# Curriculum Vitae Joan Rosell-Llompart

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## EDUCATION

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|---|---|---|
| PhD | 1994 | **Yale University**, New Haven CT, USA – Department of Mechanical Engineering[1] |
| MPhil | 1994 | **Yale University**, New Haven CT, USA |
| MSc | 1993 | **Yale University**, New Haven CT, USA – Department of Mechanical Engineering |
| Tesina | 1988 | **Universitat Autònoma de Barcelona**, Spain[2] |
| BSc | 1987 | **Universitat Autònoma de Barcelona**, Spain (*Licenciatura en Ciencias Físicas*[3]) |

## PROFESSIONAL EXPERIENCE

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| 2004/09 – Present | **ICREA Research Professor** at **Universitat Rovira i Virgili** (Tarragona, Spain)[4], in the Department of Chemical Engineering. |
| 2004/09 – Present | **Associate Professor** (part-time teaching) at **Universitat Rovira i Virgili**, in the Department of Chemical Engineering. |
| 1996/12 – 2004/06 | **Scientist** and **Research-Engineering Manager** in the R&D Department of **Aradigm Corporation** (Hayward CA, USA). |
| 1994/02 – 1996/11 | **Postdoctoral Associate** Chemistry Department at **Virginia Commonwealth University**, in the Department of Chemistry (Richmond VA, USA).[5] |
| 1988/10 – 1989/07 | **Graduate Student** at **UNED, Universidad Nacional de Educación a Distancia,** Spain's Open University (Madrid), in the Departamento de Física Fundamental. |
| 1986/06 – 1994/01 | **Research Assistant** at **Yale University** (New Haven CT, USA), in the Mechanical Engineering Department. |

1 Thesis: *Size Characterization in Electrosprays of Submicron Droplets.* Advisor: Prof. Juan Fernández de la Mora.
2 Thesis project (Tesina): *Experiments on Molecule Focusing in Seeded Supersonic Jets.* Advisor: Prof. Juan Fernández de la Mora (Yale University). Equivalent to a MSc, at the time when MSc programs didn't exist in Spain.
3 University 5-year program in Physics (equivalent but, in fact, superior to BSc).
4 ICREA is the Catalan Institution for Research and Advanced Studies in Barcelona, Spain.
5 With Prof. John B. Fenn, Nobel Laureate in Chemistry, 2002.

## APPOINTMENTS

**Since 2023** **Aerosol Research (Copernicus), member of the Editorial Board and Topic Editor**. https://www.aerosol-research.net/editorial_board.html

**Since 2019** **Journal of Aerosol Science (Elsevier), member of the Editorial Board.** https://www.journals.elsevier.com/journal-of-aerosol-science/editorial-board

**Since 2010** **Director of the DEW, the *Droplets, intErfaces, and floWs laboratory* at Universitat Rovira i Virgili.** Founded in April 2010 by Prof. Jordi Grifoll and J. Rosell-Llompart, DEW focuses on nanofluidics, electro-hydrodynamics (EHD), sprays dynamics, and nanomaterials production by EHD, particularly by electrospinning and electrospray. https://www.dew.recerca.urv.cat/ca/

**2023-24** **Scientific and Organizing Committee for the 7$^{th}$ *European Symposium on Electrohydrodynamic Atomization and Electrospinning ESEE2024*, 24-26 April 2024, Leeuwarden, THE NETHERLANDS** (Organized by NHL Stenden University of Applied Sciences and by the European EHDA Group). https://www.esee2024.nl/

**2022-23** **Scientific and Organizing Committee for the 6$^{th}$ *European Symposium on Electrohydrodynamic Atomization and Electrospinning ESEE2023*, 10-12 May 2023, Krakow, POLAND** (Organized by the AGH University of Science and Technology and the European EHDA Group). https://sites.google.com/view/esee2023/home

**2021-22** **Scientific and Organizing Committee for the *5$^{th}$ European Symposium on Electrohydrodynamic Atomization and Electrospinning 2022*, 27-29/4/2022, Naples, ITALY** (Organized by Università degli Studi di Napoli Federico II, and the European EHDA Group). www.sites.google.com/view/ehdaes2022

**2020-21** **Scientific and Organizing Committee for the *European Workshop on Electrohydrodynamic Atomization and Electrospinning*, 9-10 June 2021, Online** (Organized by Università degli Studi di Napoli Federico II, and the European EHDA Group).

