

CURICULUM VITAE

INFORMAŢII PERSONALE ABRUDEANU Mărioara

ORCID https://orcid.org/0000-0002-3398-1197)
Researcher ID: AAK-4350-2020.
Brainmap ID: U-1700-038J-4441.
e-mail :marioara.abrudeanu@upb.ro,
abrudeanu@gmail.com

Sexul F | Naţionalitatea Română

EXPERIENTA PROFESIONALA

1 oct.2023 –in prezent: profesor univ. emerit conducator de doctorat , Scoala doctorala de Stiinta si Ingineria Materialelor, Facultatea de Stiinta si Ingineria Matrialelor, Universitatea Nationala de Stiinta si tehnologie POLITEHNICA Bucuresti

1 oct.2015-1 oct 2023 Profesor universitar emerit,conducator de doctorat , Scoala Doctorala Interdisciplinara, Facultatea de Mecanica si Tehnologie, Universitatea din Pitesti

Oct 1997- oct 2015 Profesor, Departametul de Fabricatie si Magagement Industrial, Facultatea de Mecanica si Tehnologie, Universitatea din Pitesti
Conducator de doctorat in domeniul Ingineria materialelor: 10 teze de doctorat elaborate i n cotutela internationala cu: Scoala Centrala din Paris, INSA Lyon, Universitatea din Toulouse-ENIT, Universitaeta din Metz, Universitatea Blaise Pascale Clermont Ferrnand, Universitatea Bordeaux Montiagne.
2000-2006: 2 luni/an profesor invitat la Institutul National de Stiinte Apicate din Lyon (INSA Lyon), Curs: Coroziune la temperaturi inalte.
Crearea Centrului de formare continua, 2002
Crearea la Universitatea din Pitesti, in colaborare cu BECO –AUF a Centrului de performanta academica 2014.

oct 1993-oct 1997 Conferentiar , Facultatea de Mecanica si tehnologie , Universitea din Pitesti
1993: initiere si coordonare in colaboratre cu Ecole Centrale Paris, modul francofon „*Corrosion et protection contre la corrosion*”
ian-martie 1994 : Cercetator pe program PECO la Scoala Nationala Superioara de Chimie (ENSIACET)-Insitutul Politehnic Toulouse, Laboratorul de Materiale in

straturi subtiri, raport de cerectare *„Chemical deposits as vanadium carbonitration vapors, on steel support, starting from organometallic precursors".*

!994- Initiatoare a masterului in limba franceza „Stiinta si Tehnologia Materialelor, cu colaborarea a 8 universitati si „grandes ecoles „franceze. Din anul 2004, absolventilor acestui master li se acorda diploma demaster de cercetare a Institutului Politehnic din Toulouse/Universitatea din Toulouse.

oct 1972- oct 1993 Asistent universitar si sef de lucari in Cateda de Tehnologie si Management, Universitatea din Pitesti/Institutl de Invatamant Superior Pitesti

1992- Cercetator invitat pe post rosu al Centrului National de Cercetaru Stiintifice al Frantei (CNRS) laInstitutul de Materiale , Universitatea Paris Sud -raport de cercetare *„"Study on obtaining through oxidation a proper surface for the use of Fe-Cr-Al as metallic support for a catalytic filter"*

Cursuri predate in limba romana si franceza, in domeniile stiinta materialelor, tehnologie si coroziune.

aug 1972-sept 1975 stagiul la Uzina de Autoturisme Pitesti-Serviciul Metalurg sef:inginer tehnolog, sef grupa tehnologi, responsabil colectiv proiectare .

Cursuri predate in limba romana si franceza, in domeniile stiinta materialelor, tehnologie si coroziune.

EDUCATIE SI FORMARE

1963-1967 Liceul „Decebal" Deva

!967-1972 Facultatea de Metalurgie , Institutul Politehnic Bucuresti

1991 Diploma de doctor , Institutul Politehnic Bucuresti

Dec 1991-aug 1992 : stagiu post doctoral (9 luni), cu bursa a guvernului francez, la Institut National Polytechnique de Lorraine, Université Nancy I, Ecole des Mines de Nancy, Laboratoire de Science et Génie des Matériaux Métalliques. Raport de stagiu : *L'influence de l'oxydation à haute température sur la structure et les propriétés de transfert thermique de l'alliage Zircaloy 4*

Mai 1992. Formare continua (3 saptamani) la Universitatea Mreseille 2 Luminy-certificat „*Materiale, suprafete, interfete si straturi subtiri*"

