



Curriculum vitae Europass	Inserați fotografia. (rubrică facultativă, vezi instrucțiunile) 
Informații personale	
Nume / Prenume	Pintilie Lucian
Adresă(e)	Serviciu: Atomistilor 405A, Magurele, Ilfov, 077125, Romania
Telefon(oane)	0213690170 (serviciu); 0723185411 (mobil)
Fax(uri)	0213690177 (serviciu)
E-mail(uri)	pintilie@infim.ro
Naționalitate(-tăți)	Roamana
Data nașterii	30.09.1959
Sex	masculin
Experiența profesională	
Perioada	Aprilie 2016-prezent
Funcția sau postul ocupat	Director Stiintific
Activități și responsabilități principale	Activitate de coordonare a departamentelor si laboratoarelor de cercetare din institut; coordonarea concursurilor de angajare pe posturi de cercetare; elaborarea strategiei INCDFM; reprezentarea INCDFM in relatia cu parteneri nationali si internationali, precum si in relatia cu autoritatile publice
Numele și adresa angajatorului	INCDFM (Institutul National de Cercetare-Dezvoltare pentru Fizica Materialelor), Atomistilor 405A, Magurele, 077125, Romania
Tipul activității sau sectorul de activitate	Cercetare-Dezvoltare-Inovare
Perioada	Ianuarie 2013-Aprilie 2016
Funcția sau postul ocupat	CS1, Sef de laborator
Activități și responsabilități principale	Activitate de cercetare (sinteza de materiale, masuratori, propuneri de proiecte, elaborarea de lucrari, propunerea de aplicatii; management de proiecte; management grup de cercetare)
Numele și adresa angajatorului	INCDFM (Institutul National de Cercetare-Dezvoltare pentru Fizica Materialelor), Atomistilor 405A, Magurele, 077125, Romania
Tipul activității sau sectorul de activitate	Cercetare-Dezvoltare-Inovare
Perioada	Decembrie 2008-Ianuarie 2013
Funcția sau postul ocupat	Director General INCDFM

Activități și responsabilități principale	Managementul institutului
Numele și adresa angajatorului	INCDFM (Institutul National de Cercetare-Dezvoltare pentru Fizica Materialelor), Atomistilor 405A, Magurele, 077125, Romania
Tipul activității sau sectorul de activitate	Management institutie de cercetare
Perioada	1987-2008
Funcția sau postul ocupat	ACS (1987-1990), CS (1990-1995), CS3 (1995-1998), CS2 (1998-2001), CS1 (2001-prezent) Sef de Laborator intre 1997 si 2004
Activități și responsabilități principale	Activitate de cercetare (executie probe, caracterizare, analiza date experimentale, redactare lucrari stiintifice, conducere de granturi si proiecte de cercetare); activitate organizatorica (ca sef de laborator); activitate administrativa
Numele și adresa angajatorului	INCDFM (Institutul National de Cercetare-Dezvoltare pentru Fizica Materialelor), Atomistilor 405A, Magurele, 077125, Romania
Tipul activității sau sectorul de activitate	Cercetare
Perioada	1984-1987
Funcția sau postul ocupat	Inginer fizician stagiar
Activități și responsabilități principale	Achizitii echipamente de cercetare si productie
Numele și adresa angajatorului	Combinatul Chimic Giurgiu
Tipul activității sau sectorul de activitate	Productie chimie
Educație și formare	
Perioada	2001-2007
Calificarea / diploma obținută	Stagii de lucru si burse post-doctorale
Disciplinele principale studiate / competențe profesionale dobândite	Fizica Starii Condensate; Stiinta materialelor; Fizica materialelor feroelectrice si multiferoice
Numele și tipul instituției de învățământ / furnizorului de formare	IKZ Berlin, Germania (2001-2002); Universitatea din Braga, Portugalia (2002-2003); Institutul Max Planck pentru Fizica Microstructurilor din Halle, Germania (2003-2007)
Nivelul în clasificarea națională sau internațională	ISCED 44-Physical sciences
Perioada	1990-1995
Calificarea / diploma obținută	Doctorat
Disciplinele principale studiate / competențe profesionale dobândite	Fizica Starii Condensate
Numele și tipul instituției de învățământ / furnizorului de formare	IFA Bucuresti

Nivelul în clasificarea națională sau internațională	ISCED 8-Doctoral or equivalent level									
Perioada	1979-1984									
Calificarea / diploma obținută	Licenta si master									
Disciplinele principale studiate / competențe profesionale dobândite	Fizica/Fizica tehnologica									
Numele și tipul instituției de învățământ / furnizorului de formare	Facultatea de Fizica, Universitatea Bucuresti									
Nivelul în clasificarea națională sau internațională	ISCED 7-Master or equivalent level									
Aptitudini și competențe personale										
Limba(i) maternă(e)	Romana									
Limba(i) străină(e) cunoscută(e)										
Autoevaluare	Înțelegere				Vorbire				Scriere	
<i>Nivel european (*)</i>	Ascultare		Citire		Participare la conversație		Discurs oral		Exprimare scrisă	
Limba Engleza	C1	Avansat	C1	Avansat	C1	Avansat	C1	Avansat	C1	Avansat
Limba Franceza	A2	Incepator	A2	Incepator	A1	Incepator	A1	Incepator	A1	Incepator
	(*) <i>Nivelul Cadrului European Comun de Referință Pentru Limbi Străine</i>									
Aptitudini și competențe artistice	-									

<p>Aptitudini și competențe de comunicare; participare in comisii si consilii consultative sau de evaluare</p>	<p>Munca de sef de laborator sau de manager de institut presupune comunicare atat pe orizontala cat si pe verticala. Participat la mai multe cursuri de management si comunicare in cercetare (2003-CIPRE; 2008-INA; 2009-Economix si Carroll School of Management). Abilitati de comunicare si de formare tineri cercetatori. 2008-prezent: membru in Consiliul Stiintific al INCDFM 2008-2013: membru in Consiliul de administratie la INCDFM 1997-2004 si 2008-prezent: membru in Comitetul de Directie al INCDFM 2010-2012, 2016-prezent: membru al Consiliului National de Atestare a Titlurilor, Diplomelor si Certificatelor Universitare (CNATDCU) , Comisia de Fizica 2010-prezent: membru in Biroul Executiv al Patronatului Roman din Cercetare-Proiectare (PRCP); ales presedinte al PRCP in 2022 2015: numit reprezentant al Romaniei in Programul ERA-NET RUS-PLUS, cu sediul la DLR Bonn, Germania 2010: Referent Office of Basic Energy Sciences, Department of Energy, USA 2011-2013: monitor proiecte FP7 2011-2017: Referent, Faculty of Engineering and Natural Sciences, Sabanci University, Istanbul, Turkey 2015: Referent, Euro-talents Program, CEA, France 2015-prezent: Referent, Executive Unit for Funding High Education, Research, Development and Innovation (UEFISCDI) 2013-2014, 2020: reprezentant al CC-CDI in cadrul exercitiului national de evaluare al INCDFM-urilor (desemnat pentru ICCF-Bucuresti, ICECHIM-Bucuresti si INSEMEX-Petrosani) 2017-2020: membru al Consiliului National al Cercetarii Stiintifice (CNCS)</p>
<p>Aptitudini și competențe organizatorice; participare la elaborarea de reglementari si lucrari specifice domeniului CDI</p>	<p>Abilitati de a organiza si conduce grupuri de oameni, dobandite ca director de proiect, sef de laborator, director general de institut. Director sau responsabil al echipelor de cercetare la mai multe proiecte nationale sau internationale (vezi lista proiecte).</p> <p>Participant la elaborarea urmatoarelor strategii: Strategia Nationala CDI 2014-2020, membru in panelul de Materiale Strategia NANOPROSPECT in domeniul nanotehnologiilor si nanomaterialelor-reprezentant al INCDFM in consortiu de elaborare a strategiei Studiul ESFRO privind evaluarea potentialului romanesc de cercetare in domeniul fizicii si elaborarea unei strategii privind colabararile internationale-reprezentant al INCDFM in consortiu de elaborare</p>
<p>Aptitudini și competențe tehnice (utilizare calculator, anumite tipuri de echipamente, mașini etc.)</p>	<p>Electronica (la nivel de incepator); mecanica, lacatuserie, sudura (auto-didact); utilizarea echipamentelor stiintifice de masura (curent, capacitate, etc.) Utilizator programe comerciale (Office, Origin, Mathcad, etc.)</p>

