CURRÍCULUM VÍTAE NORMALIZADO



Valentina Roxana Vlad

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FECYT INNOVACIÓN

Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

I'm a researcher dedicated to the world of materials with more than 20 years of experience. Starting with nuclear materials, I went on with biomaterials (Master studies) and superconducting materials (PhD) acquiring a solid background for the research and development in these fields.

During my Master and PhD studies, I have synthesized biomaterials (hydoxyapatite for medicine applications) and superconducting materials (Coated Conductors for energy applications) using the metalorganic chemical route. In my research, I have developed sufficient skills to carry out structural and morphological characterization of different advanced materials. For the characterization of these materials, I have used techniques such as 2D X-ray Diffraction, IR, Reflectometry, Optical Microscopy, RAMAN, AFM, SQUID, SEM, FIB and TEM.

In my experimental work after the PhD, working in the CSIC's spin off Oxolutia S.L., I carried out great effort on scaling up different superconducting materials on metallic substrates achieving performant superconducting properties (> 200 A/cm-width in short samples, values close to the one from the market). This fundamental research has been complemented with practical application of oxide nanostructures in the field of high temperature superconductors. I have used the nanostructured templates to induce artificial vortex pinning centres in YBa2Cu3O7 thin films prepared from solutions and thus improve the vortex pinning capabilities of such films.

I have done the PhD thesis in a large international group, so that I am very used to collaborate, share and interact with other people. I am also used to work and deal with large variety of systems and activities, as it is proved by the interdisciplinary work done through all my reasearch activity. I am a good communicative as it is evidenced by more than 45 participations in national and international project meetings, congresses and conferences (CERMAE, NANOSELECT, SUPERINKS, EUCAS, CCA, MRS, ASC, EUROTAPES, FASTGRID,etc). In all these years, I have collaborated with big companies from the industry, universities and technological centers such as BRUKER, THEVA, NEXANS, KAO CHIMIGRAF, IFW, SuNAM, SUMITOMO, Shanghai Creative Superconductor, Tel Aviv University, KIT, LEITAT, EURECAT,etc.

General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.



Valentina Roxana Vlad

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Current professional situation

1 **Employing entity:** Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** Public Research Body
Professional category: Titulado Superior Fuera de Convenio
Start date: 01/12/2024
Type of contract: Permanent employment contract **Dedication regime:** Full time

2 **Employing entity:** Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
Professional category: R&D Project Researcher (Titulado Superior convenio, G1)
Start date: 01/02/2022

3 **Employing entity:** Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** Public Research Body
Department: SUMAN, ICMAB-CSIC
Professional category: R&D Project Researcher (Titulado Superior convenio, G1)
Start date: 01/04/2020
Type of contract: Temporary employment contract

Previous positions and activities

	Employing entity	Professional category	Start date
1	Oxolutia S.L., CSIC's spin off	R&D Researcher, Product Manager	01/03/2011
2	Instituto de Ciencia de los Materiales de Barcelona	Laboratory technician (Titulado medio, G2)	04/10/2010
3	Instituto de Ciencia de los Materiales de Barcelona	Investigadora (Titulado Superior, G1)	04/10/2007
4	Nuclear Fuel Plant (FCN)	Quality Assurance Engineer; Chemist	01/10/2003

1

Employing entity: Oxolutia S.L., CSIC's spin off
Professional category: R&D Researcher, Product Manager
Start-End date: 01/03/2011 - 02/12/2019 **Duration:** 8 years - 10 months
Type of contract: Permanent employment contract
Performed tasks: • Synthesis, deposition and characterization of different oxides and advanced materials • Participations in congresses and conferences • Pre-pilot plant tours for the visitors explaining the technological know-how of the company • Consulting activities for national and international companies.

2 **Employing entity:** Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
Professional category: Laboratory technician (Titulado medio, G2)
Start-End date: 04/10/2010 - 28/02/2011 **Duration:** 5 months
Performed tasks: • Calibration of furnaces • Maintenance and cleaning of the lab • Supply of lab material • Trainings for the new people.

3 **Employing entity:** Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
Professional category: Investigadora (Titulado Superior, G1)
Start-End date: 04/10/2007 - 30/09/2010

4 **Employing entity:** Nuclear Fuel Plant (FCN) **Type of entity:** State agency
Professional category: Quality Assurance Engineer; Chemist
Start-End date: 01/10/2003 - 30/11/2006 **Duration:** 3 years - 1 month
Performed tasks: • Water analysis • Reading the personal irradiation doses with a Panasonic TLD Reader 706A and calculation of the external dose • Writing Quality Procedures (ISO 9001).

Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

1 **University degree:** Higher degree
Name of qualification: DEA
City degree awarding entity: Bellaterra, Spain
Degree awarding entity: Universitat Autònoma de Barcelona **Type of entity:** University
Date of qualification: 29/11/2007

2 **University degree:** Middle degree
Name of qualification: Bachelor's Degree
City degree awarding entity: Pitesti, Romania
Degree awarding entity: Pitesti University **Type of entity:** University
Date of qualification: 30/06/2002
Date of homologation: 13/07/2007
Foreign qualification: Degree in Chemistry-Phisics

3 **University degree:** Higher degree
Name of qualification: Master in Science of Materials, Nanomaterials and Multimaterials
City degree awarding entity: Touoluse, France
Degree awarding entity: Institut National Polytechnique de Toulouse **Type of entity:** University
Date of qualification: 14/10/2005
Average mark: Good
Foreign qualification: Master en Materieaux, Nanomateriaux et Multimateriaux

4 **University degree:** Higher degree
Name of qualification: Master in Materials Science and Technology
City degree awarding entity: Pitesti, Romania
Degree awarding entity: Pitesti University **Type of entity:** University
Date of qualification: 16/09/2005
Foreign qualification: Master in Stiinta si tehnologia materialelor

5 **University degree:** Middle degree
Name of qualification: Baccalaureate Degree
City degree awarding entity: Pitesti, Romania
Degree awarding entity: Economic College **Type of entity:** State agency
Date of qualification: 17/07/1998
Foreign qualification: Analyst Developer - Informatics

Doctorates

Doctorate programme: Programa Oficial de Doctorado en Ciencia de Materiales
Degree awarding entity: Universitat Autònoma de Barcelona **Type of entity:** University
City degree awarding entity: Bellaterra, Spain
Date of degree: 30/05/2011
DEA awarding entity: Universitat Autònoma de Barcelona
Thesis title: Growth and characterization of chemical solution based nanostructured coated conductors with CeO(2) cap layers
Thesis director: Xavier Obradors
Obtained qualification: Sobresaliente Cum Laude

Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

1 **Training title:** S3E Start
Awarding entity: European Commission under Grant Agreement number 101072135 and coordinated by HISEEDTECH - ASSOCIAÇÃO PARA A VALORIZAÇÃO DO CONHECIMENTO (VAT: 514501960)
End date: 20/07/2023 **Duration in hours:** 150 hours

2 **Training title:** Accelerating the commercial and bussiness potential of your research project (PoC Trainning Program)
Awarding entity: AEI&Parc de Recerca UAB
End date: 16/02/2023 **Duration in hours:** 18 hours

3 **Training title:** European Ecosystem of research and tech transfer, 20/09/2021
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 20/09/2021 **Duration in hours:** 3 hours

4 **Training title:** Tips for successful meetings with companies: Out-of-the box seminar at ICMAB
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 31/05/2021 **Duration in hours:** 2 hours

5 **Training title:** Riesgo químico: prevención y control en los centros del CSIC
Awarding entity: CSIC
End date: 06/05/2021 **Duration in hours:** 3 hours

6 **Training title:** Lab2Market program from the XRE4S, Barcelona, 12/2020-03/2021
Awarding entity: IREC
End date: 03/2021 **Duration in hours:** 20 hours

