



Mărioara ABRUDEANU

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PUBLICATIONS, PROJETS/CONTRACTS, PATENTS ET THESES COORDONNEES

A. LISTE DES PUBLICATIONS, 1990-2015

A1. LIVRES –maisons d'editions centrales :

- **Marioara Abrudeanu**, Adriana-Gabriela Plăiașu, Maria-Magdalena Dicu, 2015, Materiale-compozitie, microstructura, proprietati, ISBN 978-973-47-1827-6, Editura Paralela 45,
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- **Marioara Abrudeanu**: Materiale , Ed Paralela 45, 2011, ISBN 978-973-47-1124-6,
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- N. Bizon, **M Abrudeanu**, T Macarie, D Chirlesan, G Chilesan, E Neagu, 2001, Tehnologia informatiei si comunicarii, Editura Tehnica, 2002, Bucuresti, ISBN 973-31-2062-6.
- **Marioara Abrudeanu**, Roxana Piticescu, Radu Piticescu, 2000, Sinteza pulberilor ceramice in medii ultradisperse, Editura Tehnica, Bucuresti, ISBN 973-31-1381-6
- Ioan Lita, **Marioara Abrudeanu**, 2000, Efectul radiatiilor asupra materialelor si componentelor electronice, Editura Tehnica, Bucuresti, ISBN 973-31-1495-2.
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- Adriana-Gabriela Plaiasu, Constantin Vahlas, **Mărioara Abrudeanu**, Maria Magdalena DICU, 2012, Termodinamica în metalurgie. Aplicații, ISBN 978-606-560-280-9/, Ed. Universitatii din Pitești,
- **M Abrudeanu** , 1997, 1999, Studiul materialelor Vol.1,2, Ed. Universitatii Pitesti ISBN 973-988-19-1-2.
- **M Abrudeanu**, I Lita, 1997, Materiale pentru electromecanică - tehnici de laborator, Ed. Pygmalion Pitești, ISBN 973-96591-9-5.
- **M Abrudeanu**, 2001, Tehnologia materialelor vol.1, Ed. Universitatii, Pitesti, ISBN 973-8212-81-2.
- **M Abrudeanu**, M Gavrilă, 1997, Durabilitate și coroziune- tehnici de laborator, Ed. Pygmalion Pitești, ISBN 973-96591-8-7
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A3. Articles dans les revues cotation ISI

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- A. Popa, A. E. Rosu, G. Neacsu, D. C.n Anghel, V. rizea, M Branzei, CM. Ducu, M.M. Dicu, **M. Abrudeanu** The influence of the high temperatures thermal shocks on the microstructure and harness of zircaloy-4 alloy, Revista de chimie, 69(7), 1655-1660, july, 2018
- M. Stanculescu, **M. Abrudeanu**, C. Ducu, A.G.Plaiasu : Chemical redistribution and microstructural evolution of ODS Fe-Cr powders during mechanical alloying, , Revista de Chimie (Bucuresti), 69, nr.2,p.495-498, 2018.
- Al. Nițu, V. Radu, E. Ungureanu, **M. Abrudeanu**, The study of the mechanical properties of small tubes made from Oxide Dispersion Strengthened steel by using the Ring Tension Tests, Revista de chimie ISSN 0034-7752, vol. 69, nr. 11/2018 (accept de publicare nr.51/18.04.2018);
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A.4. Travaux Proceedings ISI

- Geanina Laura Pintilei, **Marioara Abrudeanu**, Corneliu Munteanu, Dragomir-Stanciu Daniel, Ionut Vasile Crismaru, 2015 „The characterization of an 99,5% Al₂O₃ coating deposited on a Ti alloy and subjected to thermal shock”, *Procedia Technology* 19, 276 – 283
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B. PROJETS/CONTRACTS

B.1. Projets de recherche dans les programmes internationaux

- Contract PECO cu nr 8087/Ref. ERB 3510 PI 20279, 1994, *Realizarea unor straturi de carbonitruiri de vanadiu pe suport din oțel carbon prin depunere chimică în faza de vapori plecând de la precursori organometalici.*
- Contract NATO, 1992, cu ref.SFP 974-054 *Dezvoltarea unor nanomateriale pe bază de oxid de zirconiu pentru aplicații care utilizează proprietățile electrice si mecanice .*