<p>Alte competențe și aptitudini</p>	<p>Premii si distinctii: 2000-Diploma de excelenta in cercetare acordata de ANSTI 2009-Premiul „Dragomir Hurmuzescu” al Academiei Romane 2010-Diploma de manager al anului acordata de ANCS</p> <p>Membri in colective redactionale, referent 2009, 2012, 2014, 2015: Guest Editor; Thin Solid Films, Elsevier, the Netherlands Referent la: Advanced Materials, Physical Review Letters, Physical Review B, ACS Advanced Materials and Interfaces, Acta Materialia, Applied Physics Letters, Thin Solid Films, Physica Status Solidi, Microelectronic Engineering, Chemistry of Materials, Materials Science and Engineering B, Journal of Materials Science, Journal of Crystal Growth, Optical Materials, si altele.</p> <p>Activitate didactica 2009-prezent: conducator de doctorate (8 doctorate finalizate, 4 doctoranzi inscrisi); profesor asociat la Scoala Doctorala a Facultatii de Fizica Bucuresti</p>
<p>Permis(e) de conducere</p>	<p>-</p>
<p>Informații suplimentare</p>	<p>Membri în colective de redacție sau comitete științifice ale revistelor /manifestărilor științifice/naționale și internaționale 2015-Co-presedinte al celei de a 8-a editii a Conferintei Internationale pentru Materiale Avansate (ROCAM), Bucuresti, Romania, 7-10 iulie; organizator al sectiunii 3: Thin Films and Nanostructures of Functional Materials (see http://rocam.unibuc.ro/rocam2015/index.php) 2014-Co-presedinte si organizator principal al conferintei internationale Electroceramics XIV, Bucuresti, Romania, 16-20 iunie (see http://www.electroceramics14.com/) 2012-Membri in comitetul de organizare al cele de a 7-a editii a Conferintei Internationale pentru Materiale Avansate (ROCAM), Brasov, Romania, 28-31 august, organizator al sectiunii 4: Thin Films of Multifunctional Materials for Advanced Applications (see http://rocam.unibuc.ro/rocam2012/index1.html) 2010-Organizator al workshopului „Materiale multifunctionale micro si nanostructurate: de la cercetare la aplicatii” in cadrul celei de a 2-a editii a conferintei „Diaspora în Cercetarea Științifică Românească și Învățământul Superior”, Bucuresti, 21-24 septembrie 2010 2009- Membri in comitetul de organizare al cele de a 7-a editii a Conferintei Internationale pentru Materiale Avansate (ROCAM), Brasov, Romania, 25-28 august; organizator al sectiunii 5: Advanced functional oxide materials: characterization and applications (see http://rocam.unibuc.ro/rocam2009/) Initiator si chair al International Wokshop on Materials Physics (IWMP) organizat anual de catre INCDFM. Sinteza activitate stiintifica: Peste 250 de lucrari publicate in jurnale si volume de conferinta; peste 4700 citari (fara auto-citari); indice h 37 (Web of Science); 37 (Scopus); 44 (Google Scholars) Autor sau co-autor la 14 cereri de brevet in diverse stadii, 5 brevete acordate</p>
<p>Anexe</p>	<p>Lista de proiecte, realizari importante, lista lectii invitate, lista lucrari, lista brevete</p>

2. Proiecte nationale si internationale, in calitate de director/responsabil

Programul/Proiectul	Funcția	Perioada	Bugetul administrat
SfP-971970-INOWATE “Integrated Optoelectronic Circuits for Infrared Wavelength Telecommunication”	Responsabil proiect partea Romana	1999-2004	250,000 RON
RELANSIN: Intelligent IR device for monitoring and controlling the particles in suspension in air and moisture in granular materials”	Director	2000 – 2002	150,000 RON
CERES: “Electronic processes in structures for detection of corpuscular and electromagnetic radiation” (Percol)	Director	2002-2004	270,000 RON
CERES: “Physical mechanisms of detection and associated measurements methods for the IR domain”	Director	2002 – 2004	230.000 RON
CERES: “Polar phenomena and charge transport in micro and nanostructured ferroelectric thin films” (POLTRANSF)	Director	2004-2006	110,000 RON
CEEX: “Complex phenomena and size effects in nanostructured thin films with ferroelectric and ferroic properties” (DINAFER)- DINAFER-2-CEEX-06-11-44	Director	2006 –2008	1,500,000 RON
IFA-CEA: “Investigation of metal-ferroelectric interface at macro and nanoscale”	Director	2010-2013	600,000 RON
FP7: “Interfacing oxides” (IFOX)	Responsabil partea Romana	2010-2015	2,400,000 RON
Ideas-PCCE: „ Effect of interfaces on charge transport in ferroic/multiferroic heterostructures”	Director	2012-2015	7,000,000 RON
IFA-CEA: “Pyroelectricity in PZT thin films and multilayers”	Director	2014-2016	400,000 RON
Partnership: “Optimized pyroelectric materials through the polarization gradient concept and experimental model for a pyroelectric detector with potential for applications in monitoring high power/energy lasers.”	Director	2014-2016	1,200,000 RON
M-ERA NET: “Novel generation of pyroelectric detectors based on polar semiconductors”	Director	2015-2017	1,100,000 RON
Proiect PFE: Dezvoltare Institutionala pentru Cercetare de Excelenta in Domeniul Materialelor Avansate”	Director	2018-2020	6,900,000 RON
Proiect POC-G: „Materiale multifunctionale inteligente pentru aplicatii de inalta tehnologie” (contract 54/2016)	Director	2016-2022	13,500,000 RON
Proiect PCCF: „Controlul proprietatilor electronice in heterostructuri bazate pe perovskite feroelectrici: de la teorie la	Director	2018-2022	8,500,000 RON

aplicatii/CEPROFER/PN-III-P4-ID-PCCF-2016-0047” (Contract 16/2018)			
Proiect H2020: „3εFERRO Energy efficient Embedded Non-volatile Memory and Logic based on Ferroelectric Hf(Zr)O ₂ ”	Responsabil partea Romana	2018-2021	~300,000 EUR
Proiect PFE: Intarirea capacitatii institutionale pentru cercetare de excelenta in domeniul materialelor avansate functionale	Director	2021-2024	7,200,000 RON
Program Nucleu INCDFM	Director	2016-2017; 2018; 2019-2022	Peste 150,000,000 RON

Lista lectiilor invitate

1. *Pintilie, L.* and *M. Alexe*.

Pb-based ferroelectrics: Insulators or semiconductors?

17th International Symposium on Integrated Ferroelectrics (ISIF 2005), Shanghai, China, 19 - 22.04.2005.

2. *Alexe, M., M.-W. Chu, L. Pintilie,* and *D. Hesse*.

Interface effects in nanoscale ferroelectric structures.

17th International Symposium on Integrated Ferroelectrics (ISIF 2005), Shanghai, China, 19 - 22.04.2005.

3. *Alexe, M., L. Pintilie,* and *D. Hesse*.

The role of interfaces in nanosize ferroelectric oxides.

Fruhjahrstagung des Arbeitskreises Festkorperphysik der Deutschen Physikalischen Gesellschaft, Berlin, Germany, 04. - 09.03.2005.

4. *Pintilie, L. (presenting author), M. Lisca,* and *M. Alexe*.

Epitaxial quality PZT: Insulator or semiconductor?

6th International Balkan Workshop on Applied Physics, Constanta, Romania. 05 - 07.07.2005.

5. *Pintilie, L. (presenting author), I. Vrejoiu, G. Le Rhun, D. Hesse,* and *M. Alexe*.

Electrical characterization of ferroelectric thin films: Intrinsic versus extrinsic contributions to material properties.

European Materials Research Society Spring Meeting (E-MRS), Nice, France, 29.05. - 2.06.2006.

6. *Alexe, M., L. Pintilie, I. Vrejoiu, G. Le Rhun, D. Hesse,* and *U. Gosele*.

Role of interfaces and extended defects in perovskite thin films.

European Materials Research Society Spring Meeting (E-MRS), Nice, France. 29.05. - 02.06.2006.

7. *Pintilie, L., I. Vrejoiu, G. Le Rhun, D. Hesse, M. Alexe,* and *U. Gosele*.

Current-voltage characteristics of epitaxial Pb(Zr,Ti)O₃ films and the influence of polarization of the Schottky barrier.

18th International Symposium on Integrated Ferroelectrics, Honolulu, USA, 23. - 28.04.2006.

8. *Pintilie, L. (presenting author), I. Vrejoiu, M. Alexe, D. Hesse,* and *U. Gosele*.

Effect of metal electrodes on the electric properties of ferroelectric thin films.

8th International Balkan Workshop of Applied Physics, Constanta, Romania, 05. - 07.07.2007.