7 **Training title:** Google Ads: crea campanyes de publicitat efectives
Awarding entity: Barcelona Activa, Spain
End date: 29/02/2020 **Duration in hours:** 4 hours

8 **Training title:** Introducción al Desarrollo Web: HTML y CSS I
Awarding entity: Instituto de Economía Internacional de la Universitat d'Alacant; Google EMEA
End date: 24/07/2019 **Duration in hours:** 40 hours

9 **Training title:** Sistema de Gestión de la Calidad ISO 9001:2015, 07/03/2018 - 24/04/2018
Awarding entity: FOESCO
End date: 24/04/2018 **Duration in hours:** 56 hours

10 **Training title:** Modelos de negocio: el modelo Canvas
Awarding entity: Fondo de emprendedores Repsol
End date: 10/2016

11 **Training title:** Introducción a Lean Startup
Awarding entity: Fondo de emprendedores Repsol
End date: 01/2016

12 **Training title:** Vortex physics of strained nanocomposite films
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 11/12/2015 **Duration in hours:** 15 hours

13 **Training title:** Prevención de riesgos laborales en laboratorios de investigación
Awarding entity: CSIC
End date: 07/04/2014 **Duration in hours:** 3 hours

14 **Training title:** Nanoselect course
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 16/06/2013 **Duration in hours:** 20 hours

15 **Training title:** Course of the Clean Room Nanostructuration Platform
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 04/2013 **Duration in hours:** 20 hours

16 **Training title:** Ciclo de seminarios "Doctores en la empresa" 15/09/2010-2/12/2010
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 02/12/2010

17 **Training title:** R&D Project Management and Technology Transfer: from Research to the Market, 10/10/2010
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 10/10/2010 **Duration in hours:** 4 hours

18 **Training title:** Communication and Management for engineers
Awarding entity: Karel de Grote - University Collage of Antwerp
End date: 20/05/2010 **Duration in hours:** 16 hours

19 **Training title:** Basic superconducting measurement techniques
Awarding entity: TUW Austria
End date: 23/10/2009 **Duration in hours:** 40 hours

20 **Training title:** Time Management in Doctoral Research, IFW Dresden
Awarding entity: IFW Dresden, Germany
End date: 18/09/2009 **Duration in hours:** 8 hours

21 **Training title:** Aplicació de la difracció de raigs X a materials
Awarding entity: Instituto de ciencias de materiales de Barcelona
End date: 24/11/2008 **Duration in hours:** 8 hours

22 **Training title:** Advanced preparation and material characterization techniques
Awarding entity: IFW Dresden, Germany
End date: 05/04/2008 **Duration in hours:** 40 hours

23 **Training title:** Transmission electron microscopy, ICMAB Barcelona
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
End date: 04/2008

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Catalan	B2	B2	B1	B1	B1
French	B2	B2	B1	B1	B1
English	B2	C1	B2	C1	B2
Spanish	C1	C1	C1	C1	C1
Romanian	C2	C2	C2	C2	C2

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 **Name of the project:** Cintas superconductoras para tecnologías emergentes en energía limpia y altas energías (SUPERENERTECH) PID2021-127297OB-C21
Entity where project took place: Instituto de Ciencia de Materiales de Barcelona - CSIC
City of entity: Bellaterra, Spain
Name principal investigator (PI, Co-PI....): Teresa Puig(IP1) and Joffre Gutierrez (IP2)
Funding entity or bodies:
PID2021 (PROYECTOS DE GENERACIÓN DE CONOCIMIENTO 2021) Proyectos investigación orientada - coordinado

Start-End date: 01/10/2022 - 31/08/2025
Total amount: 435.600 €

2 **Name of the project:** High Throughput Superconducting JOINTS for magnets and power devices (HTS-JOINTS)
Entity where project took place: Instituto de Ciencia de Materiales de Barcelona - CSIC
City of entity: Bellaterra, Spain
Name principal investigator (PI, Co-PI....): Prof. Teresa Puig (IP1) and Prof. Xavier Obradors (IP2)
Funding entity or bodies:
MCIN, PDC2022

Start-End date: 01/11/2022 - 30/05/2024
Total amount: 149.500 €

3 **Name of the project:** Industrial Manufacturing Process for A high temperature superconducting Coated conductors Technology, IMPACT, ERC-2019-PoC
Entity where project took place: Instituto de Ciencia **Type of entity:** State agency
de los Materiales de Barcelona
City of entity: Bellaterra, Cataluña, Spain
Start-End date: 01/04/2020 - 30/06/2021

4 **Name of the project:** Cost effective SCFCL using advanced superconducting tapes for future HVDC grids, FASTGRID, GA n.721019
Entity where project took place: CNRS, Grenoble
City of entity: Grenoble, France
Start-End date: 01/01/2017 - 30/06/2020

5 **Name of the project:** Desarrollo de tintas de curado UV y pastas serigraficas enfocadas a cintas superconductoras, SuperInKs, RTC-2015-3640-3
Entity where project took place: Oxolutia S.L.
Start-End date: 02/03/2015 - 30/06/2018

6 **Name of the project:** Large scale integrating Project: "European development of Superconducting tapes: integrating novel materials and architectures into cost effective processes for power applications and magnets", EUROTAPES, FP7-NMP-Large-2011-280432
Entity where project took place: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
Start-End date: 01/09/2012 - 28/02/2017

7 **Name of the project:** 3D Inkjet Printing of PV devices based on thin films of Semiconductor Oxides, 3D-PHOTOXIDES, RDNET14-1-0006
Entity where project took place: Oxolutia S.L.
Start-End date: 01/12/2014 - 30/11/2016

8 **Name of the project:** Materiales avanzados y NANOtecnologíaS para dispositivos y sistemas eléctricos, ELECTrónicos y magnetoelectrónicos innovadores, NANOSELECT, CSD2007-00041
Entity where project took place: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
City of entity: Spain
Start-End date: 01/10/2007 - 01/07/2014

9 **Name of the project:** Desarrollo de cintas superconductoras en modo continuo, INNPACTO, IPT-2011-1090-920000, CONTAPES
Entity where project took place: La Farga Lacambra, S.A. **Type of entity:** Business
Start-End date: 01/06/2011 - 30/06/2014

10 **Name of the project:** Xarxa per materials avançats per a l'energia Xarmae
Entity where project took place: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
Start-End date: 01/01/2010 - 30/12/2011

11 **Name of the project:** NanoEngineered Superconductors for Power Applications NESPA (FP6 MRTN-CT-2006-035619)
Entity where project took place: IFW Dresden
City of entity: Dresden, Germany
Start-End date: 01/10/2006 - 30/09/2010

12 **Name of the project:** High performance nanostructured coated conductors by chemical processing HIPERCHEM (FP6-NMP-2003-516858)
Entity where project took place: Institut de Ciencies de Materials de Barcelona
City of entity: Spain
Start-End date: 01/04/2005 - 30/12/2008

R&D non-competitive contracts, agreements or projects with public or private entities

1 **Name of the project:** Development of 2G-HTS wire production for fusion and high-field applications using the combination of high-speed industrial PLD and Transient Liquid Assisted Growth (TLAG) methods
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): E. Pach; V. R. Vlad; X. Obradors; T. Puig; FARADAY FACTOR JAPAN LLC
Funding entity or bodies:
FARADAY FACTOR JAPAN LLC

Start date: 01/07/2025 **Duration:** 1 year
Total amount: 60.000 €

2 **Name of the project:** Development of superconductors by TLAG proccess including nanoparticles on IBAD type metal substrates
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Prof. Teresa Puig and Dr. Tatsuoki Nagaishi (SUMITOMO ELECTRIC)
Funding entity or bodies:
SUMITOMO ELECTRIC INDUSTRIES (CSIC R&D contract)
City funding entity: Japan