1992-1996. Stagii la Scoala Centrala Paris, Universitatea Paris Nord, Univeristatea Autonoma Barcelona-Institutul de Materiale, CESI-Paris, Universitatea Wolverhampton, Odense Universit

COMPETENTE PERSONALE

Limba materna : romana

Alte limbi cunoscute	Intelegere		Vorbire		Scriere
	Ascultare	citire	participare la conversatie	Discurs oral	
Franceza	C2	C2	C2	C2	C2
Engleza	B1	A2	A1	A1	B1
Rusa	B1	B1	B1	A1	A2

ALTE INFORMATII

Alte activitati si responsabilitati

- Director Relații Internaționale, Universitatea din Pitesti , 1997-2000;
- Prorector pentru cercetare, relații internaționale si formare continua, Universitatea din Pitesti 2000-2004;
- Presedinta a Consiliului stiintific, Universitatea din Pitesti 2000-2004;
- Presedinta a Fundației Universitare Pitesti, 1992-2015
- Prorector pentru cercetare si competivitate , 2012-2015

- Membra CNADTCU 2011-2015
- Membra a Consiliului National CNCSIS 2003-2008
- Membru titular al Academiei de Stiinte Tehnice din Romania, 2005
- Mambra CRIFST - Academia Romana,2011
- Membra CREDING,2015

Membra a comitetului pentru proiecte francofone, Cancun-Mexic,2014

Distinctii, decoratii

- *Decorația "Palmes Academiques" in grad de cavaler acordata de Adunarea Națională a Franței, 1996*
- *Medalia pentru cercetare, CNCSIS, 2008*
- *Diploma « Rayonnement -Honeur – Prestige » acordata pentru contribuția activa la imaginea pozitiva a Romaniei, 2019*
- *Diploma de « Merit stiintific » acordata de CRIFST-Academia romana pentru cercetari privind mortarul roman, noiembrie 2025*

LISTA DE LUCARI
9 carti publicate in edituri centrale
9 manuale

Articole WOS in domeniul Materiale nucleare

- Comparative Study on Heat Transfer Through Three Candidate Alloys for Fuel Element Cladding. M Abrudeanu, et al. *Appl. Sci.* 2026, *16*(2), 800; https://doi.org/10.3390/app16020800
- Assessment of Volatile Radionuclide Release in the ALFRED Lead-Cooled Fast Reactor, A. Ivan, M. Tarantino, M. Abrudeanu, D. Diaconu, and D. Gugiu,', Journal of Nuclear Engineering, vol. 6, no. 3, p. 36, Sept. 2025, https://doi.org/10.3390/jne6030036 (FI 1.2 - Q3)
- Trace-level impurity quantification in lead-cooled fast reactors using ICP-MS: Methodology and challenges, A. M. Ivan, M. Abrudeanu, M. Tarantino, D. Gugiu, D. Diaconu, and D. Mirita, '', Reviews in Analytical Chemistry, vol. 44, no. 1, p. 20250088, Aug. 2025, https://doi.org/10.1515/revac-2025-0088 (FI 3.8 - Q2)
- Effects of Prior Chemical Treatment in a Nitric Acid, and a Weak Perpendicular to the Surface Heterogeneous Magnetic Field on the Corrosion behavior of AISI 316L Austenitic Stainless Steel, Intended for Use as an Implant, in Chloride Solution, Djedjiga Ben Abdesselam, N. Zazi, Hellal Fatah, Mărioara Abrudeanu Denis Negrea, Jean-Paul Chopart, 2025, Protection of Metals and Physical Chemistry of Surfaces 60(6):1183–1199, DOI:10.1134/S2070205124702435
- Evaluation of the Zirconium Hydride Morphology at the Flaws in the CANDU Pressure Tube Using a Novel Metric", A. Ion Jinga,M. Abrudeanu,V. Radu,Al. Nitu,L. Stoica,D. Toma,M.I. Petrescu, "MDPI – Applied Sciences 2025, Vol.15, Issue, indexat WOS, publicat 15.01.2025, http//doi.org/10.3390/app1502078, IF 2.5.
- Experimental Research on the Influence of Repeated Overheating on the Thermal Diffusivity of the Inconel 718 Alloy; Elis□bet□Rox□n□Ungure□nu Arv□, M□rio□r□Abrude□nu, Denis Aureli□n Negrea, Andrei Galatanu, Magdalena Galatanu, Alin-Daniel Rizea, Daniel-Constantin Anghel, Mihai Branzei, Alexandra IonJinga and Mircea Ionut Petrescu, Appl. Sci. 2024, 14, 8574. https://doi.org/10.3390/app14188574 https://www.mdpi.com/journal/applsci
- The Influence of Cyclic Thermal Shocks at High Temperatures on the Microstructure, Hardness and Thermal Diffusivity of the Rene 41 Alloy, Elisabeta Roxana Ungureanu Arv□; Denis Aureli□n Negre□; Andrei G□l□t□nu; M□gd□len□G□l□t□nu; Sorin Georgi□n Mog□; D□niel-Const□ntin Anghel; Mih□i Br□nzei; Livi□Stoic□; Alex□ndr□Ion Jing□; Mirce□Ionut Petrescu; Corneliu Munte□nu; Marioara Abrudeanu, Materials 2024, Volume 17, Issue 10, 2262; https://doi.org/10.3390/m□17102262; IF 3,4, Q2
- Structure and heat transfer in zircaloy - 4 treated at high, temperature, Mărioara Abrudeanu, Maria Magdalena Dicu, Maria Minodora Pasăre, Collection of Papers in Material Science from https://www.mdpi.com/journal/materials/special_issues/Materials_,2021https://doi.org/10.3390/ma14164494
- The influence of thermal shocks on the thermophisics properties of the zircaloy-4, D C Anghel, AE Rosu, G Neacsu, IA Popa, M Branzei, V Rizea, CM Ducu, MM Dicu, AD Rizea, E Ungureanu, M Abrudeanu,2019, Revista de chimie , Bucharest, 70, 2, p 575-577. https://doi.org/10.37358/RC.19.2.6958
- The influence of the high temperatures thermal shocks on the microstructure and harness of zircaloy-4 alloy A. Popa, A. E. Rosu, G. Neacsu, D. C.n Anghel, V. Rizea, M Branzei, CM. Ducu, M.M. Dicu, M. Abrudeanu, 2018 The influence of the high temperatures thermal shocks on the microstructure and harness of zircaloy-4 alloy, Revista de chimie, 69(7),1655-1660,