9. *Le Rhun, G., I. Vrejoiu, L. Pintilie, D. Hesse, M. Alexe,* and *U. Gosele*.

Ferroelastic domain wall mobility in ferroelectric thin films.

8th European Conference on Applications of Polar Dielectrics, Metz, France. 05. - 08.09.2006.

10. *Alexe, M., L. Pintilie, I. Vrejoiu, D. Hesse, G. Le Rhun, I. B. Misirlioglu,* and *U. Gosele*.

Electronic properties of all-oxide metal-ferroelectric interfaces.

Materials Research Society Spring Meeting (MRS), San Francisco, USA. 10. - 13.04.2007.

11. Hesse, D., I. Vrejoiu, D. H. Bao, K. Boldyreva, L. Pintilie, and M. Alexe.

Microstructure-property relations of epitaxial ferroelectric oxide thin films, superlattices, and nanostructure arrays prepared by PLD.

9th International Conference on Laser Ablation (COLA 2007), Tenerife, Spain. 24. - 28.09.2007.

12. Lucian Pintilie

ADVANCED ELECTRICAL CHARACTERIZATION OF FERROELECTRIC THIN FILMS: FACTS AND ARTIFACTS

9th International Balkan Workshop on Applied Physics, Constanta, Romania, 7-9.07.2008

13. L. Pintilie (presenting author), V. Stancu, C. Dragoi, L. Trupina, M. Vlaicu

Ferroelectric multilayers

4th International Conference on Materials Science and Condensed Matter Physics, Chisinau, Moldova, 23-26.09.2008

14. L. Pintilie

Advanced electrical characterization of ferroelectric thin films and multilayers.

EMRS Spring Meeting, Strasbourg, France; Symposium J: Synthesis, Processing and Characterization of Nanoscale Functional Oxide Films, 9-12 June 2009.

15. L. Pintilie

Photovoltaic effect in PZT based oxide structures.

International Symposium on Integrated Functionalities, Hong-Kong, China, 18-21 of June, 2012.

16. L. Pintilie

Electric properties of epitaxial ferroelectric films with perovskite structure and different metals as top electrodes.

E-MRS Spring Meeting, Strasbourg, France; Symposium O: Synthesis, processing and characterization of nanoscale multi functional oxide films IV, 27-31 May, 2013.

17. L. Pintilie

The (electrode) interface effect on the properties of thin films and multilayers with ferroelectric properties.

4th International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N), Corfu, Greece, 16-20 June, 2013.

18. Lucian Pintilie (presenting author), Ioana Pintilie, Cristian Mihail Teodorescu, Corneliu Ghica, Luminita Hrib, Cristina Chirila, Lucian Trupina, Andra Georgia Boni, Alin Iuga, Raluca Negrea, Iuliana Pasuk, Mihaela Botea, Lucian Dragos Filip, Victor Kuncser, Gabriel Schinteie:

Interfaces in Epitaxial Structures Based on Oxide Ferroelectrics.

2014 SUSTAINABLE INDUSTRIAL PROCESSING SUMMIT AND EXHIBITION SHECHTMAN INTERNATIONAL SYMPOSIUM, Cancun, Mexic, 29 June-4 July 2014.

19. L. Pintilie

Photovoltaic and Pyroelectric properties of ferroelectric thin films.

EMRS Fall Meeting, Warsaw, Poland; Symposium V: Functional perovskite systems, 15-18 September 2014.

20. L. Pintilie (presenting author), I. Pintilie, C. M. Teodorescu, C. Ghica, I. Pasuk, G. A. Boni, C. Chirila, L. M. Hrib, L. Trupina, R. Negrea, M. Stefan, D. Ghica, V. Stancu

Polarization controlled phenomena in ferroelectric thin films.

2015 Joint IEEE International Symposium on Applications of Ferroelectric (ISAF), International Symposium on Integrated Functionalities (ISIF), and Piezoresponse Force Microscopy Workshop (PFM) (ISAF-ISIF-PFM 2015), Singapore, 24-27 May 2015.

21. L. Pintilie

Polarization driven effects and the role of interfaces in ferroelectric thin films and heterostructures

Conference for Young Scientists in Ceramics, SM-2015
Faculty of Technology, Novi Sad, Serbia, 21-24 octombrie 2015

22. L. Pintilie (presenting author), I. Pintilie, M. Botea, I. Pasuk, L. Hrib, G. Boni, V. Stancu

Pyroelectric properties in polar thin films

International Symposium on Dielectric Materials and Applications (ISyDMA'2016), Rabat-Kenitra, Maroc, 4-7 May 2016

23. *L. Pintilie*

Polarization and interfaces driven effects in ferroelectric/multiferroic heterostructures

International Conference on Technologically Advanced Materials & Asian Meeting on Ferroelectricity (ICTAM-AMF10), New Delhi, India, November 7-11, 2016

24. *L. Pintilie*

Recent developments in the field of epitaxial ferroelectrics

18th International Balkan Workshop on Applied Physics and Materials Science- IBWAP 2018" Constanta, 10 – 13 Iulie 2018

25. *C. Chirila, A. Boni, M. Botea, L. Hrib, L. Trupina, I. Pasuk, R. Negrea, I. Pintilie, L. Pintilie, G.Le Rhun*

Epitaxial growth of ferroelectric thin films and their potential applications

EMS Meeting on Epitaxy, 18-23 Iunie 2018, Viena, Austria

26. *Andra Georgia Boni, Cristina Chirila, Luminita Hrib, Lucian Dragos Filip, Lucian Trupina, Iuliana Pasuk, Raluca Negrea, Lucian Pintilie (presenting author)*

Recent developments in the field of ferroelectrics for electronic applications

Conferinta Internationala E-MRS Fall Meeting 2018

27. *L. Pintilie*

Recent results in the field of epitaxial ferroelectrics

IV. International Ceramic, Glass, Porcelain, Enamel, Glaze and Pigment Congress-SERES 2018, Eskisehir, 10-12 octombrie, Turcia

28. *Georgia A. Boni, Lucian D. Filip, Cristina Chirila, Alin Iuga, I. Pasuk, Luminita Hrib, Lucian Trupina, Ioana Pintilie, Lucian Pintilie*

New functionalities and findings in epitaxial ferroelectric structures

EMN Epitaxy, Amsterdam, June 17th -21st , 2019, Holland

29. *Lucian Pintilie (presenting author), Andra Georgia Boni, Cristina Chirila, Luminita Hrib, Lucian Trupina, Lucian Dragos Filip*

About hysteresis, dielectric constant and negative capacitance in PZT capacitors

E-MRS 2019 Conference, May 26th-June 1st 2019, Nice, France

30. *L. Pintilie (presenting author), A. G. Boni, C. Chirila, L. Hrib, L.D. Filip, N. Plugaru, I. Pasuk, L. Trupina, R. Negrea, C. Istrate, L. Balescu, C. Besleaga, G. Stan, I. Pintilie*

Recent results and new functionalities in ferroelectric based structures

SIPS Conference 2019, October 23rd -27th, 2019, Pafos, Cipru

31. *L. Pintilie (presenting author), G. A. Boni, L. D. Filip, C. Chirilă, L. Hrib, V. Stancu, R. Negrea, C. Istrate, L. Trupină, I. Paşuk, I. Pintilie*

Recent Results Regarding the Fundamental Properties of Epitaxial PZT Ferroelectrics

Joint conference of the IEEE International Frequency Control Symposium and IEEE International Symposium on Applications of Ferroelectrics. On-line, July 2020

32. *L. Pintilie*

Homogeneous versus non-homogeneous switching in perovskite ferroelectrics: can charge injection trigger the switching?

EMRS Spring Meeting, 31 mai-3 iunie 2022, on-line

33. *L. Pintilie*

Abnormal behavior in epitaxial ferroelectric PZT p-n homojunctions

Global Experts Meet on Condensed Matter Physics, 15-18 iunie 2022, Roma, Italia

34. *L. Pintilie*

Homogeneous versus non-homogeneous switching in perovskite ferroelectrics: can charge injection trigger the switching?