Start date: 12/05/2022 **Duration:** 6 months
Total amount: 46.585 €

3 **Name of the project:** Development of superconductors by chemical solution deposition including nanoparticles on clad type metal substrates and its application for RtoR process development-second period
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Prof. Teresa Puig and Mr. Shinichi Kobayashi (SUMITOMO ELECTRIC)
Funding entity or bodies:
SUMITOMO ELECTRIC INDUSTRIES (CSIC R&D contract)
City funding entity: Japan

Start date: 01/05/2021 **Duration:** 10 months
Total amount: 142.175 €

4 **Name of the project:** Development of superconductors by chemical solution deposition including nanoparticles on clad type metal substrates and its application for RtoR process development
Degree of contribution: Researcher
Funding entity or bodies:
SUMITOMO ELECTRIC INDUSTRIES (CSIC R&D contract)
City funding entity: Japan

Start date: 21/01/2021 **Duration:** 2 months
Total amount: 48.100 €

5 **Name of the project:** High throughput superconducting conductors
Name principal investigator (PI, Co-PI....): Puig; Vlad; Tristany
Funding entity or bodies:
XRE4S, Lab2Market program

Start date: 01/12/2020 **Duration:** 3 months

Results

Industrial and intellectual property

1 **Title registered industrial property:** Protocols of Transient Liquid Assisted Growth of REBa2Cu3O7 films, nanocomposites and Coated Conductors, Trade Secret
Entity holder of rights: SUNAM, ICMAB-CSIC
Nº of application: 67/2021
Country of inscription: Spain
Date of register: 15/01/2021

2 **Title registered industrial property:** Superconductor material and process for producing the same
Inventors/authors/obtainers: Albert Calleja; Valentina Roxana Vlad; Xavier Palmer; Xavier Obradors; Xavier Granados; Teresa Puig; Pedro Barusco; Christian Lacroix; Frederic Sirois
Entity holder of rights: Oxolutia S. L – Consejo Superior Investigaciones Científicas – École Polytechnique de Montreal
Nº of application: EP18382760
Country of inscription: Spain
Date of register: 06/10/2018
Operating aut.region/region: Spain

3 **Title registered industrial property:** Método de fabricación de láminas delgadas de óxidos epitaxiales mediante impresión de chorro de tinta
Inventors/authors/obtainers: Albert Calleja; Marta Vilardell; Valentina Roxana Vlad; Xavier Obradors; Teresa Puig; Susagna Ricart; Xavier Granados
Entity holder of rights: Oxolutia S.L- Consejo Superior Investigaciones Científicas International
Nº of application: 300130128– PCT/ES2014/070534, Extension: 7/01/2016 – WO2016/001454
Country of inscription: Spain
Date of register: 30/06/2014
Operating aut.region/region: Spain

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

1 Prikhna; Kethamkuzhi; Vlad; Karpets; Kluge; Ponomaryov; Moshchil; Obradors; Büchner; Gutierrez; Wurmehl; Puig. High Pressure Oxygenation of EuBCO and GdBCO Coated Conductors. IEEE Transactions on Applied Superconductivity. 35 - 5, 04/12/2024. Available on-line at: <10.1109/TASC.2024.3511544>.

Type of production: Scientific paper **Format:** Journal

Corresponding author: No

2 Prikhna; Kethamkuzhi; Vlad; Kluge; Karpets; Ponomaryov; Moshchil; Büchner; Wurmehl; Gutierrez; Obradors; Puig. Post-oxygenation under high pressure of superconducting EuBCO and GdBCO coated conductors. Sustainable Industrial Processing Summit Volume 14 Intl. Symp on Advanced Materials, Manufacturing, Magnesium and Aluminum (pp. 192-193). Montreal, Canada: FLOGEN Star Outreach. 14, pp. 192 - 193. Flogen Star OUTREACH, 2024. Available on-line at: <https://www.flogen.org/sips2024/paper-14-405.html>.

Type of production: Scientific paper **Format:** Journal

Total no. authors: 12 **Corresponding author:** No

3 Barusco; Granados; Saltarelli; Fournier-Lupien; Lacroix; Ben Saad; Frederic; Vlad; Calleja; Grosse; Puig; Obradors. Chemical Solution Deposition of Insulating Yttria Nanolayers as Current Flow Diverter in Superconducting GdBa2Cu3O7-delta Coated Conductors. ACS Omega. 7 - 18, pp. 15315 - 15325. ACS Omega, 10/05/2022.

Type of production: Scientific paper

Corresponding author: No

4 Pop; Barusco; Vlad; Queralto; Gupta; Almog; Saraf; Deutscher; Granados; Puig; Obradors. High critical current solution derived YBa2Cu3O7 films grown on sapphire. Superconductor Science and Technology. 35 - 5, pp. 054007. IOP Publishing Ltd, 05/04/2022.

Type of production: Scientific paper **Format:** Journal

5 S. Morales Planas; A. Calleja; V. R. Vlad; J. Oró Solé; J. Minguella Canela; J. Farjas. Low temperature processing of solution-derived ceria deposits on flat surfaces of 3D-printed polyamide. Thin Solid Films. vol: 685,, pp. 75 - 80. 01/09/2019. Available on-line at: <https://doi.org/10.1016/j.tsf.2019.05.060>.

Type of production: Scientific paper **Format:** Scientific and technical document or report

6 V. R. Vlad; E. Bartolome; M. Vilardell; A. Calleja; A. Meledin; X. Obradors; T. Puig; S. Ricart; G. Van Tendeloo; A. Usoskin; S. Lee; V. Petrykin; A. Molodyk. Inkjet printed multi-deposited YBCO on CGO/LMO/MgO/Y2O3/Al2O3/Hastelloy tape for 2G Coated Conductors. IEEE Transactions on Applied Superconductivity. 2018. Available on-line at: <DOI: 10.1109/TASC.2018.2808403>.

Type of production: Scientific paper

7 Jordina Fornell Jordi Sort Roxana Vlad Juan Car {Marta Vilardell; Albert Calleja. Inkjet-Printed Chemical Solution Y2O3 Layers for Planarization of Technical Substrates. Coatings. 7 - 12, pp. 227 - 227. 2017. Available on-line at: <https://doi.org/10.3390/coatings7120227>.

Type of production: Scientific paper **Format:** Journal

8 Simon C. Hopkins; Tom B. Mitchell-Williams; Dries R. Vanden Bussche; Albert Calleja; Valentina Roxana Vlad; Marta Vilardell; Xavier Granados; Teresa Puig; Xavier Obradors; Alexander Usoskin; Mykola Soloviov; Michal Vojenciak; Fedor Gomory; Isabel Van Driessche; Michael Backer; Bartek A. Glowacki. Low AC Loss Inkjet-Printed Multifilamentary YBCO Coated Conductors. IEEE Transactions on Applied Superconductivity. 26 - 3, Institute of Electrical and Electronics Engineers Inc., 04/2016. Available on-line at: <DOI: 10.1109/TASC.2016.2542001>.
Type of production: Scientific paper **Format:** Journal

9 A. Calleja; J. Sort; S. Ricart; X. Granados; X. Palmer; V.R. Vlad; T. Puig; X. Obradors. Composite films combining electrospun fiber network and epitaxial oxide by chemical solution deposition. Journal of Sol-Gel Science and Technology. 80 - 2, 2016. Available on-line at: <doi: 10.1007/s10971-016-4133-x>.
Type of production: Scientific paper **Format:** Journal

10 S C Hopkins; D Joseph; T B Mitchell-Williams; A Calleja; V R Vlad; M Vilardell; S Ricart; X Granados; T Puig; X Obradors; A Usoskin; M Falter; M B{ä}cker; B A Glowacki. Inkjet printing of multifilamentary YBCO for low AC loss coated conductors. Journal of Physics: Conference Series. 507 - 2, pp. 022010 - 022010. 2014. Available on-line at: <http://stacks.iop.org/1742-6596/507/i=2/a=022010?key=crossref.d5bc044bcebf7f9cb440e39b09933a99{%}5Cnhttp://stacks.iop.org/1742-6596/507/i=2/a=022010>.
Type of production: Scientific paper **Format:** Journal