https://doi.org/10.37358/RC.18.7.6389

- Chemical redistribution and microstructural evolution of ODS Fe-Cr powders during mechanical alloying, M. Stanciulescu, M. Abrudeanu, C. Ducu, A.G.Plaiasu, 2018.,:, Revista de Chimie (Bucuresti), 69, nr.2,p.495-498,
- The study of the mechanical properties of small tubes made from Oxide Dispersion Strengthened steel by using the Ring Tension Tests , Al. Nițu, V. Radu, E. Ungureanu, M. Abrudeanu,2018, Revista de chimie ISSN 0034-7752, vol. 69, nr. 11/2018 (accept de publicare nr.51/18.04.2018); ttps://doi.org/10.37358/RC.18.11.6676
- Dissolution Behavoiur of Alloyng Elements Into Vanadium Matrix During Mechanical Milling , Madalina Stanciulescu, Mărioara Abrudeanu, Andrei Galatanu, Paula CARLAN Maria Mihalache:, Rev.Chim.(Bucharest)68.No. 5 ,2017, pag 1109-1113, https://doi.org/10.37358/RC.17.5.5622
- Isothermal Oxid□tion of UO2 Fuel Pellets in Ste□m I Dumitrescu, Iuli□M□ri□; Mih1□che, M□ri□; Abrudeanu, Marioara, 2015 :.Revista de chimie Volume: 66 Issue: 2, 290-293, https://www.revistadechimie.ro/Articles.asp,ID=4414
- Fuel Pellets Phase Composition Evolution During Steam or Air Oxidation,I.Dumitrescu,, M .Mih□1□che, A Dinu,; Meleg, T Oh□i, D, Abrude□nu, M,2015, REVISTA DE CHIMIE Volume: 66 Issue: 3, 316-319. https://revistadechimie.ro/Articles.asp,ID=4420
- The Influence of the Thermal Cycling on Grains Size of the Nickel-based Alloys , Vulpe S.C., Abrudeanu M., Ohai D., Plaiasu A.G., Radutoiu N.,2012, , Revista de Chimie, Volume: 63, Issue: 11, 1112-1115, Published: NOV 2012; https://www.researchgate.net/publication/267688314_The_Influence_of_the_Thermal_Cycling_on_Grains_Size_of_the_Nickel-based_Alloys
- The Influence of the Thermal Transient Regime on Grain Size at Nickel-based Alloys , Vulpe S.C., Abrudeanu M., Ohai D., Plaiasu A.G., Rizea V., Radutoiu N., 2012, , Revista de Chimie, Volume: 63, Issue:10, 1026-1030, https://www.revistadechimie.ro/Articles.asp?ID=3467.
- A comparative study on tribocorrosion of two Ni - Cr model alloys in a solution of boric acid and lithium hydroxide, Claudiu Constantin Ionescu, Pierre Ponthiaux, Mărioara Abrudeanu, François Wenger, Florina Constantin,2011 Revista de Chimie, ISSN 0034-7752, 62, 11, 1077-1084.
- Effect of normal force on tribocorrosion behaviour of Ni - 30Cr model alloy in LiOH - H3BO3 solution, Claudiu Constantin IONESCU, Mărioara ABRUDEANU, Pierre PONTHIAUX, François WENGER,2011, Revue Roumaine de Chimie, ISSN 0035-3930, 56, 9, 907-915,
- Alice Dinu, M. Abrudeanu, M. Radulescu, L. Velciu, 2006,::"Electrochemical Studies on Stress Corrosion Cracking of Incoloy-800 in Caustic Solution, Part II: Precracking samples, Nuclear Technology&Radiation Protection, NT&RP, Vol. XXI, No. 1, Pp34-40, YU ISNN 1451-3994
- P.Archambault, M Abrudeanu,1993, Influence de l'oxydation et de l'état structural sur les propriétés thermo-physiques d'un alliage a base de zirconium,*1993, Journal of Nuclears Materials*, 200, 2, 162-168.