A 3-a editie a AMSE, 211-26 iulie 2022, Opatija, Croatia (prezentare on-line)

Publicatii (altele decat lucrari ISI, lucrari non-ISI, brevete, prezentate in liste separate):

Capitole de carti

1. L. Pintilie

Capitolul 5: **Charge Transport in Ferroelectric Thin Films** (downloaded over 4800 times); in "Ferroelectrics - Physical Effects", book edited by Mickaël Lallart, ISBN 978-953-307-453-5-published by InTech in 2011

2. I. Pintilie, L. Pintilie, L. D. Filip, L. C. Nistor, C. Ghica

Capitolul: **Oxide Thin Films and Nano-heterostructures for Microelectronics (MOS Structures, Ferroelectric Materials and Multiferroic Heterostructures)**; in "Size Effects in Nanostructures: Basics and Applications", Editors: Victor Kuncser, Lucica Miu, ISBN: 978-3-662-44478-8 (Print) 978-3-662-44479-5 (Online)-published by Springer Berlin Heidelberg in 2014

3. L. Pintilie, I. Pintilie, C.M. Teodorescu, C. Ghica, L.M. Hrib, C. Chirila, L. Trupina, A.G. Boni, A. Iuga, R. Negrea, I. Pasuk, M. Botea, L.D. Filip, V. Kuncser, G. Schinteie

Capitolul: **Interfaces in epitaxial structures based on oxide ferroelectrics**; in "Composite, Ceramic, Quasi-Crystals, Nanomaterials, High Temperature Protection Coatings, Editor: Florian Kongoli, ISBN 978-1-987820-11-9-published FLOGEN, Quebec/Wilmington, Canada/USA 2014

1. Adelina-Carmen Ianculescu, Ioana Pintilie, Lucian Pintilie

Capitolul: **Compositionally-graded ferroelectric ceramics and multi-layers for electronic and sensing applications**; in „Magnetic, Ferroelectric, and Multiferroic Metal Oxides” (Metal Oxide series), editor Biljana Stojanovici, ISBN 978-0-12-811180-2-published by Elsevier Inc. All in 2018.

5. Andra Georgia Boni, Cristina Florentina Chirila, Raluca Negrea, Corneliu Ghica, Iuliana Pasuk, Ioana Pintilie and Lucian Pintilie

Chapter: Electrical properties of epitaxial ferroelectric structures; in „Epitaxy”, editor Miao Zhong, ISBN: 978-953-51-3890-7-published by IntechOpen, London, UK, 2018.

Selectie lucraru ultimii 15 ani

Nr	Titlul	Jurnal	Autori	FI	AIS	DOI	Q-JIF	Q-JCI	Citari ISI
1	BaTiO ₃ nanocubes-Gelatin composites for piezoelectric harvesting: Modeling and experimental study	CERAMICS INTERNATIONAL, 48 , pp+25880-25893 (2022)	Ciomaga, CE; Horchidan, N; Padurariu, L; Stirbu, RS; Tiron, V; Tufescu, FM; Topala, I; Condurache, O; Botea, M; Pintilie, I; Pintilie, L; Rotaru, A; Caruntu, G; Mitoseriu, L	5.532	0.552	10.1016/j.ceramint.2022.05.264	Q1	Q1	0
2	Memory Window Enhancement in Antiferroelectric RAM by Hf Doping in ZrO ₂	IEEE ELECTRONIC DEVICE LETTERS, 43 , pp+1447-1450 (2022)	Lorenzo, PD; Li, SR; Pintilie, L; Istrate, CM; Mikolajick, T; Schroeder, U	4.816	0.931	10.1109/LED.2022.3189159	Q1	Q1	0
3	Ferroelectricity modulates polaronic coupling at multiferroic interfaces	COMMUNICATIONS PHYSICS, 5 ,209 (2022)	Husanu, MA; Popescu, DG; Bisti, F; Hrib, LM; Filip, LD; Pasuk, I; Negrea, R; Istrate, MC; Lev, L; Schmitt, T; Pintilie, L; Mishchenko, A; Teodorescu, CM; Strocov, VN	6.497	2.484	10.1038/s42005-022-00983-3	Q1	Q1	0
4	Metastable ferroelectricity driven by depolarization fields in ultrathin Hf _{0.5} Zr _{0.5} O ₂	COMMUNICATIONS PHYSICS, 5 ,178 (2022)	Siannas, N; Zacharaki, C; Tsipas, P; Chaitoglou, S; Begon-Lours, L; Istrate, C; Pintilie, L; Dimoulas, A	6.497	2.484	10.1038/s42005-022-00951-x	Q1	Q1	0
5	ZnS stacking order influence on the formation of Zn-poor and Zn-rich Cu ₂ ZnSnS ₄ phase	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 33 , pp+11989-12001 (2022)	Zaki, MY; El Khouja, O; Nouneh, K; Touhami, ME; Matei, E; Azmi, S; Rusu, MI; Grigorescu, CEA; Briche, S; Boutamart, M; Badica, P; Burdusel, M; Secu, M; Pintilie, L; Galca, AC	2.779	0.278	10.1007/s10854-022-08160-6	Q2	Q2	1
6	Negative Capacitance and Switching Dynamics Control Via Non-Ferroelectric Elements	ACS APPLIED ENERGY MATERIALS, 5 , pp+3307-3318 (2022)	Boni, AG; Patru, R; Filip, LD; Chirila, C; Pasuk, I; Pintilie, I; Pintilie, L	6.959	1.207	10.1021/acsaem.1c03890	Q1	Q1	0

7	Increasing Permittivity and Mechanical Harvesting Response of PVDF-Based Flexible Composites by Using Ag Nanoparticles onto BaTiO ₃ Nanofillers	NANOMATERIALS, 12 , 934 (2022)	Horchidan, N; Ciomaga, CE; Curecheriu, LP; Stoian, G; Botea, M; Florea, M; Maraloiu, VA; Pintilie, L; Tufescu, FM; Tiron, V; Rotaru, A; Mitoseriu, L	5.719	0.738	10.3390/na no1206093 4	Q1	Q1	2
8	Controlling polarization direction in epitaxial Pb(Zr _{0.2} Ti _{0.8})O ₃ films through Nb (n-type) and Fe (p-type) doping	SCIENTIFIC REPORTS, 12 , 755 (2022)	Chirila, CF; Stancu, V; Boni, GA; Pasuk, I; Trupina, L; Filip, LD; Radu, C; Pintilie, I; Pintilie, L	4.997	1.208	10.1038/s4 1598-022- 04802-1	Q2	Q1	2
9	Secondary phases and their influence on optical and electrical properties of electrodeposited Cu ₂ FeSnS ₄ films	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, 127 , 887 (2021)	El Khouja, O; Galca, AC; Zaki, MY; Talbi, A; Ahmoum, H; Nouneh, K; Touhami, ME; Taibi, M; Matei, E; Enculescu, M; Pintilie, L	2.983	0.328	10.1007/s0 0339-021- 05038-y	Q2	Q3	3
10	Electro-active properties of nanostructured films of cytosine and guanine nucleobases	NANOTECHNOLOGY, 32 , 415702 (2021)	Socol, M; Trupina, L; Galca, AC; Chirila, C; Stan, GE; Vlaicu, AM; Stanciu, AE; Boni, AG; Botea, M; Stanculescu, A; Pintilie, L; Borca, B	3.953	0.584	10.1088/13 61- 6528/ac10e 4	Q2	Q2	1
11	Tetragonal-Cubic Phase Transition and Low-Field Dielectric Properties of CH ₃ NH ₃ PbI ₃ Crystals	MATERIALS, 14 , 4215 (2021)	Patru, RE; Khassaf, H; Pasuk, I; Botea, M; Trupina, L; Ganea, CP; Pintilie, L; Pintilie, I	3.748	0.541	10.3390/ma 14154215	Q1	Q1	1
12	Homogeneous versus Inhomogeneous Polarization Switching in PZT Thin Films: Impact of the Structural Quality and Correlation to the Negative Capacitance Effect	NANOMATERIALS, 11 , 2124 (2021)	Pintilie, L; Boni, GA; Chirila, CF; Stancu, V; Trupina, L; Istrate, CM; Radu, C; Pintilie, I	5.719	0.738	10.3390/na no1108212 4	Q1	Q1	1
13	Structural, functional properties and enhanced thermal stability of bulk graded (Ba,Sr)TiO ₃ structures obtained by spark-plasma sintering (vol 12, pg 2085, 2021)	JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T, 13 , pp+1323-1323 (2021)	Botea, M; Pintilie, I; Surdu, VA; Stanciu, CA; Trusca, RD; Vasile, BS; Patru, R; Udrea, M; Ianculescu, AC; Pintilie, L	6.267	0.745	10.1016/j.j mrt.2021.06 .001	Q1	Q1	0
14	Accidental Impurities in Epitaxial Pb(Zr _{0.2} Ti _{0.8})O ₃ Thin Films Grown by Pulsed Laser Deposition and Their Impact on the Macroscopic Electric Properties	NANOMATERIALS, 11 , 1177 (2021)	Boni, GA; Chirila, CF; Stancu, V; Amarande, L; Pasuk, I; Trupina, L; Istrate, CM; Radu, C; Tomulescu, A; Neatu, S; Pintilie, I; Pintilie, L	5.719	0.738	10.3390/na no1105117 7	Q1	Q1	4
15	Structural Details of BaTiO ₃ Nano-Powders Deduced from the Anisotropic XRD Peak Broadening	NANOMATERIALS, 11 , 1121 (2021)	Pasuk, I; Neatu, F; Neatu, S; Florea, M; Istrate, CM; Pintilie, I; Pintilie, L	5.719	0.738	10.3390/na no1105112 1	Q1	Q1	7
16	Structural, functional properties and enhanced thermal stability of bulk graded (Ba,Sr)TiO ₃ structures obtained by spark-plasma sintering	JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T, 12 , pp+2085-2103 (2021)	Botea, M; Pintilie, I; Surdu, VA; Stanciu, CA; Trusca, RD; Vasile, BS; Patru, R; Ianculescu, AC; Pintilie, L	6.267	0.745	10.1016/j.j mrt.2021.04 .011	Q1	Q1	1
17	Impact of Iridium Oxide Electrodes on the Ferroelectric Phase of Thin Hf _{0.5} Zr _{0.5} O ₂ Films	PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS, 15 , 2100012 (2021)	Mittmann, T; Szyjka, T; Alex, H; Istrate, MC; Lomenzo, PD; Baumgarten, L; Muller, M; Jones, JL; Pintilie, L; Mikolajick, T; Schroeder, U	3.277	0.637	10.1002/ps sr.2021000 12	Q2	Q2	11
18	Negative capacitance in epitaxial ferroelectric capacitors evidenced by dynamic dielectric	MATERIALS TODAY COMMUNICATIONS, 26 , 102076 (2021)	Boni, GA; Chirila, C; Filip, LD; Pintilie, I; Pintilie, L	3.662	0.500	10.1016/j.m tcomm.202 1.102076	Q3	Q2	1