11 E. Bartolom{é}; V.R. Vlad; A. Calleja; M. Aklalouch; R. Guzm{á}n; J. Arbiol; X. Granados; A. Palau; X. Obradors; T. Puig; A. Usoskin. Magnetic and structural characterization of inkjet-printed TFA-YBa2Cu3O7-x/MOD-CZO/ABAD-YSZ/SS coated conductors. Superconductor Science and Technology. 26 - 12, 2013. Available on-line at: <https://doi.org/10.1088/0953-2048/26/12/125004>. ISSN 09532048
Type of production: Scientific paper **Format:** Journal

12 X. Obradors; F. Martinez-Julián; K. Zalamova; V. R. Vlad; A. Pomar; A. Palau; A. Llord{é}s; H. Chen; M. Coll; S. Ricart; N. Mestres; X. Granados; T. Puig; M. Rikel. Nucleation and mesostrain influence on percolating critical currents of solution derived YBa 2Cu 3O 7 superconducting thin films. Physica C: Superconductivity and its Applications. 482, pp. 58 - 67. 11/2012. Available on-line at: <https://doi.org/10.1016/j.physc.2012.04.020>.
Type of production: Scientific paper **Format:** Journal

13 a. Llordés; a. Palau; J. Gázquez; M. Coll; R. Vlad; a. Pomar; J. Arbiol; R. Guzm{á}n; S. Ye; V. Rouco; F. Sandiumenge; S. Ricart; T. Puig; M. Varela; D. Chateigner; J. Vanacken; J. Guti{é}rrez; V. Moshchalkov; G. Deutscher; C. Magen; X. Obradors. Nanoscale strain-induced pair suppression as a vortex-pinning mechanism in high-temperature superconductors. Nature Materials. 11 - 4, pp. 329 - 336. 2012. Available on-line at: <DOI:https://doi.org/10.1038/nmat3247>.
Type of production: Scientific paper **Format:** Journal

14 A. Pomar; V.R. Vlad; A. Llordés; A. Palau; J. Gutiérrez; S. Ricart; T. Puig; X. Obradors; A. Usoskin. Enhanced vortex pinning in YBCO coated conductors with BZO nanoparticles from chemical solution deposition. IEEE Transactions on Applied Superconductivity. 19 - 3, 2009. Available on-line at: <DOI: 10.1109/TASC.2009.2018422>. ISSN 10518223
Type of production: Scientific paper **Format:** Journal

15 V.R. Vlad; K. Zalamova; M. Coll; A. Pomar; A. Palau; J. Gutierrez; T. Puig; X. Obradors; A. Usoskin. Growth of chemical solution deposited TFAYBCO/MOD(Ce, Zr)O2/ABADYSZ/SS. IEEE Transactions on Applied Superconductivity. 19 - 3, 2009. Available on-line at: <DOI: 10.1109/TASC.2009.2019664>. ISSN 10518223
Type of production: Scientific paper **Format:** Journal

16 Vlad; Tristany; Puig; Obradors. High Throughput Superconducting Conductors. XRE4S Technology Scouting Program - Lab2Market Program, phase 1 and 2. 23/10/2020.
Type of production: Scientific-technical report
Corresponding author: Yes

17 T. Puig Molina X. Obradors Berenguer, S. Ricart Miró, L. Saltarelli, D. García Franco; A. Pacheco Aceña, J. Banchewski, A. Queraltó, S. Rasi,; V. R. Vlad, K. Gupta, M. García de Palau Galí, M. Tristany Soler. Protocols of Transient Liquid Assisted Growth of REBa2Cu3O7 films, nanocomposites and Coated Conductors. Trade Secret. 67/2021, 15/01/2021.
Type of production: Trade Secret

Works presented at national or international conferences

1 **Title of the work:** Towards a more sustainable ICMAB with a Greener, Smarter, More Responsible Science
Name of the conference: SAB 2026
Type of event: -
Type of participation: Participatory - poster
City of event: Bellaterra, Cataluña, Spain
Date of event: 12/05/2026
End date: 13/05/2026
Organising entity: Instituto de Ciencia de los Materiales de Barcelona
Type of entity: State agency
Vlad; The ICMAB Sustainability Committee.

2 **Title of the work:** Increasing the Critical Current Density of GdBCO Coated Conductors and YBCO Films Deposited on STO Substrates by High-Pressure High Temperature Oxygenation
Name of the conference: ICSM2026
Type of event: Conference
Type of participation: Participatory - invited / keynote talk
City of event: Fethiye, Turkey
Date of event: 19/04/2026
End date: 26/04/2026
R. Vlad; T. Prikhna; A. Kethamkuzhi; M. Voulhoux; R. Kluge; B. Büchner; M. Karpets; S. Ponomaryov; V. Moshchil; X. Obradors; J. Gutierrez; T. Puig.

3 **Title of the work:** Length, pinning and overdoping
Name of the conference: ICSM2026
Type of event: Conference
Type of participation: Participatory - invited / keynote talk
City of event: Fethiye, Turkey
Date of event: 19/04/2026
End date: 26/04/2026
R. Vlad; T. Puig; X. Obradors.

4 **Title of the work:** The Transient Liquid Assisted Growth (TLAG) Method for Ultrafast Growth of REBCO Coated Conductors
Name of the conference: ICSM2026
Type of event: Conference
Type of participation: Participatory - invited / keynote talk
City of event: Fethiye, Turkey
Date of event: 19/04/2026
End date: 26/04/2026
R. Vlad; T. Puig; X. Obradors; J. Gutierrez; E. Pach; C. Pop; K. Gupta; S. Rasi; C. Torres; A. Kethamkuzhi; O. Mola; E. Ghiara; V. Bertini; M. Voulhoux; L. Salterilli; D. Garcia; S. Ricart; R. Yanez; D. Sanchez; J. Farjas; E. Solano; L. Simonelli.

5 **Title of the work:** Studies for cost-effective Coated Conductors(CC) by using Transient Liquid Assisted Growth (TLAG-CSD)
Name of the conference: EUCAS2025
Type of event: Conference
Type of participation: Participatory - poster
City of event: Oporto, Portugal
Date of event: 21/09/2025
End date: 25/09/2025
R. Vlad; V. Bertini; A. Kethamkuzhi; C. Pop; C. Torres; O. Mola; K. Gupta; S. Ricart; E. Pach; E. Solano; X. Obradors; T. Puig.

6 **Title of the work:** Improving the cost-effectiveness of Coated Conductors through Transient Liquid Assisted Growth (TLAG)
Name of the conference: CCA2025
Type of event: Conference
Type of participation: Participatory - poster
City of event: Geneva, Switzerland
Date of event: 10/03/2025
End date: 13/03/2025
Organising entity: CERN
R. Vlad; A. Kethamkuzhi; V. Bertini; C. Pop; C. Torres; L. Saltarelli; D. Garcia; O. Mola; K. Gupta; S. Ricart; E. Pach; J. Gutierrez; E. Solano; X. Obradors; T. Puig.

7 **Title of the work:** Enhancing affordability of Coated Conductors through Transient Liquid Assisted Growth (TLAG)
Name of the conference: The Applied Superconductivity Conference (ASC 2024)
Corresponding author: Yes
City of event: Salt Lake City, United States of America
Date of event: 01/09/2024
End date: 06/09/2024
R. Vlad; A. Kethamkuzhi; V. Bertini; C. Pop; C. Torres; L. Saltarelli; D. Garcia; O. Mola; K. Gupta; S. Ricart; E. Pach; J. Gutierrez; C. Mocuta; E. Solano; X. Obradors; T. Puig.