- Contract European FP-6Acces la resurse **SOLFACE**, 2006, coordonare Prof Claude Monty - Laboratorul Solar Odeillo, "ZnO based Nanostructured Coatings and Thin films- NANOCOAT"
- Contract european facilitati - Acces aux ressources FP7 : **SYCANCO** - Synthesis and characterization of nanomaterials for coatings with specific properties, CNRS Odeillo Franța, perioada 2010-2011
- Contract European FP-6Acces la resurse P11022800000121 **SYNPAC** The influence of synthesis and electrodeposition process parameters on particle/metal matrix composites coatings, 2011.-2012
- Contract facilitati - Acces aux ressources FP7 : P12031200040275 **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 characterisation of nanostructured copper and manganese oxide powders for thin film elaborations, 2013-2014
- FP7 Specific Programme 'Capacities' - Optimising the use and development of research infrastructures: Disulphide of molybdenum nanostructure synthesis and characterisation for obtain greases with high adhesion to metals – **NANODISMOLY**-2014 under SFERA (Solar facilities for the European research area), 2014-2015
- 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, **TERMOSHOCZY**, 2015-2016
- FP7 Specific Programme 'Capacities' P1601300180 --**TERMOINCORENE** FP7 Specific Programme 'Capacities' - Optimising the use and development of research infrastructures – Study of variation of the mechanical properties of superalloys Inconel 718 and Rene 41 under thermal shock, 2016-2017
- FP7 Specific Programme 'Capacities' P1701310254 **THERMOMEM** -Thermal shock and fatigue on shape memory alloy from CuZnAl and CuAlNi systems

B.2. Projets de recherche dans les programmes nationaux, 2005-2011

- Tehnologii inovative destinate îmbunătățirii proprietăților de suprafață ale materialelor metalice, utilizate în producția de automobile, 2007-2010, PNCDI 71-038/2007
- HIFERTBIOM - „Dezvoltarea unui sistem integrat de producere a hidrogenului și fertilizatorilor pentru sol prin valorificarea biomasei și reziduurilor, 2007-2010, 21-013/18.09.2007
- ASPIDHA - Aprofundarea cunoștințelor de spintronică prin dezvoltarea fizicii compușilor Heusler ajustabili, 2005-2008, CEX 05-D11-69/2005
- CARBOCOMP – Studiul comparativ al calitatii straturilor nanostructurate de carbon depuse prin metodele arc termoionice (TVA -Thermionic Vacuum Arc), 2006-2009, CEEX - CERES 2-CEX06-11-62/26.07.2006
- ELSURFSTRUCT - Platformă tehnologică integrată de inginerie electrochimică a suprafețelor pentru materiale avansate; aplicații în domeniul evaluării integrității și fiabilității structurilor, 2006-2009, CEEX - RELANSIN 255/ 2006
- Hy-Prod-PEMEL - Dezvoltarea unui sistem de producere a hidrogenului, la costuri scăzute, prin metoda electrolizei cu membrana schimbatoare de protoni, 2006-2009, CEEX - MENER 703/2006
- MEDUR- Cercetări privind mecanismul durificării și stabilitatea la cald a oțelurilor de tip maraging, 2006-2009, CEEX - RELANSIN 297-3/ 2006
- NEWSOLPEM - Dezvoltarea și implementarea de noi soluții în vederea îmbunătățirii performanțelor pilor de combustie cu membrană schimbătoare de protoni, 2005-2008, CEEX - MENER 605/2005
- NuclearMat-IV Materiale pentru reactorii nucleari din Generația IV, 2005-2008, CEEX - MATNANTECH 44/ 2005
- RIMIS – Rețea integrată de monitorizare a integrității structurale a componentelor critice din instalațiile nucleare, 2007-2010, CEEX - CERES 2 CEX - 06 - 10 - 91 / 2006
- CEREPC – Convertor energetic regenerativ de tip electrolizor-pila de combustie; proiectare arhitecturală și realizare, 2007-2010, PNCDI 21-030/2007
- COMCRIOMAT – Platformă integrată pentru cercetări și studii experimentale ale proceselor complexe dezvoltate la nivelul temperaturilor criogenice, 2005-2008, CEEX - MATNANTECH 43/ 2005
- INFORISC – Sistem informatic fuzzy de simulare și evaluare a scenariilor de risc tehnologic și ecologic și a modurilor de acțiune în contextul schimbărilor climatice, 2007-2010, PNCDI 31-021/2007
- IRCOAL – Materiale noi, din compuși intermetalici, folosite ca ținte de iradiere pentru sursele gama de iridiu și cobalt, utilizate în industrie și medicină, 2007-2010, PNCDI 71-141/2007
- ReMeHPC – Cercetarea și dezvoltarea unui Reactor Membrana pentru producerea Hidrogenului ultrapur utilizabil în alimentarea Pilelor de Combustie, 2007-2010, PNCDI 21-004/2007