	characterization								
19	Structural, morphological and optical properties of Cu-Fe-Sn-S thin films prepared by electrodeposition at fixed applied potential	THIN SOLID FILMS, 721 ,138547 (2021)	El Khouja, O; Galca, AC; Nouneh, K; Zaki, MY; Touhami, ME; Taibi, M; Matei, E; Negri, CC; Enculescu, M; Pintilie, L	2.358	0.326	10.1016/j.tsf.2021.138547	Q3	Q3	6
20	Effect of strain and stoichiometry on the ferroelectric and pyroelectric properties of the epitaxial Pb(Zr _{0.2} Ti _{0.8})O ₃ films deposited on Si wafers	MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, 266 ,115042 (2021)	Chirila, C; Boni, GA; Filip, LD; Husanu, M; Neatu, S; Istrate, CM; Le Rhun, G; Vilquin, B; Trupina, L; Pasuk, I; Botea, M; Pintilie, I; Pintilie, L	3.407	0.544	10.1016/j.mseb.2021.115042	Q2	Q2	2
21	The Role of Interface Defect States in n- and p-Type Ge Metal-Ferroelectric-Semiconductor Structures with Hf _{0.5} Zr _{0.5} O ₂ Ferroelectric	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, 218 ,2000500 (2021)	Boni, GA; Istrate, CM; Zacharaki, C; Tsipas, P; Chaitoglou, S; Evangelou, EK; Dimoulas, A; Pintilie, I; Pintilie, L	2.170	0.360	10.1002/psasa.202000500	Q3	Q3	1
22	Polarization Switching and Negative Capacitance in Epitaxial PbZr _{0.2} Ti _{0.8} O ₃ Thin Films	PHYSICAL REVIEW APPLIED, 14 ,014080 (2020)	Pintilie, L; Boni, GA; Chirila, C; Hrib, L; Trupina, L; Filip, LD; Pintilie, I	4.985	1.633	10.1103/PhysRevApplied.14.014080	Q1	Q1	7
23	Influence of doping the inorganic cation with Eu or Sb on the properties of perovskite films	PHYSICA SCRIPTA, 95 ,075707 (2020)	Stancu, V; Leonat, LN; Tomulescu, AG; Derbali, S; Pintilie, L; Besleaga, C; Galca, AC; Neatu, F; Neatu, T; Florea, M; Pintilie, I	2.487	0.520	10.1088/1402-4896/ab90be	Q2	Q2	3
24	Estimation of the pyroelectric coefficient for ceramic Pb(Zr, Ti)O ₃ samples: Comparison of the results obtained by two easy to implement methods	INFRARED PHYSICS & TECHNOLOGY, 106 ,103269 (2020)	Pintilie, L; Iuga, A; Stancu, V; Botea, M	2.638	0.449	10.1016/j.infrared.2020.103269	Q2	Q2	3
25	(Ba,Sr)TiO ₃ solid solutions sintered from sol-gel derived powders: An insight into the composition and temperature dependent dielectric behavior	CERAMICS INTERNATIONAL, 46 ,pp+4180-4190 (2020)	Patru, RE; Ganea, CP; Stanciu, CA; Surdu, VA; Trusca, R; Ianculescu, AC; Pintilie, I; Pintilie, L	4.527	0.545	10.1016/j.ceramint.2019.10.136	Q1	Q1	3
26	Resistance hysteresis correlated with synchrotron radiation surface studies in atomic sp ² layers of carbon synthesized on ferroelectric (001) lead zirconate titanate in an ultrahigh vacuum	RSC ADVANCES, 10 ,pp+1522-1534 (2020)	Apostol, NG; Lizzit, D; Lungu, GA; Lacovig, P; Chirila, CF; Pintilie, L; Lizzit, S; Teodorescu, CM	3.361	0.525	10.1039/c9ra09131a	Q2	Q2	4
27	Designing functional ferroelectric interfaces from first-principles: dipoles and band bending at oxide heterojunctions	NEW JOURNAL OF PHYSICS, 21 ,113005 (2019)	Dorin, R; Filip, LD; Pintilie, L; Butler, KT; Plugaru, N	3.539	1.438	10.1088/1367-2630/ab4d8b	Q1	Q1	7
28	Low value for the static background dielectric constant in epitaxial PZT thin films	SCIENTIFIC REPORTS, 9 ,14698 (2019)	Boni, GA; Chirila, CF; Hrib, L; Negrea, R; Filip, LD; Pintilie, I; Pintilie, L	3.998	1.261	10.1038/s41598-019-51312-8	Q1	Q1	7
29	Reticulated Mesoporous TiO ₂ Scaffold, Fabricated by Spray Coating, for Large-Area Perovskite Solar Cells	ENERGY TECHNOLOGY, 8 ,1900922 (2020)	Tomulescu, AG; Stancu, V; Besleaga, C; Enculescu, M; Nemnes, GA; Florea, M; Dumitru, V; Pintilie, L; Pintilie, I; Leonat, L	3.631	0.665	10.1002/ente.201900922	Q3	Q3	11
30	Memcomputing and Nondestructive Reading in	PHYSICAL REVIEW APPLIED, 12 ,024053	Boni, GA; Filip, LD; Chirila, C; Iuga, A; Pasuk, I; Hrib, L;	4.194	1.642	10.1103/PhysRevAppli	Q1	Q1	4