8 **Title of the work:** Making Coated Conductors more affordable using Transient Liquid Assisted Growth
Name of the conference: EUCAS 2023
Type of event: Conference
City of event: Bologna, Italy
Date of event: 03/09/2023
End date: 07/09/2023
Vlad; S. Rasi1, C. Pop, L. Saltarelli, D. Garcia, K. Gupta; A. Kethamkuzhi, S. Ricart, E. Pach, J. Gutierrez; C. Mocuta, E. Solano, X. Obradors, T. Puig.

9 **Title of the work:** Ultrafast Transient Liquid Assisted Growth and technology transfer initiatives
Name of the conference: SAB 2022
City of event: Bellaterra, Cataluña, Spain
Date of event: 16/11/2022
End date: 18/11/2022
Organising entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
Vlad; Saltarelli; Garcia; Pop; Gupta; Rasi; Kethamkuzhi; Ricart; Obradors; Puig.

10 **Title of the work:** Manufacturing Current Flow Diverted coated conductors with enhanced normal zone propagation velocities
Name of the conference: ASC 2022
Type of event: Conference
City of event: Hawaii,
Date of event: 23/10/2022
End date: 28/10/2022
Obradors; Barusco; Granados; Puig; Lacroix; Sirois; Vlad; Calleja; Pacheco; Große; Bauer.

11 **Title of the work:** Progress on REBa2Cu3O7-x superconducting films and coated conductors by ultrafast transient liquid assisted growth (TLAG)
Name of the conference: ASC 2022
Type of event: Conference
City of event: Hawaii,
Date of event: 23/10/2022
End date: 28/10/2022
Puig; Saltarelli; Garcia; Gupta; Queralto; Rasi; Pacheco; Vlad; Kethamkuzhi; Pach; Aguilar; Sanchez; Pop; Banchewski; Gutierrez; Ricart; Farjas; Roura; Mocuta; Yanez; Obradors.

12 **Title of the work:** Ultrafast transient liquid assisted growth of YBa2Cu3O7: a new scenario for enhanced vortex pinning
Name of the conference: ASC 2022
Type of event: Conference
City of event: Hawaii,
Date of event: 23/10/2022
End date: 28/10/2022
Obradors; Puig; Banchewski; Rasi; Gupta; Queralto; Saltarelli; Garcia; Pacheco; Vlad; Kethamkuzhi; Soler; Jareno; Chamorro; Gutierrez; Ricart; Mocuta; Farjas.

13 **Title of the work:** New methodology for cost effective Coated Conductors: Transient Liquid Assisted Growth (TLAG-CSD)
Name of the conference: MRS 2022
City of event: Honolulu,
Date of event: 23/05/2022
End date: 25/05/2022
Vlad; Rasi; Garcia; Saltarelli; Gupta; Pop; Kethamkuzhi; Queralto; Ricart; Puig; Obradors.

14 **Title of the work:** Transient Liquid Assisted Growth (TLAG-CSD) – a new methodology for cost effective Coated Conductors
Name of the conference: ISS 2021
City of event: Virtual, Japan
Date of event: 30/11/2021
End date: 02/12/2021
Vlad; Rasi; Saltarelli; Gupta; Kethamkuzhi; Queralto; Ricart; Puig; Obradors.

15 **Title of the work:** Transient Liquid Assisted Growth (TLAG-CSD) – a new methodology for cost effective Coated Conductors
Name of the conference: EUCAS 2021
City of event: Moscow, Online, Russia
Date of event: 05/09/2021
End date: 09/09/2021

Vlad; Rasi; Saltarelli; Garcia; Pacheco; Gupta; Kethamkuzhi; Queralto; Farjas; Roure; Ricart; Puig; Obradors.

16 **Title of the work:** Manufacturing and Testing the Current Flow Diverted concept in coated conductors
Name of the conference: ASC2020
Corresponding author: No
City of event: Virtual,
Date of event: 23/10/2020
End date: 07/11/2020
Pedro Barusco; Xavier Granados; Xavier Obradors; Teresa Puig; Roxana Vlad; Albert Calleja; Christian Lacroix; Frédéric Sirois; Alexandre Zampa; Pascal Tixador.

17 **Title of the work:** Progress in Ultrafast Transcient Liquid Assisted Growth(TLAG) of high current density superconducting films and coated conductors
Name of the conference: ASC2020
Corresponding author: No
City of event: Virtual,
Date of event: 23/10/2020
End date: 07/11/2020
T. Puig; J. Banchewski; L. Soler; J. Jareño; S. Rasi; R. Guzmán; N. Chamorro; K. Gupta; R. Vlad; A. Queraltó; L. Saltarelli; D. Garcia; A. Pacheco; M. Sieger; S. Ricart; J. Farjas; P. Roure; C. Mocuta; R. Yanez; J. Ros; X. Obradors.

18 **Title of the work:** Current flow diverted coated conductors for advanced fault current limiters
Name of the conference: EUCAS 2019
City of event: Glasgow, United Kingdom
Date of event: 01/09/2019
End date: 05/09/2019
P. Barusco, X. Granados, C. Lacroix, F. Sirois; R. Vlad, A. Calleja, V. Grosse, M. Bauer; R. Gyuraki, M. Noe, X. Obradors, T. Puig.

19 **Title of the work:** Inkjet printing chemical-derived patterns on coated conductors as Current Flow Diverter approach for fault current limitation
Name of the conference: ASC 2018
City of event: Seattle, United States of America
Date of event: 28/10/2018
End date: 02/11/2018
Pedro Barusco; Marta Vilardell; Xavier Palmer; Roxana Vlad; Xavier Granados; Teresa Puig; Xavier Obradors; Christian Lacroix; Frederic Sirois; Veit Grosse; Eike Janocha; Markus Bauer; Albert Calleja.

20 **Title of the work:** Double-sided inkjet printed YBCO films on CZO/YSZ buffered sapphire substrates
Name of the conference: EUCAS 2017
City of event: Geneva, Switzerland
Date of event: 17/09/2017
End date: 21/09/2017
V R Vlad, B Almog, M Azoulay, M Vilardell; , A Calleja, T Puig, G Deutscher, X Obradors.

21 **Title of the work:** Multi-deposited inkjet printed YBCO on IBAD-MgO architectures for coated conductors
Name of the conference: EUCAS 2017
City of event: Geneva, Switzerland
Date of event: 17/09/2017
End date: 21/09/2017

A. Calleja, V.R. Vlad,; E. Bartolomé, M. Vilardell, A. Meledin, X.Obradors,; T. Puig, S. Ricart, A. Molodyk, G. Van Tendeloo.

22 **Title of the work:** Continuous reel-to-reel inkjet printing of Ce0.9Zr0.1O2 and YBa2Cu3O7 layers for long length production of coated conductors
Name of the conference: EUCAS 2015
City of event: Lyon, France
Date of event: 06/09/2015
End date: 11/09/2015
VILARDELL Marta, VLAD Valentina,; SINTAS Xavier, RICART Susagna, GRANADOS Xavier,; PUIG Teresa, OBRADORS Xavier, USOSKIN Alexander, CALLEJA Albert.

23 **Title of the work:** Inkjet-printed planarization layers on rough metallic tapes for cost reduction of ABAD-based coated conductors
Name of the conference: EUCAS 2015
City of event: Lyon, France
Date of event: 06/09/2015
End date: 11/09/2015
CALLEJA Albert, VILARDELL Marta, VLAD Valentina Roxana,; SINTES Xavier, RICART Susagna, GRANADOS Xavier, PUIG Teresa,; OBRADORS Xavier, KIRCHHOFF Lutz, RUTT Alexander, USOSKIN Alexander.

24 **Title of the work:** REFLECTOMETRIC ANALYSIS OF COATED CONDUCTOR ARQUITECTURES AS A USEFUL QUALITY CONTROL TOOL
Name of the conference: EUCAS 2015
City of event: Lyon, France
Date of event: 06/09/2015
End date: 11/09/2015
VLAD Valentina Roxana; VILARDELL Marta, MOLINA Edgar,; PUIG Teresa; OBRADORS Xavier; CALLEJA Albert.