B.3. Projets Éducatifs

- TEMPUS JEP 11243 -97
- TEMPUS JEP12434 -99
- Coordinateur projet TEMPUS CME 03056-98,
- TEMPUS JEP 14448-99, 62

- Leonadro da Vinci „DOUBLE EVOLUTION”
- PERFORM –POSDRU/159/1.5/S/138963, 2014-2015
- Contract Agence Universitaire de la Francophonie : Ecole doctorale francophone internationale- Caractérisation des biens de patrimoine culturel materiele par des technioques spécifiques à l'ingénierie des matériaux.

C. BREVETS

- Sutan C, Didea I, **Abrudeanu M** et al.Side impact passive protection system for automobiles has structure for taking over the effect of side impact and it consists of some horizontal platbands, Patent Number: RO129771-A2, Patent Assignee: Univ Pitesti – BI nr.12771, CBI nr.a 201300257/12.2015
- Sutan C, Didea I, **Abrudeanu M** et al.Radio controlled multi function platform for collecting environment samples, Patent Number: RO129766-A2 , Patent Assignee: Univ Pitesti

D. THESES COORDONNEES

No	Doctorand	Conducator de doctorat	Titlu	sustinere	Diploma eliberata
1	Luminita Elena Din Stirbu	<i>French -Romanian Coordination:</i> Universitatea din Pitesti – Prof.M Abrudeanu <i>/Institut National de Sciences Appliquées Lyon- Pr. Jean-Pierre Millet</i>	Comportarea la coroziune a aliajelor de aluminiu utilizate in industria de automobile la fabricarea radiatorului de încălzire <i>/Influence des inhibiteurs dans le liquide de refroidissement utilisé dans l'automobile sur le comportement a la corrosion de l'alliage AlMn</i>	26.11.2005 Universitatea din Pitesti	1.11.2006 - diplôme d'état roumaine , Diplôme d'état français 7.07.2006 INSA Lyon Franta
2	Maria Minodora Brânzan Pasare	Universitatea din Pitesti- Prof. M Abrudeanu	Studii si cercetari privind structura si proprietatile straturilor compozite Ni-P/SiC realizate pe suport metalic	25.04.2006 Universitatea din Pitesti	4.05.2007 diplôme d'état roumain
3	Alice Daniela Dinu	Universitatea din Pitesti – Prof. M Abrudeanu	Cercetari privind coroziunea fisuranta sub sarcina a unor materiale utilizate in energetica nucleara;	21.06.2008;	04.11.2008, diplôme d'état roumain, OM 5837.
4	Gabriela Adriana Schiopu Plaiasu	Universitatea din Pitesti- Prof. M Abrudeanu	Cercetari privind elaborarea si caracterizarea unor nanomateriale oxidice cu proprietati speciale	, 21.06.2008	03.12.2008. diplôme d'état roumain ;
5	Florina Simescu Lazar	<i>French -Romanian Coordination</i> Universitatea din Pitesti- Prof. M Abrudeanu <i>/Institut National de Sciences Appliquées Lyon- Prof Hassan Idrissi</i>	Élaboration des revêtements de phosphates de zinc sur armature à béton. Étude de leur comportement à la corrosion en milieu neutre et alcalin	29.04.2008 INSA Lyon	N° d'ordre : 08 ISAL 0019,, diplôme d'état français , diplôme d'état roumain
6	Mihaela Teaca	<i>French -Romanian Coordination:</i> Universitatea din Pitesti – Prof. M Abrudeanu <i>/Université de Metz – Prof Gerard Ferron</i>	Caractérisation expérimentale et modélisation de la déformation plastique des tôles métalliques	20.10.2009 Université de Metz	2.02.210 diplôme d'état roumain diplôme d'état roumaine - U Metz
7	Florina Constantin	<i>French -Romanian Coordination</i> Universitatea din Pitesti – Prof.M Abrudeanu <i>/Institutul National de Stiinte Aplicate din Lyon- Prof. JP Millet</i>	Studiul eficacitatii inhibitorilor de coroziune utilizati in sistemele de racire/ <i>Etude de l'efficacité d'inhibiteur de corrosion utilisés dans les liquides de refroidissement</i>	15.10.2011 la Universitatea din Pitesti	21.12.2011 diplôme d'état roumain si 15.11.2011 diplôme d'état français INSA Lyon
8	Tiberiu Meleg	Universitatea din Pitesti – Prof. M Abrudeanu	Coroziunea aliajelor nucleare in conditii de accident sever <i>/Corrosion des alliages nucléaires en conditions d'accident sévère.</i>	28.11 2011	Ordinul Nr.6697 din 21.12.2011