	Functional Ferroelectric Heterostructures	(2019)	Trupina, L; Pintilie, I; Pintilie, L			ed.12.024053			
31	Dramatic impact of pressure and annealing temperature on the properties of sputtered ferroelectric HZO layers	APL MATERIALS,7,081109 (2019)	Bouaziz, J; Romeo, PR; Baboux, N; Negrea, R; Pintilie, L; Vilquin, B	3.819	1.199	10.1063/1.5110894	Q1	Q1	11
32	Structural and optical properties of ZnO thin films grown by rapid atmospheric mist chemical vapor technique	OPTICAL AND QUANTUM ELECTRONICS,51,210 (2019)	Derbali, S; Nouneh, K; Galca, AC; Touhami, ME; Secu, M; Matei, E; Leonat, LN; Pintilie, L; El Harfaoui, N; Fahoume, M	1.842	0.223	10.1007/s11082-019-1937-2	Q3	Q2	6
33	Impact on Ferroelectricity and Band Alignment of Gradually Grown Au on BaTiO3	PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS,13,1900077 (2019)	Popescu, DG; Husanu, MA; Chirila, C; Pintilie, L; Teodorescu, CM	2.291	0.679	10.1002/psr.201900077	Q2	Q2	7
34	Polarization branches and optimization calculation strategy applied to ABO(3) ferroelectrics	MODELLING AND SIMULATION IN MATERIALS SCIENCE AND ENGINEERING,27,045008 (2019)	Filip, LD; Plugaru, N; Pintilie, L	1.874	0.592	10.1088/1361-651X/ab146e	Q3	Q3	4
35	Unveiling the double-well energy landscape in a ferroelectric layer	NATURE,565, pp+464-+ (2019)	Hoffmann, M; Fengler, FPG; Herzig, M; Mittmann, T; Max, B; Schroeder, U; Negrea, R; Pintilie, L; Slesazek, S; Mikolajick, T	42.779	21.917	10.1038/s41586-018-0854-z	Q1	Q1	212
36	Ferroelectric Field Effect Transistors Based on PZT and IGZO	IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY,7, pp+268-275 (2019)	Besleaga, C; Radu, R; Balescu, LM; Stancu, V; Costas, A; Dumitru, V; Stan, G; Pintilie, L	2.555	0.670	10.1109/JEEDS.2019.2895367	Q2	Q2	14
37	Room temperature ferromagnetism and its correlation to ferroelectricity of manganese embedded in lead zirco-titanate	THIN SOLID FILMS,669, pp+440-449 (2019)	Bucur, IC; Apostol, NG; Abramiuc, LE; Tanase, LC; Tache, CA; Lungu, GA; Costescu, RM; Chirila, CF; Trupina, L; Pintilie, L; Teodorescu, CM	2.030	0.329	10.1016/j.tsf.2018.11.018	Q3	Q2	2
38	Comparison between dielectric and pyroelectric properties of PZFT and BST type ceramics	PROCESSING AND APPLICATION OF CERAMICS,13, pp+269-276 (2019)	Stancu, V; Amarande, L; Botea, M; Iuga, A; Leonat, LN; Tomulescu, AG; Cioangher, M; Balescu, LM; Pintilie, L	0.968	0.174	10.2298/PAC1903269S	Q3	Q3	3
39	How measurement protocols influence the dynamic J-V characteristics of perovskite solar cells: Theory and experiment	SOLAR ENERGY,173, pp+976-983 (2018)	Nemnes, GA; Besleaga, C; Tomulescu, AG; Palici, A; Pintilie, L; Manolescu, A; Pintilie, I	4.674	0.785	10.1016/j.splener.2018.08.033	Q1	Q2	45
40	Polarization Orientation in Lead Zirconate Titanate (001) Thin Films Driven by the Interface with the Substrate	PHYSICAL REVIEW APPLIED,10,034020 (2018)	Tanase, LC; Abramiuc, LE; Popescu, DG; Trandafir, AM; Apostol, NG; Bucur, IC; Hrib, L; Pintilie, L; Pasuk, I; Trupina, L; Teodorescu, CM	4.532	1.832	10.1103/PhysRevApplied.10.034020	Q1	Q1	23
41	Triggering surface ferroelectric order in Pb(Zr, Ti)O-3(001) by deposition of platinum	APPLIED SURFACE SCIENCE,432, pp+27-33 (2018)	Bucur, IC; Tanase, LC; Abramiuc, LE; Lungu, GA; Chirila, C; Trupina, L; Apostol, NG; Costescu, RM; Negrea, RF; Pintilie, L; Teodorescu, CM	5.155	0.671	10.1016/j.apsusc.2017.04.238	Q1	Q1	6
42	The Influence of the Relaxation Time on the Dynamic Hysteresis in Perovskite Solar Cells	MATHEMATICAL MODELING AND COMPUTATIONAL PHYSICS 2017 (MMCP 2017),173,03017 (2018)	Palici, A; Nemnes, GA; Besleaga, C; Pintilie, L; Anghel, DV; Pintilie, I; Manolescu, A	not available	not available	10.1051/epjconf/201817303017	not available	not available	4
43	Multiple polarization states in symmetric ferroelectric	NANOSCALE,9, pp+19271-19278 (2017)	Boni, GA; Filip, LD; Chirila, C; Pasuk, I; Negrea, R; Pintilie, I;	7.233	1.704	10.1039/c7nr06354g	Q1	Q1	21

	heterostructures for multi-bit non-volatile memories		Pintilie, L							
44	Steplike Switching in Symmetric PbZr _{0.2} Ti _{0.8} O ₃ /CoFeO ₄ /PbZr _{0.2} Ti _{0.8} O ₃ Heterostructures for Multistate Ferroelectric Memory	PHYSICAL REVIEW APPLIED, 8 , 034035 (2017)	Boni, AG; Chirila, C; Pasuk, I; Negrea, R; Pintilie, I; Pintilie, L	4.782	2.124	10.1103/PhysRevApplied.8.034035	Q1	Q1	12	
45	Low-energy electron diffraction from ferroelectric surfaces: Dead layers and surface dipoles in clean Pb(Zr, Ti)O-3(001)	PHYSICAL REVIEW B, 96 , 115438 (2017)	Teodorescu, CM; Pintilie, L; Apostol, NG; Costescu, RM; Lungu, GA; Hrib, L; Trupina, L; Tanase, LC; Bucur, IC; Bocirnea, AE	3.813	1.142	10.1103/PhysRevB.96.115438	N/A	Q1	8	
46	Polarization landscape effects in soft X-ray-induced surface chemical decomposition of lead zirconate, evidenced by photoelectron spectroscopy	NANOSCALE, 9 , pp+11055-11067 (2017)	Abramiuc, LE; Tanase, LC; Barinov, A; Apostol, NG; Chirila, C; Trupina, L; Pintilie, L; Teodorescu, CM	7.233	1.704	10.1039/c7nr03003g	Q1	Q1	10	
47	Magnetocapacitance in La _{0.7} Sr _{0.3} MnO ₃ /Pb(Zr _{0.2} Ti _{0.8})O-3/La _{0.7} Sr _{0.3} MnO ₃ multiferroic heterostructures	SCIENTIFIC REPORTS, 7 , 6563 (2017)	Hrib, LM; Pintilie, L; Alexe, M	4.122	1.356	10.1038/s41598-017-06487-3	Q1	Q1	6	
48	Normal and Inverted Hysteresis in Perovskite Solar Cells	JOURNAL OF PHYSICAL CHEMISTRY C, 121 , pp+11207-11214 (2017)	Nemnes, GA; Besleaga, C; Stancu, V; Dogaru, DE; Leonat, LN; Pintilie, L; Torfason, K; Ilkov, M; Manolescu, A; Pintilie, I	4.484	1.105	10.1021/acs.jpcc.7b04248	Q1	Q1	52	
49	Atomistic Simulations of Methylammonium Lead Halide Layers on PbTiO ₃ (001) Surfaces	JOURNAL OF PHYSICAL CHEMISTRY C, 121 , pp+9096-9109 (2017)	Plugaru, N; Nemnes, GA; Filip, L; Pintilie, I; Pintilie, L; Butler, KT; Manolescu, A	4.484	1.105	10.1021/acs.jpcc.7b00399	Q1	Q1	8	
50	Iodine Migration and Degradation of Perovskite Solar Cells Enhanced by Metallic Electrodes	JOURNAL OF PHYSICAL CHEMISTRY LETTERS, 7 , pp+5168-5175 (2016)	Besleaga, C; Abramiuc, LE; Stancu, V; Tomulescu, AG; Sima, M; Trinca, L; Plugaru, N; Pintilie, L; Nemnes, GA; Ilescu, M; Svavarsson, HG; Manolescu, A; Pintilie, I	9.353	2.670	10.1021/acs.jpcclett.6b02375	Q1	not available	168	
51	Ferroelectric triggering of carbon monoxide adsorption on lead zirconate (001) surfaces	SCIENTIFIC REPORTS, 6 , 35301 (2016)	Tanase, LC; Apostol, NG; Abramiuc, LE; Tache, CA; Hrib, L; Trupina, L; Pintilie, L; Teodorescu, CM	4.259	1.484	10.1038/srep35301	Q1	not available	18	
52	Preface for ROCAM 2015	THIN SOLID FILMS, 614 , pp+1-1 (2016)	Pintilie, L	1.879	0.384	10.1016/j.tsf.2016.05.009	Q2	not available	0	
53	Characteristics of Ce ³⁺ -doped barium titanate nanoshell tubes prepared by template-mediated colloidal chemistry	JOURNAL OF THE EUROPEAN CERAMIC SOCIETY, 36 , pp+1633-1642 (2016)	Ianculescu, AC; Vasilescu, CA; Trupina, L; Vasile, BS; Trusca, R; Cernea, M; Pintilie, L; Nicoara, A	3.454	0.701	10.1016/j.jeurceramsoc.2016.01.045	Q1	not available	9	
54	Metal-ferroelectric-metal current-voltage characteristics: A charge flow balance through interfaces approach	EUROPEAN PHYSICAL JOURNAL B, 89 , 44 (2016)	Filip, LD; Pintilie, L	1.436	0.449	10.1140/epjb/e2016-60909-9	Q3	not available	3	
55	Electrical properties of templateless electrodeposited ZnO nanowires	MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, 42 , pp+364-372 (2016)	Matei, E; Costas, A; Florica, C; Enculescu, M; Pintilie, I; Pintilie, L; Enculescu, I	2.359	0.398	10.1016/j.mssp.2015.11.007	Q2	not available	13	
56	Leakage current for thin film metal-ferroelectric-metal devices	2016 5TH INTERNATIONAL SYMPOSIUM ON NEXT-GENERATION	Filip, LD; Pintilie, L; Tam, WS; Kok, CW	not available	not available		not available	not available	1	