25 **Title of the work:** Inkjet printed oxides for high thickness coated conductors
Name of the conference: Electroceramics XIV Conference
Type of event: Conference
City of event: Bucharest, Romania
Date of event: 15/06/2014
End date: 20/06/2014
V R Vlad, A Calleja, M Vilardell, M Aklalouch; A Meledin3, E Bartolomé, A Palau, X Granados, S Ricart,; G Van Tendeloo, X Obradors, T Puig, A Usoskin.

26 **Title of the work:** Inkjet printing multi-deposition of YBCO for ABAD-textured high thickness CCs
Name of the conference: EUCAS 2013
City of event: Genova, Italy
Date of event: 15/09/2013
End date: 19/09/2013
V. R. Vlad; A. Calleja; M. Vilardell; X. Palmer; M. Aklalouch; R. Ortigosa; E. Bartolome; A. Palau; X. Granados; S. Ricart; X. Obradors; T. Puig; A. Usoskin.

27 **Title of the work:** Inkjet Printing multi-deposition of YBCO for (Ce,Zr)O2-buffered CCs
Name of the conference: Nanoselect Annual Meeting 2013
Corresponding author: Yes
City of event: Sant Feliu de Guíxols, Cataluña, Spain

Date of event: 14/07/2013
End date: 16/07/2013
S Ricart, X Obradors, T Puig, A Usoskin; VR; A Calleja, M Vilardell, M Aklalouch,R Ortigosa, E Bartolomé, A Palau, X Granados.

28 **Title of the work:** MOD deposition of CZO single buffer layer for YBCO Coated Conductors
Name of the conference: XI Reunion Nacional de Electroceramica
Type of event: Conference
City of event: Zaragoza, Spain
Date of event: 19/06/2013
End date: 21/06/2013

29 **Title of the work:** Advanced processing of TFAYBa2Cu3O7-x layers on ABADYSZ/SS metallic substrates for coated conductors
Name of the conference: CCA2012
City of event: Heidelberg, Germany
Date of event: 13/11/2012
End date: 16/11/2012
J. Arbiol; V. R. Vlad; M. Aklalouch; A. Calleja; R. Guzman; M. Vilardell; R. Ayala; E. Bartolomé; X. Granados; S. Ricart; A. Palau; J. Gázquez; X. Obradors; T. Puig; A. Usoskin.

30 **Title of the work:** Incoherent interfaces and local lattice strains in solution-derived YBCO nanocomposites: a novel vortex pinning mechanism
Name of the conference: GEFES 2012
Type of event: Meeting
City of event: Sevilla, Spain
Date of event: 25/01/2012
End date: 27/01/2012
A Palau; A Llord{é}s; J G{á}zquez; M Coll; R Vlad; A Pomar; J Arbiol; R Guzman; S Ye; V Rouco; F Sandiumenge; S Ricart; T Puig; M Varela; D Chateigner; G Deutscher; X Obradors. 2012.

31 **Title of the work:** Processing of chemically-derived coated conductors in a reel-to-reel equipment
Name of the conference: EUCAS 2011
Type of event: Conference
City of event: The Hague,
Date of event: 19/09/2011
End date: 23/09/2011
M de Palau; A Calleja; X Granados; V R Vlad; A Sintes; X Palmer; S Ricart; T Puig; X Obradors. 2011.

32 **Title of the work:** Advances in chemical solution growth of YBa2Cu3O7 thin films and multilayers
Name of the conference: EUCAS 2011
Type of event: Conference
City of event: Hague,
Date of event: 18/09/2011
End date: 23/09/2011
X Obradors; T Puig; R Vlad; A Palau; F Mart{í}nez; S Ricart; A Pomar; K Zalamova; A Calleja; X Granados; C F S{á}nchez; M Vilardell; M de Palau; J Farjas; P Roura. "EUCAS 2011". 2011.

33 **Title of the work:** All chemical nanostructured coated conductors on ABAD Stainless Steel substrates
Name of the conference: EUCAS 2011
Type of event: Conference

City of event: The Hague,
Date of event: 18/09/2011
End date: 23/09/2011
V R Vlad; A Pomar; A Calleja; M de Palau; A Palau; P Abellan; F Sandiumenge; T Puig; O Obradors; A Usoskin. "EUCAS 2011". 2011.

34 **Title of the work:** Growth of superconducting YBCO multilayers combining chemical solution and vacuum deposition techniques
Name of the conference: EUCAS 2011
Type of event: Conference
City of event: Hague,
Date of event: 18/09/2011
End date: 23/09/2011
V R Vlad; A Pomar; A Palau; T Puig; O Obradors; A Usoskin; R H{ü}hne; B Holzapfel; B Almog; M Azoulay; G Deutscher. 2011.

35 **Title of the work:** Novel vortex pinning mechanism of solution-derived YBCO nanocomposites driven by local lattice strains
Name of the conference: Superconductivity Centenial Conference, EUCAS-ISEC-ICMC 2011
Type of event: Conference
City of event: The Hague,
Date of event: 18/09/2011
End date: 23/09/2011
T Puig; O Obradors; A Palau; A Llord{é}s; R Vlad; M Coll; J Arbiol; J G{á}zquez; R Guzman; A Pomar; P Abell{á}n; F Sandiumenge; S Ricart; V Rouco; F Martinez; S Ye; D Chataigner; M Varela; G Deutscher; J Vanacken; J Guti{é}rrez; V V Moshchalkov.

36 **Title of the work:** Transport critical current measurements in nanostructured YBCO films grown by chemical solution deposition
Name of the conference: EUCAS 2011
Type of event: Conference
City of event: The Hague,
Date of event: 18/09/2011
End date: 23/09/2011
V Rouco; A Palau; A Llord{é}s; R Vlad; F Mart{í}nez; S Ye; M Coll; S Ricart; X Obradors; T Puig. 2011.

37 **Title of the work:** Growth and characterization of chemical solution based nanostructuraed coated conductors with CeO2 cap layers
Name of the conference: Nanoselect - Annual Meeting 2011
Type of event: Seminar
City of event: Sant Feliu de Guixols, Spain
Date of event: 12/06/2011
End date: 15/06/2011
V R Vlad; A Pomar; A Palau; T Puig; O Obradors; A Usoskin; R H{ü}hne; B Holzapfel. 2011.

38 **Title of the work:** Advances in TFA YBa2Cu3O7 thin film growth with Controlled Microstructure
Name of the conference: 23rd International Symposium on Superconductivity
Type of event: Conference
City of event: Epochal, Tsukuba, Japan
Date of event: 01/11/2010
End date: 03/11/2010

X Obradors; T Puig; K Zalamova; R V Vlad; A Llord{é}s; H Chen; A Palau; F Mart{í}nez; S Ricart; A Pomar; A Calleja; X Granados; M {De Palau}.

39 **Title of the work:** Development of TFA YBCO coated conductors on ABAB YSZ substrates
Name of the conference: Applied Superconductivity conference, ASC 10
Type of event: Conference
City of event: Washington D.C., United States of America
Date of event: 01/08/2010
End date: 06/08/2010
R V Vlad; A Pomar; A Palau; A Calleja; T Puig; X Obradors; A Usoskin; B Holzapfel; R H{ü}hne.

40 **Title of the work:** Chemically grown LSMO single crystal heteroepitaxis
Name of the conference: 3rd International Conference on Nanostructured SElf-Assembly, NanoSEA 2010
Type of event: Conference
Date of event: 28/06/2010
End date: 02/07/2010
J Zabaleta; P Abell{á}n; M Jaafar; C Mont{ó}n; A J Katan; M Paradinas; A Crespi; R V Vlad; A Asenjo; C Ocal; M J Casanove; M Salmer{ó}n; F Sandiumenge; N Mestres; T Puig; X Obradors.