Lucrari in domeniul Materiale nucleare, prezentate la conferinte internationale

- M Abrudeanu, A Dinu, M Petrescu, N Petrescu,2008, :Stress corrosion cracking in nuclear fuel cladding, The 32nd Annual Congres of of the American Roamanian Academy of Arts and Sciences, Boston, Procedings, Politechnic International Press, Montreal Quebec .ISBN 978-2-553-01424-6, 214-217
- M Abrudeanu, P Archambault, 1995, Corrélation microstructures- propriétés pour l'alliage zircaloy 4, Conferinta *Zr-95, Saclay*, Franta,303-312
- M Abrudeanu ,P Archambault,1994, L'influence de l'oxydation à haute température sur la diffusivité thermique de l'alliage Zy-4, plenary conference*, 9e, Congrés International du Traitement Thermique et de l'Ingénierie des Surfaces,* Nice,. 87-93.

- M Abrudeanu, P.Archambault, G Petot -Ervas , N Petrescu, M. Petrescu, 1993, Microstructure and electron microprobe study of oxide layers obtained on zircaloy-4 by oxidation at high temperature, Microscopy of Oxidation 2, Proceding of the Second International Conference Held at Selwyn College *University of Cambridge*, p.387-395, IM- ISBN 0901 716502..
- M Abrudeanu, N Petrescu, 1991, Diffusion coefficients of oxigen in zirconium alloys during dry oxydation, *International Conference of Diffusion and Defects in Solids DD91, Academy of Sciences, Moscou- URSS*,. 75, 84.

Proiecte de cercetare in programe internationale

 Contract NATO, 1992, cu ref.SFP 974-054 *Dezvoltarea unor nanomateriale pe bază de oxid de zirconiu pentru aplicaţii care utilizează proprietăţile electrice si mecanice*
 Contract PECO cu nr 8087/Ref. ERB 3510 Pl 20279, 1994, *Realizarea unor straturi de carbonitruri de vanadiu pe suport din oţel carbon prin depunere chimică in faza de vapori plecand de la precursori organometalici.*
 Contract European FP-6Acces la resurse *SOLFACE, 2006, coorodonare Prof Claude Monty - Laboratorul Solar Odeillo," ZnO based Nanostructured Coatings and Thin films- NANOCOAT"*
 Contract european facilitati - Acces aux resources FP7 : SYCANCO - Synthesis and characterization of nanomaterials for coatings with specific properties, CNRS Odeillo Franţa, perioada 2010-2011
 Contract facilitati - Acces aux resources FP7 : NESGED- Nanopowders Elaboration and sintering of CeO2-Gd doped nanopowders, 2012-2013
 FP7 Specific Programme 'Capacities' - Optimising the use and development of research infrastructures, Project reference: 228296, NANOCOMAFI: Synthesis and characterisatios of nanostructured cooper and manganese oxide powders for thin film elaborations, 2013
 FP7 Specific Programme 'Capacities' - Optimising the use and development of research infrastructures: Disulphide of molybdenum nanostructure synthesis and characterisation for obtain greases with hight adhesion to metals – NANODISMOLY-2014 under SFERA (Solar facilities for the European research area), 2014-
10
 FP7 Specific Programme 'Capacities' - Optimising the use and development of research infrastructures, Influence of structural transformations performed by thermal shock on thermal diffusivity alloy zircaloy-4, acronimul:TERMOSHOCZY, 2015
 FP7 Specific Programme 'Capacitie' - Study of variation of the mechanical properties of superalloys Inconel 718 and Rene 41 under thermal shook" TERMOINCORENE P1601300180, SFERA 2016
 FP7 Programme 'Capacitie Thermal Shock and Fatigue on Shape memory alloy from CuZnAl and CuAlNi systems – HTSMAs,Acronym: TERMOMEM, SFERA 2017 :
 Orizont 2020 **:**Experimental route of fabrication for Fe-Cr oxide dispersion strengthened steel used in Generation IV nuclear reactors construction= FECRODS- SURPF2001300034FECRODS, 2020-2023
 The influence of sintering temperature on the structure and properties of ceramics, SURPF2201300021 *TERMOCER, 2022-2023*