		ELECTRONICS (ISNE),, pp+- (2016)							
57	Electrode interface controlled electrical properties in epitaxial Pb(Zr _{0.52} Ti _{0.48})O ₃ films grown on Si substrates with SrTiO ₃ buffer layer	THIN SOLID FILMS, 59 , pp+124-130 (2015)	Boni, AG; Chirila, C; Pasuk, I; Negrea, R; Trupina, L; Le Rhun, G; Vilquin, B; Pintilie, I; Pintilie, L	1.761	0.426	10.1016/j.tsf.2015.09.028	Q2	not available	3
58	Polarization induced self-doping in epitaxial Pb(Zr _{0.20} Ti _{0.80})O ₃ thin films	SCIENTIFIC REPORTS, 5 , 14974 (2015)	Pintilie, L; Ghica, C; Teodorescu, CM; Pintilie, I; Chirila, C; Pasuk, I; Trupina, L; Hrib, L; Boni, AG; Apostol, NG; Abramiuc, LE; Negrea, R; Stefan, M; Ghica, D	5.228	1.863	10.1038/srep14974	Q1	not available	49
59	Simulation of the capacitance-voltage characteristic in the case of epitaxial ferroelectric films with Schottky contacts	THIN SOLID FILMS, 59 , pp+200-206 (2015)	Filip, LD; Pintilie, L; Stancu, V; Pintilie, I	1.761	0.426	10.1016/j.tsf.2015.08.046	Q2	not available	5
60	Comparison between the ferroelectric/electric properties of the PbZr _{0.52} Ti _{0.48} O ₃ films grown on Si (100) and on STO (100) substrates	JOURNAL OF MATERIALS SCIENCE, 50 , pp+3883-3894 (2015)	Chirila, C; Boni, AG; Pasuk, I; Negrea, R; Trupina, L; Le Rhun, G; Yin, S; Vilquin, B; Pintilie, I; Pintilie, L	2.302	0.566	10.1007/s10853-015-8907-2	Q2	not available	11
61	Electrical properties of single CuO nanowires for device fabrication: Diodes and field effect transistors	APPLIED PHYSICS LETTERS, 106 , 223501 (2015)	Florica, C; Costas, A; Boni, AG; Negrea, R; Ion, L; Preda, N; Pintilie, L; Enculescu, I	3.142	1.045	10.1063/1.4921914	Q1	not available	22
62	Microstructure and properties of epitaxial Sr ₂ FeMoO ₆ films containing SrMoO ₄ precipitates	JOURNAL OF MATERIALS SCIENCE, 50 , pp+3131-3138 (2015)	Deniz, H; Preziosi, D; Alexe, M; Hesse, D; Eisenschmidt, C; Schmidt, G; Pintilie, L	2.302	0.566	10.1007/s10853-015-8874-7	Q2	not available	12
63	Spectro-microscopic photoemission evidence of charge uncompensated areas in Pb(Zr,Ti)O ₃ (001) layers	PHYSICAL CHEMISTRY CHEMICAL PHYSICS, 17 , pp+509-520 (2015)	Popescu, DG; Husanu, MA; Trupina, L; Hrib, L; Pintilie, L; Barinov, A; Lizzit, S; Lacovig, P; Teodorescu, CM	4.449	1.158	10.1039/c4cp04546g	Q1	not available	36
64	Intrinsic energy band alignment of functional oxides	PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS, 8 , pp+571-576 (2014)	Li, SY; Chen, F; Schafranek, R; Bayer, TJM; Rachut, K; Fuchs, A; Siol, S; Weidner, M; Hohmann, M; Pfeifer, V; Morasch, J; Ghinea, C; Arveux, E; Gunzler, R; Gassmann, J; Korber, C; Gassenbauer, Y; Sauberlich, F; Rao, GV; Payan, S; Maglione, M; Chirila, C; Pintilie, L; Jia, LC; Ellmer, K; Naderer, M; Reichmann, K; Bottger, U; Schmelzer, S; Frunza, RC; Ursic, H; Malic, B; Wu, WB; Erhart, P; Klein, A	2.142	0.742	10.1002/psr.201409034	Q2	not available	51
65	Schottky barrier versus surface ferroelectric depolarization at Cu/Pb(Zr, Ti)O ₃ interfaces	JOURNAL OF MATERIALS SCIENCE, 49 , pp+3337-3351 (2014)	Stoflea, LE; Apostol, NG; Chirila, C; Trupina, L; Negrea, R; Pintilie, L; Teodorescu, CM	2.371	0.592	10.1007/s10853-014-8041-6	Q1	not available	20
66	Polarization-Control of the Potential Barrier at the Electrode Interfaces in Epitaxial Ferroelectric Thin Films	ACS APPLIED MATERIALS & INTERFACES, 6 , pp+2929-2939 (2014)	Pintilie, I; Teodorescu, CM; Ghica, C; Chirila, C; Boni, AG; Hrib, L; Pasuk, I; Negrea, R; Apostol, N; Pintilie, L	6.723	1.373	10.1021/am405508k	Q1	not available	65
67	Band bending at free Pb(Zr,Ti)O ₃ surfaces	MATERIALS SCIENCE AND ENGINEERING B-	Apostol, NG; Stoflea, LE; Lungu, GA; Tache, CA;	2.122	0.465	10.1016/j.mseb.2013.0	Q2	not available	38

