volkan Eskizeybek, Ahmet Avcı, Handan Kamış and Slimane Achour, Electrospun TiO_2/ZnO/PAN hybrid nanofiber membranes with efficient photocatalytic activity, RSC Adv**.**, **2017**,**7**, 29806-29814.

4- S. Chaguetmi, N. Sobti, P. Decorse, L. Mouton, S. Nowak, F. Mammeri, S. Achour and S. Ammar, Visible-light photocatalytic performances of TiO_2nanobelts decorated with iron oxide nanocrystals, *RSC Adv.***, 2016,** 6, 114843-114851

5-Samiha Chaguetmi, Slimane Achour, Ludovic Mouton, Philippe Decorse, Sophie Nowak, Cyrille Costentin, Fayna Mammeri and Souad Ammar, TiO2 nanofibers supported on Ti sheets prepared by hydrothermal corrosion: effect of the microstructure on their photochemical and photoelectrochemical properties, RSC Adv., **2015**, 5, 95038

6- Monodisperse α-Fe2O3 nanoplatelets: Synthesis and characterization. Ayachi, A.A. Mechakra, H. Silvan, M.M. Boudjaadar, S. Achour, Ceramics International, vol. 41 (2015)

7- Structural and photoelectrochemical properties of porous TiO2 nanofibers decorated with Fe2O3 by sol-flame. N. Sobti, A. Bensouici, F. Coloma, C. Untiedt, S. Achour, J Nanopart Res. 16 (2014) 2577

8- Modification of cellulose acetate nanofibers with PVP/Ag addition. Kendouli, S.; Khalfallah, O. Sobti, N. Bensouissi, A. Avci, A. Eskizeybek, S. Achour, Materials Science in Semiconductor Processing, vol. 28 (2014)

- Photoelectrochemical properties of ZnO nanorods decorated with Cu and Cu2O nanoparticles. Lakehal, S. Achour, S. Ferrari, C. Buffani, E. Rossi, F. Fabrri, Superlattices and Microstructures, vol. 72 (2014)

5- Physical deposition of carbon doped titanium nitride film by DC magnetron sputtering for metallic implant coating use. S. Sedira, S. Achour, S. Avci, A. Eskizeybek, V., Applied Surface Science, vol. 295 (2014)

6- Growth and characterization of hydroxyapatite nanorice on TiO2 nanofibers. L. Chetibi, L, D. Hamana, S. Achour, Materials Chemistry and Physics, vol. 144 (2014)

7- Modification of cellulose acetate nanofibers with PVP/Ag addition. Kendouli, S. khalfallah, O. Sobti, N. Bensouissi, A. Avci, A. Eskizeybek, V., S. Achour, Materials Science in Semiconductor Processing, vol. (2014)

8- Silver nanoparticles in combination with acetic acid and zinc oxide quantum dots for antibacterial activities improvement - A comparative study, S. Sedira, A.A. Ayachi, A.A, S. Lakehal, M. Fateh, S. Achour, Applied Surface Science, vol. 311 (2014)

9- Hydroxyapatite growth on multiwall carbon nanotubes grown on titanium fibers from a titanium sheet. Loubna Chetibi , Amine Achour, Jerzy Peszke, Djamel Hamana , Slimane Achour. J Mater Sci vol. 49 (2014)

10- Synergetic effect of CdS quantum dots and TiO2 nanofibers for photoelectrochemical hydrogen generation. S. Chaguetmi, F. Mammeri, M. Pasut, S. Nowak , H. Lecoq, P. Decorse, C. Costentin, S. Achour, S. Ammar. J Nanopart Res. Vol. 15 (2013) 2140

11- Photocatalytic activity of TiO_2 nanofibers sensitized with ZnS quantum dots

Samiha Chaguetmi, Fayna Mammeri, Sophie Nowak, Philippe Decorse, Hélène Lecoq, Meriem Gaceur, Jamila Ben Naceur, Slimane Achour, Radhouane Chtourou and Souad Ammar, *RSC Adv.*, 3 (2013**)** 2572-2580

12- Ultra fast synthesis of zinc oxide nanostructures by microwaves**.** Tabet, N.; Al Ghashani, R.; Achour, S. Superlattices and Microstructures, vol. 45 (2009)

13- Mullite and alumina composites preparation from cordierite and aluminium hydroxide

N. Aklouche, S. Achour, N. Tabet, Materials Research Bulletin, vol. 43 (2008)

14- Effect of tantalum addition on microstructure and optical properties of TiN thin films

O. Bourbia, S. Achour, N. Tabet, M. Parlinska, A. Harabi, Thin Solid Films, vol. 515 (2007)

15- Influence of polarization electric field on the dielectric properties of BaTiO3-based ceramics

16- M.T. Benlahrache, S.E. Barama, N. Benhamla, S. Achour, Materials Science in Semiconductor Processing, vol. 9 (2006)

17- Porous ceramic supports for membranes prepared from kaolin and doloma mixtures