9	Claudiu Ionescu	<i>French -Romanian Coordination:</i> Universitatea din Pitesti – Prof. M Abrudeanu/Ecole Centrale Paris –pr. P Pontiaux	Caracterizarea mecanismelor de uzare prin tribocoroziune a unor aliaje utilizate in domeniul nuclear <i>Caractérisation des mécanismes d'usure par tribocorrosion d'alliages utilisés dans le domaine nucléaire</i>	03.10.2011 Universitatea din Pitesti 19.11.2012 la Ecole Centrale Paris	21.12.2012 Romania si 19.11.2012 Franta-Ecole Centrale Paris .
10	Constantin Bubulinca	<i>French -Romanian Coordination</i> Universitatea din Pitesti – Prof. M Abrudeanu/ <i>Université Blaise Pascale Clermont Ferrand- Prof. Michel Grediac</i>	Aplicarea termografiei in infrarosu pentru determinarea disiparii mecanice a aliajelor cu memoria formei Cu-Zn-Al	29.01.2013 - Universitatea din Pitesti	15.07.2014- România 18.02.2014- Franta – Université Balise Pascale Clermont Ferrand
11	Sanda Cristina Vulpe	Universitatea din Pitesti- Prof. M Abrudeanu	Cercetari privind comportarea termomecanica a unor aliaje cu continut înalt de nichel in vederea utilizarii in reactoarele de generatie IV	11.2013	05-2014 România
12	Nicoleta Radutoiu	<i>Cotutela fr-ro :</i> Universitatea din Pitesti – Prof. M Abrudeanu <i>/Institut National Polytechnique de Toulouse, ENIT- Prof. Jacques Alain Petit</i>	Caracterizarea si interpretarea la scara locala a comportamentului mecanic si la corozione a aliajului EN AW2024 in functie de tratamentul termic aplicat/ <i>Influence des traitements thermiques sur le comportement en corrosion a l'échelle locale de l'alliage d'aluminium en AW 2024</i>	3.07.2013 Ecole Nationale d'Ingenieurs de Trapes – INP Toulouse	28.09.2013 România Franta –InstitutNational olytechnique de Toulouse
13	Iulia Maria Dumitrescu	Universitatea din Pitesti – Prof.M Abrudeanu	Contribuții la studiul comportării matricei de combustibil nuclear în condiții de accident sever	19.12.2014	O.M. nr.3869 din 19.05.2015
14	Alexandru Ionut Nitu	Universitatea din Pitesti – Prof.M Abrudeanu	Contribuții privind studiul unor mecanisme de defectare întâlnite la materialele structurale utilizate în energetica nucleară	Mai 2018	

Pr. M Abrudeanu