	analyzed spectroscopy by X-ray photoelectron	ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, 178 , pp+1317-1322 (2013)	Popescu, DG; Pintilie, L; Teodorescu, CM			2.007		e	
68	Band bending in Au/Pb(Zr,Ti)O-3 investigated by X-ray photoelectron spectroscopy: Dependence on the initial state of the film	THIN SOLID FILMS, 545 , pp+13-21 (2013)	Apostol, NG; Stoflea, LE; Lungu, GA; Tanase, LC; Chirila, C; Frunza, L; Pintilie, L; Teodorescu, CM	1.867	0.510	10.1016/j.tsf.2013.04.092	Q2	not available	26
69	Influence of orbital contributions to the valence band alignment of Bi ₂ O ₃ , Fe ₂ O ₃ , BiFeO ₃ , and Bi _{0.5} Na _{0.5} TiO ₃	PHYSICAL REVIEW B, 88 , 045428 (2013)	Li, SY; Morasch, J; Klein, A; Chirila, C; Pintilie, L; Jia, LC; Ellmer, K; Naderer, M; Reichmann, K; Groting, M; Albe, K	3.664	1.342	10.1103/PhysRevB.88.045428	N/A	not available	47
70	Charge transfer and band bending at Au/Pb(Zr _{0.2} Ti _{0.8})O-3 interfaces investigated by photoelectron spectroscopy	APPLIED SURFACE SCIENCE, 273 , pp+415-425 (2013)	Apostol, NG; Stoflea, LE; Lungu, GA; Chirila, C; Trupina, L; Negrea, RF; Ghica, C; Pintilie, L; Teodorescu, CM	2.538	0.550	10.1016/j.apsusc.2013.02.056	Q1	not available	48
71	Structural, dielectric, and piezoelectric properties of fine-grained NBT-BT _{0.11} ceramic derived from gel precursor	JOURNAL OF THE EUROPEAN CERAMIC SOCIETY, 32 , pp+2389-2397 (2012)	Cerne, M; Galassi, C; Vasile, BS; Capiati, C; Berbecaru, C; Pintilie, I; Pintilie, L	2.360	0.690	10.1016/j.jeurceramsoc.2012.02.021	not available	not available	16
72	Charge Transport in Ferroelectric Thin Films	FERROELECTRICS - PHYSICAL EFFECTS,, pp+101-134 (2011)	Pintilie, L	not available	not available		not available	not available	12
73	Ferroelectric Schottky diode behavior from a SrRuO ₃ -Pb(Zr _{0.2} Ti _{0.8})O-3-Ta structure	PHYSICAL REVIEW B, 82 , 085319 (2010)	Pintilie, L; Stancu, V; Trupina, L; Pintilie, I	3.774	1.385	10.1103/PhysRevB.82.085319	N/A	not available	50
74	The influence of the top-contact metal on the ferroelectric properties of epitaxial ferroelectric Pb(Zr _{0.2} Ti _{0.8})O-3 thin films	JOURNAL OF APPLIED PHYSICS, 104 , 114101 (2008)	Pintilie, L; Vrejoiu, I; Hesse, D; Alexe, M	2.201	0.945	10.1063/1.3021293	Q1	not available	79
75	Coexistence of ferroelectricity and antiferroelectricity in epitaxial PbZrO ₃ films with different orientations	JOURNAL OF APPLIED PHYSICS, 103 , 024101 (2008)	Pintilie, L; Boldyreva, K; Alexe, M; Hesse, D	2.201	0.945	10.1063/1.2831023	Q1	not available	59
76	Capacitance tuning in antiferroelectric-ferroelectric PbZrO ₃ -Pb(Zr _{0.8} Ti _{0.2})O ₃ epitaxial multilayers	NEW JOURNAL OF PHYSICS, 10 , 013003 (2008)	Pintilie, L; Boldyreva, K; Alexe, M; Hesse, D	3.440	1.863	10.1088/1367-2630/10/1/013003	Q1	not available	27
77	Ferroelectric/Antiferroelectric Pb(Zr _{0.8} Ti _{0.2})O ₃ /PbZrO ₃ Epitaxial Multilayers: Growth and Thickness-Dependent Properties	FERROELECTRICS, 370 , PII 905070271 (2008)	Boldyreva, K; Pintilie, L; Lotnyk, A; Misirlioglu, IB; Alexe, M; Hesse, D	0.562	0.176	10.1080/00150190802384492	Q3	not available	7
78	Thickness-driven antiferroelectric-to-ferroelectric phase transition of thin PbZrO ₃ layers in epitaxial PbZrO ₃ /PbZr _{0.8} Ti _{0.2} O ₃ multilayers (vol 91, art no 122915, 2007)	APPLIED PHYSICS LETTERS, 91 , 209901 (2007)	Boldyreva, K; Pintilie, L; Lotnyk, A; Misirlioglu, IB; Alexe, M; Hesse, D	3.596	1.491	10.1063/1.2811708	Q1	not available	0
79	Thickness-driven antiferroelectric-to-ferroelectric phase transition	APPLIED PHYSICS LETTERS, 91 , 122915 (2007)	Boldyreva, K; Pintilie, L; Lotnyk, A; Misirlioglu, IB; Alexe, M; Hesse, D	3.596	1.491	10.1063/1.2789401	Q1	not available	42

of thin PbZrO ₃ layers in epitaxial PbZrO ₃ /Pb(Zr _{0.8} Ti _{0.2})O ₃ multilayers									
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Brevete (from Derwent Innovation Index)

1.
RO134267-A0
Method of dielectric dynamic characterization of ferroelectric structures, in relation to reversal of polarization, involves determining equivalent R_p and C_p values by analyzing, current resulting from application of voltage pulse
Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE
Inventor(s): BONI A G; CHIRILA C F; PINTILIE L.
Derwent Primary Accession Number: 2020-60587B

2.
RO134068-A0
Method for detecting non-destructive reading of ferroelectric memories, involves in phase or anti-phase statuses that are highlighted by lock-in amplifier for allowing identification of polarization state of ferroelectric memory bit
Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE
Inventor(s): IUGA A R; BONI A; PINTILIE L.
Derwent Primary Accession Number: 2020-36416H

3.
RO133687-A0
Infrared detector has silicon wafer and layer of strontium ruthenate which generate contact electromotive force, with function of moving electric charges generated by photovoltaic effect in electric pulse, and act as electrodes
Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE
Inventor(s): IUGA A R; CHIRILA F C; PINTILIE L; et al.
Derwent Primary Accession Number: 2019-93514P

4.
RO133685-A0
Method for manufacturing electrode for pyroelectric device, involves spraying commercial carbon-based paste diluted carbon-based solution on heated substrate by carrier gas using aerograph, and thermally treating electrodes
Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE
Inventor(s): CHIRILA F C, BONI A, IUGA A R, DUMITRU V G, BOTE A I, GALCA A, PINTILIE I, PINTILIE L
Derwent Primary Accession Number: 2019-93514R

5.
RO133234-A0
Logic circuit has ferroelectric layer which is made of lead zirconate titanate, and insulating layer which is formed of strontium titanate or barium titanate, while all layers are deposited by pulsed beam laser ablation
Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE
Inventor(s): BONI G A, CHIRILA C, HRIB L, DUMITRU V, PINTILIE I, PINTILIE L
Derwent Primary Accession Number: 2019-45985F

6.
RO132815-A0; RO132815-A3; RO132815-B1
Mesoporous layer used e.g. in medical application, is prepared by cleaning substrate, preparing precursor solution from slurry containing titanium dioxide nanoparticles, and depositing film by spraying precursor solution on substrate
Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE
Inventor(s): PINTILIE I, TOMULESCU A G, LEONAT L N, STANCU V, BESLEAGA S C, TOMA V, DUMITRU V G, PINTILIE L

Derwent Primary Accession Number: 2019-36097W

7.
RO132889-A2
Non-destructive ferroelectric memory has multilayer structure in which two ferroelectric layers of same material and same thickness are separated by layer of another material with high resistivity

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): BONI G A, CHIRILA C, HRIB L, PINTILIE I, PINTILIE L

Derwent Primary Accession Number: 2019-371483

8.
RO132890-A0
Ferroelectric and insulating layers based capacitive analogue memory with multiple states of memory, has ferroelectric-insulator-ferroelectric type structure that is obtained by successive deposition by physicochemical methods

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): BONI G A, CHIRILA C, HRIB L, VIOREL D, PINTILIE I, PINTILIE L

Derwent Primary Accession Number: 2019-371482

9.
RO132789-A2
Ferroelectric memory structure with multiple states of memory, has first ferroelectric layer and insulating layer that are followed by a second ferroelectric layer of same material with same thickness

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): BONI G A; CHIRILA C; HRIB L; PINTILIE I; PINTILIE L

Derwent Primary Accession Number: 2019-342270

10.
RO132446-A0
PYROELECTRIC DETECTOR BASED ON CERAMICS WITH PLANAR CONCENTRATION GRADIENT AND UNIVERSAL PYROELECTRIC SIGNAL AMPLIFIER FOR VOLTAGE MODE

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): PINTILIE L; PINTILIE I; BOTEAN M; et al.

Derwent Primary Accession Number: 2018-247017

11.
RO132504-A2
PYROELECTRIC DETECTION ELEMENT FOR WORKING AT HIGH TEMPERATURES

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): STAN G, PINTILIE I, BESLEAGA S C, BOTEAN M, DOBRESCU G, CIOCA M, CULEA L, SOARE P, PINTILIE L

Derwent Primary Accession Number: 2018-33448J

12.
RO132197-A2; RO132197-B1
MASSIVE FERROELECTRIC CERAMICS WITH IMPROVED PROPERTIES FOR PYROELECTRIC DETECTION BY CONCENTRATION GRADIENT

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): PINTILIE L; PINTILIE I; IANCULESCU C A.

Derwent Primary Accession Number: 2017-73426G

13.
RO128455-A2
Method of forming ferro-electric schottky diode, involves depositing thin epitaxial layer of PZT and depositing punctiform tantalum electrode which forms ohmic contact

Assignee: INST NAT CERCETARE DEZV FIZICA MATERIALE

Inventor(s): PINTILIE L; PINTILIE I; IUGA A R; et al.

Derwent Primary Accession Number: 2013-K35606

14.

RO112391-B1

Lead sulphide photoresistor

Assignee: INST FIZICA TEHNOLOGIA MATERIALELOR

Inventor(s): PINTILIE L; PINTILIE I; BOTILA T; et al.

Derwent Primary Accession Number: 1998-108670

15.

RO110740-B1

Infrared modulated light detector

Assignee: INST FIZICA TEHNOLOGIA MATERIALELOR

Inventor(s): PINTILIE L; PINTILIE I.

Derwent Primary Accession Number: 1997-019151

16.

RO109482-B1

Pyroelectric composite material with high pyroelectric coefficient

Assignee: INST FIZICA TEHNOLOGIA MATERIALELOR

Inventor(s): CONSTANTIN C; PINTILLIE L; RIBCO L; et al.

Derwent Primary Accession Number: 1995-365090