41 **Title of the work:** Progress in chemical solution approaches to nanocomposite superconducting films.
Name of the conference: CIMTEC 2010 12th International Ceramic Congress
Type of event: Conference
City of event: Montecatini Terme, Italy
Date of event: 06/06/2010
End date: 11/06/2010
X Obradors; T Puig; A Pomar; S Ricart; A Llord{é}s; A Palau; R V Vlad; H Chen; K Zalamova; F Sandiumenge; P Abell{á}n; F Mart{í}nez; M Gibert; X Granados.

42 **Title of the work:** Flux pinning in chemical solution YBCO films with tailored nanostructures
Name of the conference: International Conference on Superconductivity and Magnetism
Type of event: Conference
City of event: Antalya, Turkey
Date of event: 20/04/2010
End date: 25/04/2010
A Palau; C Mont{ó}n; V Rouco; R F Luccas; T Puig; P Abell{á}n; J Zabaleta; A Llord{é}s; M Gibert; A Carretero-Genevrier; F Martinez; R V Vlad; F Sandiumenge; S Ricart; N Mestres; X Granados; X Obradors.

43 **Title of the work:** Progress in Chemical Solution Approaches to Grow Nanocomposite Superconducting Films
Name of the conference: Materials Research Society Spring Meeting 2010
Type of event: Conference
City of event: San Francisco, United States of America
Date of event: 05/04/2010
End date: 09/04/2010
T Puig; A Llord{é}s; A Palau; H Chen; K Zalamova; P Abell{á}n; F Mart{í}nez-Juli{á}n; R V Vlad; M Gibert; J Zabaleta; A Pomar; F Sandiumenge; S Ricart; X Granados; N Mestres; X Obradors.

44 **Title of the work:** Single Ce0.9Zr0.1O2-d Buffer Architecture Coated Conductors Based on MOD Method
Name of the conference: Materials Research Society Spring Meeting 2010
Type of event: Conference
City of event: San Francisco, United States of America

Date of event: 05/04/2010
End date: 09/04/2010
R V Vlad; A Pomar; A Llord{é}s; A Palau; T Puig; X Obradors; A Usoskin; R H{ü}hne; B Holzapfel.

45 **Title of the work:** Synthesis and Self-assembled of Single-crystalline La0.3Sr0.7MnO3 Nanowires From Template Directed Chemical Solution Deposition
Name of the conference: Materials Research Society Spring Meeting 2010
Type of event: Conference
City of event: San Francisco, United States of America
Date of event: 05/04/2010
End date: 09/04/2010
A Carretero-Genevrier; N Mestres; T Puig; R V Vlad; J Or{ó}; A Palau; C Mont{ó}n; X Obradors; E Ferain; C Ocal.

46 **Title of the work:** Chemically Grown La0.7Sr0.3MnO3 Single Crystal Heteroepitaxies
Name of the conference: VI Reunión del Grupo Especializado de Física de Estado Sólido, GEFES 2010
Type of event: Conference
City of event: Zaragoza, Spain
Date of event: 03/02/2010
End date: 05/02/2010
J Zabaleta; P Abell{á}n; M Jaafar; C Mont{ó}n; A J Katan; M Paradinas; A Crespi; R V Vlad; A Asenjo; C Ocal; M J Casanove; M Salmer{ó}n; F Sandiumenge; N Mestres; T Puig; X Obradors.

47 **Title of the work:** MOD Deposition of Ce0.9Zr0.1O2-y Single Buffer Layer for YBa2Cu3O7-x Coated Conductors
Name of the conference: International Workshop on Coated Conductors for Applications, CCA 2009
Type of event: Traning Session
City of event: Barcelona, Spain
Date of event: 22/11/2009
End date: 24/11/2009
R V Vlad; A Pomar; A Llord{é}s; A Palau; T Puig; X Obradors; A Usoskin.

48 **Title of the work:** Microstrain influence on vortex pinning in YBCO nanocomposites grown from metal organic solutions
Name of the conference: International Workshop on Coated Conductors for Applications, CCA 2009
Type of event: Traning Session
City of event: Barcelona, Spain
Date of event: 22/11/2009
End date: 24/11/2009
A Pomar; T Puig; A Llord{é}s; A Palau; R V Vlad; J G{á}zquez; P Abell{á}n; J Guti{é}rrez; F Sandiumenge; S Ricart; X Obradors; D Grebille; D Chateigner.

49 **Title of the work:** Chemically grown self-assemble La0.7Sr0.3MnO3/single crystal heteroepitaxies
Name of the conference: 16th Workshop on Oxide Electronics, WOE-2009
Type of event: Traning Session
City of event: Tarragona, Spain
Date of event: 04/10/2009
End date: 07/10/2009
J Zabaleta; P Abell{á}n; M Jaafar; C Mont{ó}n; A Crespi; R V Vlad; A Asenjo; M J Casanove; F Sandiumenge; N Mestres; T Puig; X Obradors.

50 **Title of the work:** Coated Conductors with epitaxial MOD-(Zr,Ce)O2 as cap layer
Name of the conference: 9th European Conference on Applied Superconductivity EUCAS-2009
Type of event: Conference
City of event: Dresden, Germany
Date of event: 13/09/2009
End date: 17/09/2009
R V Vlad; A Pomar; A Llord{é}s; A Palau; P Abell{á}n; T Puig; X Obradors; F Sandiumenge; A Usoskin; M J Casanove.

51 **Title of the work:** Polymer-assisted CeO2 buffer layer grown on single crystal and metallic substrates
Name of the conference: 9th European Conference on Applied Superconductivity EUCAS-2009
Type of event: Conference
City of event: Dresden, Germany
Date of event: 13/09/2009
End date: 17/09/2009
A Calleja; G Busato; R V Vlad; A Pomar; A Usoskin; N Mestres; T Puig; X Obradors.

52 **Title of the work:** Avances recientes en cintas superconductoras multicapa mediante deposici{ó}n de soluciones qu{í}micas}
Name of the conference: IX Reunion Nacional Electrocerámica 2009
Type of event: Conference
City of event: Madrid, Spain
Date of event: 28/06/2009
End date: 30/06/2009
A Calleja; R V Vlad; K Zalamova; S Ricart; A Pomar; X Granados; T Puig; X Obradors.

53 **Title of the work:** All Chemical High Critical Current Coated Conductors From Modified Anhydrous TFA Precursor Solution
Name of the conference: Materials Research Society (MRS) Spring Meeting 2009
Type of event: Conference
Date of event: 13/04/2009
End date: 17/04/2009
S Ricart; N Rom{à}; A Llord{é}s; F Mart{í}nez-Juli{á}n; X Palmer; R V Vlad; A Calleja; A Pomar; T Puig; X Obradors.

54 **Title of the work:** Chemical solution approaches to self-assembled and nanocomposite superconducting films
Name of the conference: VII Brazilian School of Superconductivity and Woekshop on Frontiers of Superconductivity and Magnetism - Materials, Mechanisms and Applications
Type of event: Conference
City of event: Pernambuco, Brazil
Date of event: 08/12/2008
End date: 12/12/2008
X Obradors; T Puig; A Pomar; F Sandiumenge; N Mestres; S Ricart; M Gibert; A Llord{é}s; A Palau; R V Vlad; M Coll; A Carretero-Genevrier; N Rom{à}; J G{á}zquez; J Guti{é}rrez; K Zalamova; C Moreno; A Ruyter; P Abell{á}n; J Zabaleta; F Mart{í}nez.

55 **Title of the work:** Enhanced vortex pinning in nanostructured YBCO-BZO coated conductors from chemical solution deposition
Name of the conference: Applied Superconductivity Conference - ASC 2008
Type of event: Conference
City of event: Chicago, United States of America

Date of event: 17/08/2008
End date: 22/08/2008
A Pomar; R V Vlad; A Llord{é}s; A Palau; J Guti{é}rrez; F Sandiumenge; S Ricart; T Puig; X Obradors; A Usoskin.