Conducere de doctorat

19 teze finalizate, 8 in curs de elaborare , din care 10 teze in colaborare internationala

Teze finalizate in doemniul Materiale nucleare

1. Cercetari privind coroziunea fisuranta sub sarcina a unor materiale utilizate in energetica nucle□r□,2008 ; Uiniversity of Pitesti, 2008 , Alice Daniela Dinu
2. Coroziunea aliajelor nucleare in conditii de accident sever /*Corrosion des alliages nucleaires en conditions d'accident severe., University of Pitesti, 2011,* Tiberiu Meleg
3. Caracterizarea mecanismelor de uzare prin tribocoroziune a unor aliaje utilizate in domeniul nuclear/*Caracterisation des mecanismes d'usure par tribocorrosion d'alliages utilises dans le domaine nucleaire, French -Romanian Coordination*: Universitatea din Pitesti /*Ecole Centrale Paris* –pr. P Pontiaux *2011,* Claudiu Ionescu
4. Cercetari privind comportarea termomecanica a unor aliaje cu continut înalt de nichel in vederea utilizarii in reactoarele de generatie IV, Universitatea din Pitesti, 2013, Sanda Vulpe
5. Contribuţii la studiul comportării matricei de combustibil nuclear în condiţii de accident sever, Universitatea din Pitesti, 2018, Iulia Maria Dumitrescu
6. Contribuții privind studiul unor mecanisme de defectare întâlnite la materialele structurale utilizate în energetica nucleară, Universitatea din Pitesti, 2019,Alexandru Ionut Nitu
7. Cercetari privind influenta socurilor termice asupra structurii si proprietatilor unor aliaje cu memoria formei",2021, Madalina Gabriela Stanciulescu:
8. Cercetări privind influența solicitarilor termice la temperaturi inalte ssupra aliajelor René 41 si Inconel 718, inuie 2024. Elisabeta Roxana Ungureanu (Arva)
9. The theme of the scientific research program: the identification of materials efficient in capturing volatile radiotoxic elements from the coating gas of the new generation fast reactors cooled with liquid metal, in particular the ALFER*D reactor.* Adsorbtion of radiotropic volatile elements from Gen, IV-LFR, *colaborare internationa*l a cu- E*.N.E.ABologna- Italia, prof. Mariano Tarantino* Ana Maria Ivan (Dicu)
10. Contribuții privind influența hidrogenului si a hidrurilor de zirconiu asupra integrității structurale a unor componente din aliaje de zirconiu utilizate in energetica nucleară, Alexabdra Ion (Jinga)

20.09.2026 **Abrudeanu Mărioara**

Nom du document : 20,09.26 Abrudeanu Mărioara.docx
Répertoire : C:\Users\Home\OneDrive\Desktop\MA\CV
Modèle : C:\Users\Home\AppData\Roaming\Microsoft\Templates\Normal.dotm
Titre :
Sujet :
Auteur : marioara abrudeanu
Mots clés :
Commentaires :
Date de création : 20/09/2026 20:46:00
N° de révision : 2
Dernier enregistr. le : 20/09/2026 20:46:00
Dernier enregistrement par : marioara abrudeanu
Temps total d'édition : 1 Minute
Dernière impression sur : 20/09/2026 20:46:00
Tel qu'à la dernière impression
Nombre de pages : 8
Nombre de mots : 3.423 (approx.)
Nombre de caractères : 18.829 (approx.)