F. Bouzerara, A. Harabi, S. Achour, A. Larbot, Journal of the European Ceramic Society, vol. 26 (2006)

18- Thin SiO2 growth by combined rapid thermal and plasma processing. N. Boumaiza, S. Achour, M.E. Tayar, Thin Solid Films, vol. 261 (1995)

19- Defect distribution in electron-irradiated CdS materials

S. Achour, M.T. Benlahrache, A. Harabi, Thin Solid Films, vol. 238 (1994)

20- Effect of thermal annealing on the cathodoluminescence of evaporated CdS films

S. Achour, G.H. Talat, Thin Solid Films, vol. 144 (1986)

21- Structural and photoelectrochemical properties of porous TiO2 nanofibers decorated with Fe2O3 by sol-flame. N. Sobti, A. Bensouici, F. Coloma, C. Untiedt, S. Achour, Journal of Nanoparticle Research, vol. 16 (2014)

22- Hydroxyapatite growth on multiwall carbon nanotubes grown on titanium fibers from a titanium sheet. L. Chetibi, S. Achour, J. Peszke, D. Hamana, S. Achour, Journal of Materials Science, vol. 49 (2014)

23- Synergetic effect of CdS quantum dots and TiO2 nanofibers for photoelectrochemical hydrogen generation. S. Chaguetmi, F. Mammeri, M. Pasut, S. Nowak, H. Lecoq, P. Decorse, C. Costentin, S. Achour, S. Ammar, Journal of Nanoparticle Research, vol. 15 (2013)

24- Photocatalytic activity of TiO2 nanofibers sensitized with ZnS quantum dots. S. Chaguetmi, F. Mammeri, S. Nowak, P. Decorse, H. Lecoq, M. Gaceur, J. Ben Naceur, S. Achour, R. Chtourou, S. Ammar, RSC Advances, vol. 3 (2013)

25- Effect of thickness and orientation of alumina fibrous thermal insulation on microwave heating in a modified domestic 2.45 GHz multi-mode cavity. A. Harabi, N. Karboua, S. Achour, International Journal of Applied Ceramic Technology, vol. 9 (2012)

26- Synthesis and characterisation of ZnO/PVA composite nanofibres by electrospinning

R. Bouzerara, S. Achour, N. Tabet, S. Zerkout, International Journal of Nanoparticles, vol. 4 (2011)

27- Microwave hydrothermal synthesis and characterization of ZnO nanosheets

S. Boudjadar, S. Achour, N. Boukhenoufa, L. Guerbous, International Journal of Nanoscience, vol. 9 (2010)

28- Preparation and characterization of macroporous ceramic supports for membranes

F. Bouzerara, S. Boulanacer, A. Harabi, B. Boudaira, S. Achour, S. Condom, Physics Procedia, vol. 2 (2009)

29- Structural study and optical properties of TiO2 thin films elaborated by thermal oxidation of RF magnetron sputtered Ti films

D. Guitoume, S. Achour, A. Guittoum, S.E.H. Abaidia, AIP Conference Proceedings, vol. 1047 (2008)

30- Mullite and alumina composites preparation from cordierite and aluminium hydroxide. N. Aklouche**,** S. Achour and N. Tabet. Material Research Bulletin. Vol. 43 (2008)

31- Optical characterisation of chemically deposited Pb(1-x)Cd xS films and a Pb1-xCdxS(n)/Si(p) heterojunction. A. Ounissi, N. Ouddai, S. Achour, EPJ Applied Physics, vol. 37 (2007)

32- TiN-Fe nanocomposite thin films deposited by reactive magnetron sputtering

S. Zerkout, S. Achour, N. Tabet, Journal of Physics D: Applied Physics, vol. 40 (2007)

33- Growth of ZnO nanorods from Zn and Zn- Zn3N2 films. A. Toumiat, S. Zerkout, S. Achour, N. Tabet, L. Guarbous, L. AIP Conference Proceedings, vol. 929 (2007)

34- Calculation of the optical and electronic properties of TiNx thin films on domain IR-VIS-UV. M. Benhamida, A. Meddour, S. Zerkout, S. Achour, Journal of Molecular Structure: THEOCHEM, vol. 777 (2006)

35- Effect of nitrogen reactive gas on ZnO nanostructure development prepared by thermal oxidation of sputtered metallic zinc. A. Toumiat, S. Achour, A. Harabi, N. Tabet, M. Boumaour, M. Maallemi, Nanotechnology, vol. 17 (2006)

36- Study of erbium oxidation by XPS and UPS. N. Guerfi, O. Bourbia, S. Achour, Materials Science Forum, vol. 480-481 (2005)

37- Structure of Ti1-xTaxN thin films prepared by DC-magnetron sputtering

O. Bourbia, N. Guerfi, S. Achour, N. Tabet, A. Mosser, Materials Science Forum, vol. 480-481 (2005)

38- Effect of stabilised ZrO2, Al2O3 and TiO2 on sintering of hydroxyapatite. F. Mezahi, A. Harabi, S. Zouai, S. Achour, D. Bernache-Assollant, Materials Science Forum, vol. 492-493 (2005)