56 **Title of the work:** Nucleation and growth of chemical solution deposited TFAYBCO/MOD-(Ce,Zr)O2/ABAD-YSZ/SS coated conductors
Name of the conference: Applied Superconductivity Conference - ASC 2008
Type of event: Conference
City of event: Chicago, United States of America
Date of event: 17/08/2008
End date: 22/08/2008
R V Vlad; K Zalamova; M Coll; T Puig; X Obradors; A Usoskin.

57 **Title of the work:** Vortex pinning in chemical solution nanostructured YBCO films
Name of the conference: Materials Research Society (MRS) Spring Meeting 2008
Type of event: Conference
City of event: San Francisco, United States of America
Date of event: 24/03/2008
End date: 28/03/2008
X Obradors; T Puig; J Guti{é}rrez; A Pomar; A Llord{é}s; M Gibert; N Rom{à}; J G{á}zquez; M Coll; K Zalamova; P Abell{á}n; R V Vlad; S Ricart; F Sandiumenge; N Mestres.

58 **Title of the work:** Nucleation and growth of TFA-YBCO films for all chemical YBCO/CeO2/La2Zr2O7/Ni RABiTS coated conductors
Name of the conference: V Reunión del Grupo Especializado de Física del Estado Sólido (GEFES)
Type of event: Traning Session
City of event: Santiago de Compostela, Spain
Date of event: 06/02/2008
End date: 08/02/2008
K Zalamoza; R V Vlad; A Pomar; T Puig; X Obradors; M Rikel; B Hoppe; J Bock.

59 **Title of the work:** All solution CeO2 based coated conductors
Name of the conference: Energy Challenges.Material challenges for future applications in energy and environment, XaRMAE
Type of event: Traning Session
City of event: Barcelona, Spain
Date of event: 17/12/2007
End date: 18/12/2007
R V Vlad; K Zalamova; M Coll; A Pomar; T Puig; X Obradors; M Rikel; J Bock; A Usoskin.

60 **Title of the work:** Control of nucleation and interfacial reactivity in chemical based YBCO/CeO2 multilayers
Name of the conference: Energy Challenges.Material challenges for future applications in energy and environment, XaRMAE
Type of event: Traning Session
City of event: Barcelona, Spain
Date of event: 17/12/2007
End date: 18/12/2007
K Zalamova; R V Vlad; A Pomar; T Puig; X Obradors; M Rikel; J Bock.

61 **Title of the work:** Multilayers of all chemical YBCO/CeO2/La2Zr2O7/Ni RABiT coated conductors
Name of the conference: 8th International Conference on Applied Superconductivity (EUCAS)
City of event: Brussels, Belgium
Date of event: 16/09/2007
End date: 20/09/2007
J. Bock; M. Rikel; X. Obradors; T. Puig; A. Pomar; K. Zalamova; M. Coll; R. V. Vlad.

62 **Title of the work:** Chemically Grown YBCO Superconducting Multilayers
Name of the conference: International Conference on Coated Conductors for Applications, CCA2008
Type of event: Conference
X Obradors; R V Vlad; M Coll; T Puig; A Pomar; J Guti{é}rrez; A Palau; S Ricart; P Abell{á}n; F Sandiumenge; K Zalamova; R H{ü}hne; B Holzapfel; Y Morrilla; J Garc{í}a-L{ó}pez; A Usoskin.

63 **Title of the work:** Chemically Grown YBCO Superconducting Multilayers
Name of the conference: International Conference on Coated Conductors for Applications, CCA2008
Type of event: Conference
X Obradors; R V Vlad; M Coll; T Puig; A Pomar; J Guti{é}rrez; A Palau; S Ricart; P Abell{á}n; F Sandiumenge; K Zalamova; R H{ü}hne; B Holzapfel; Y Morrilla; J Garc{í}a-L{ó}pez; A Usoskin.

64 **Title of the work:** Engineered interfaces in chemically grown YBCO superconducting multilayers: influence on critical currents
Name of the conference: International Workshop on Coated Conductors for Applications 2007 (CCA-2007)
Type of event: Traning Session
X Obradors; M Coll; M Gibert; A Pomar; C Moreno; J Guti{é}rrez; N Rom{à}; J G{á}zquez; S Ricart; P Abell{á}n; A Benedetti; F Sandiumenge; N Mestres; K Zalamova; R V Vlad.

65 **Title of the work:** Progress in chemical solution approaches to nanocomposite superconducting films
Name of the conference: International Symposium on Superconductivity 2009
Type of event: Seminar
X Obradors; T Puig; A Pomar; S Ricart; A Llord{é}s; A Palau; R V Vlad; H Chen; K Zalamova; F Sandiumenge; P Abell{á}n; F Mart{í}nez-Juli{á}n; M Gibert; X Granados.

Other achievements

Stays in public or private R&D centres

1 **Entity:** IFW Dresden
City of entity: Dresden, Germany
Start-End date: 07/10/2009 - 20/11/2009 **Duration:** 2 months
Goals of the stay: Doctorate
Provable tasks: Marie Curie research stage

2 **Entity:** ENCIACET
Faculty, institute or centre: Institut Polytehnique de Toulouse
City of entity: Toulouse, France
Start-End date: 01/03/2005 - 30/06/2005 **Duration:** 4 months
Goals of the stay: Master
Provable tasks: Practical project of my Master

Obtained grants and scholarships

1 **Name of the grant:** Torres Quevedo Grant
Awarding entity: AEI
Conferral date: 01/03/2011
End date: 28/02/2014
Entity where activity was carried out: OXOLUTIA S-L, CSIC's spin off

2 **Name of the grant:** Marie Curie Grant - UE NESPA project
Aims: PhD
Awarding entity: UE
Conferral date: 04/10/2007
End date: 30/09/2010

3 **Name of the grant:** Pre-doctoral fellowship from CSIC
Aims: Pre-doctoral
Awarding entity: ICMAB-CSIC
Conferral date: 01/12/2006
End date: 03/10/2007
Entity where activity was carried out: Instituto de Ciencia de los Materiales de Barcelona

4 **Name of the grant:** ERASMUS fellowship
Aims: Master
Awarding entity: University of Pitesti
Conferral date: 01/03/2005 **Duration:** 4 months
End date: 30/06/2005
Entity where activity was carried out: INP Toulouse

Prizes, mentions and distinctions

1 **Description:** 1st prize in the Scientific Category of the FOTICMAB photography contest, 2015, Barcelona, Spain
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
City awarding entity: Bellaterra, Spain
Conferral date: 2018

2 **Description:** 1st prize in the Scientific Category of the FOTICMAB photography contest, 2015, Barcelona, Spain
Awarding entity: Instituto de Ciencia de los Materiales de Barcelona **Type of entity:** State agency
City awarding entity: Bellaterra, Spain
Conferral date: 2015

3 **Description:** 3rd Prize Award for Oral Presentations at the MRS Spring 2010 Meeting, 2010, San Francisco, USA
Awarding entity: MRS Spring 2010
City awarding entity: San Francisco, United States of America

Conferral date: 05/05/2010

4 **Description:** 2nd Prize at the “Session of Scientific Communications” for students organized by University of Pitesti, with the paper: Métodos Modernos para la Investigación de las Propiedades Físicas de los Combustibles Nucleares
Awarding entity: University of Pitesti
City awarding entity: Pitesti, Romania
Conferral date: 26/05/2002

5 **Description:** 3rd Prize Award in the “Session of Scientific Communications” for students organized by University of Pitesti, Romania, with the paper: Quantic Theory, 2000
Awarding entity: University of Pitesti
City awarding entity: Pitesti, Romania
Conferral date: 24/05/2002