39- A process for sintering of diopside prepared from dolomite. S. Zouai, F. Mezahi, S. Achour, A. Harabi, Materials Science Forum, vol. 492-493 (2005)

40- Effect of heat treatment on TiNx film structure. S. Zerkout, M. Benkahoul, H. Sahraoui, S. Achour, A. Mosser, Materials Science Forum, vol. 480-481 (2005)

41- Dielectric properties of BaTiO3-NaNbO3 composites

M.T. Benlahrache, N. Benhamla, S. Achour, Journal of the European Ceramic Society, vol. 24 (2004)

36- Effect of stabilised ZrO2 on sintering of hydroxyapatite. Mezahi, F.; Harabi, A.; Achour, S. Key Engineering Materials, vol. 264-268 (2004)

37- Effect of temperature and Na2CO3 additions on sintering and crystallisation of anorthite. Guechi, A.; Achour, S.; Harabi, A. Key Engineering Materials, vol. 264-268 (2004)

38- Effect of Fe2O3 additions on dielectric properties of BaTiO3-NaNbO3 ceramics

Benlahrache, M.T.; Achour, S.; Barama, S.E.; Seridi, F.; Harabi, A. Key Engineering Materials, vol. 264-268 (2004)

39- On the existence of superstructure in TiNx thin films. Zerkout, S.; Achour, S.; Mosser, A.; Tabet, N. Thin Solid Films, vol. 441 (2003)

40- Phase transformation in Kaolin-doloma mixture. Harabi, A.; Boudchicha, M.R.; Aklouche, N.; Achour, S. Key Engineering Materials, vol. 206-213 (2001)

41- Crystallization and sintering of cordierite and anorthite based binary ceramics

Boudchicha, M.R.; Achour, S.; Harabi, A. Journal of Materials Science Letters, vol. 20 (2001)

42- Effect of Tantalum addition on optical transmittance and electrical resistivity of TiN thin films prepared by d.c. magnetron sputtering. Bourbia, O.; Achour, S.; Zerkout, S.; Benkahoul, M.; Harabi, A. Key Engineering Materials, vol. 206-213 (2001)

Effect of doloma addition on mechanical properties of mullite prepared from kaolin

HARABI, B. KAOUACHE and S. ACHOUR, *Polish Ceram. Bull*., Vol 60 (2000) 397-402

Anorthite based ceramics preparation from kaolin and calcium hydration

S. ACHOUR,. M. R. BOUDCHICHA and A. HARABI, *Polish Ceram. Bull*., 60 (2000) 357-360.

43- Process for sintering of MgO and CaO based ceramics. Harabi, A.; Achour, S. Journal of Materials Science Letters, vol. 18 (1999)

44- Cathodoluminescence dependence on beam generation conditions and surface properties of materials. Achour, S.; Belahrache, M.T.; Harabi, A.; Tabet, N. Solid State Phenomena, vol. 63-64 (1998)

45- Cathodoluminescence dependence upon irradiation time. Achour, S.; Harabi, A.; Tabet, N. Materials Science and Engineering B, vol. 42 (1996)

Iron doped titanium nitride films. M. FERGAG, S. ACHOUR, A. HARABI and K. MIROUH, *Ceramic Processing and Technology*, vol. 51 (1995) 789 - 792.

46- Cathodoluminescence dependence on electron beam diameter. Achour, S.; Benlahrache, M.T.; Harabi, A.; Tabet, N. Materials Science and Engineering B, vol. 24 (1994)

Defect Distribution in Electron - Irradiated CdS Materials. S. ACHOUR, M.T. BENLAHRACHE, A. HARABI. *Thin Solid Films*, vol. 238 (1994) 110-114

47- Cathodoluminescence and X-ray analysis of defect reaction in Ag-CdS polycrystalline layers. Achour, S. Philosophical Magazine B: Physics of Condensed Matter; Electronic, Optical and Magnetic Properties, vol. 61 (1990)

48- Cathodoluminescence Determination of the Temperature Rise in CdS under Electron BeamSpot. S. Achour, Phil. Mag. B, vol. 329 (1990)

49- Effects of surface treatments on cathodoluminescence from CdS and GaAs. Achour, S. Philosophical Magazine Letters, vol. 59 (1989)

50- Cathodoluminescence from low energy electron bombardmentof CdS. Achour, S. Philosophical Magazine Letters, vol. 57 (1988)

Effect of Thermal Annealing on the Cathodoluminescence of Evaporated CdS Films. S. Achour and G. H. Talat. Thin Solid Films, 144, 1, (1986)

51- Cathodoluminescence Interference Effect in Evaporated CdS Films. S. ACHOUR, F. TERRA, M. A. RIAD, A. Y. MORSY, A. A. EL-SHAZLY and G. H. TALAT, Egybtion Journal of Solids, Vol. 8 (1985).

Patent

1 – N. Kerboua**,** S. Achour and A. Harabi, Design and Realization of a High Temperature (~1550°C) Microwave Heating Element at 2.45 GHz **(**Réalisation d'un système de chauffage à micro-onde (2.45 GHz) à haute température (~1550°C)), Algeria, Patent N° 040365.