**2019-20** **Organizing Chair for the *European Workshop on Electrohydrodynamic Atomization*, 12-14 February 2020, Tarragona, Spain.** Organized by the University Rovira i Virgili and the European EHDA Group. sites.google.com/view/ehdatarragona2020/

**2018** **AECyTA Advisory Committee member for the *Aerosol Technology AT2018* conference, Bilbo/Bilbao (Spain), June 18-20, 2018.** www.dfmf.uned.es/AT2018

**2017** **Scientific Committee member and organizing chair of special session for the *European Aerosol Conference EAC2017*, Zürich (Switzerland), August 27 - September 1, 2017.** – Special session #5: ELECTROHYDRODYNAMIC ATOMIZATION (EHDA) TECHNOLOGIES: FROM FUNDAMENTALS TO APPLICATION, with co-chair Prof. Luewton Lemos F. Agostinho, NHL Stenden University of Applied Sciences (Leeuwarden, The Netherlands). www.gaef.de/EAC2017/

**2017** **Organizing Chair** for the ***Workshop on Fluid Mechanics 2017*, July 20-21, 2017, Tarragona, Spain** (under the auspices of the Red de Excelencia "Red Nacional para el Desarrollo de la Microfluídica"), with co-chair Prof. Francisco Huera (URV, Tarragona).

**2015-8** **Scientific Committee member** for the ***3$^{rd}$, 4$^{th}$, 5$^{th}$, and 6$^{th}$ Iberian Congress on Aerosol Science and Technology*, RICTA congresses.** www.ricta2017.org; ricta2016.web.ua.pt; seneca.umh.es/ricta2015; www.dfmf.uned.es/RICTA2018

**2014** **Organizing Chair** for the ***2$^{nd}$ Iberian Congress on Aerosol Science and Technology*, RICTA, Tarragona, Spain.** Appointed by the Spanish Association for Aerosol Science and Technology, the AECyTA, to organize, along with co-chair Prof. Jordi Grifoll (URV,

Tarragona), the first edition in Spain of this congress. wwwa.fundacio.urv.cat/congressos/ricta

**2009 – 12** **Director of the *Advanced Technology and Innovation Center* (ATIC), Universitat Rovira i Virgili.** ATIC is a technology transfer center of the Universitat Rovira i Virgili (www.atic-innovacio.com). It has held the TECNIO seal of the Generalitat de Catalunya since its founding in late 2009. The center involves about 25 Ph.D. researchers from 7 research groups of the URV.

**2009 – 13** **Director of the *Transport Phenomena research group* (FeT), Universitat Rovira i Virgili.** Founded by Prof. Francesc Giralt Prat in 1995, FeT was a 'Consolidated research group' of the Catalan Government until 2013, when it was dismantled. FeT comprised eight university professors, who carried research in fluid dynamics, nanofluidics, transport in porous media, artificial intelligence, water engineering, nanotoxicity, and bioinformatics.

**2009** **Director of the *Chemical Technology Innovation Center* (CiTQ), Universitat Rovira i Virgili.** CiTQ was a technology transfer center of the Universitat Rovira i Virgili which belonged to the IT-network of technology transfer centers of the Generalitat de Catalunya. In 2009 CiTQ merged with the DINAMIC center to become the ATIC center.

## HONORS

2004 Marie Curie Fellow, 2004, European Commission (Grant: MIRG-CT-2004-511310)

1995 Sigma Xi, Member, The Scientific Research Honor Society (www.sigmaxi.org)

1989 Postgraduate fellowship, CICYT (Spanish Government)

## INVITED TALKS

"Advances and Aspirations in Electro-Hydrodynamic Research" [talk]. 2005 Summer School of the Max Planck Institute of Colloids and Interfaces (Tarragona, Spain, September 29-October 6, 2005).

"Electro-Hydrodynamic Micro-Threads" [seminar]. CICbiomaGUNE, the Center for Cooperative Research in Biomaterials (Donostia – San Sebastián, Spain, May, 3, 2007).

"A Jet Set of Mists, Films, and Webs" [seminar]. Multidisciplinary Seminars campus series. Universitat Rovira i Virgili (Tarragona, Spain, December 5, 2008).

"Electrospray Atomization and Related Topics (Atomización Electrostática y Temas Afines)" [talk]. 3ª Escuela de Verano de la Asociación Española de Ciencia y Tecnología de Aerosoles (CIEMAT, Madrid, Spain, June 27, 2011).

"Electrospray Technology" [Tutorial TU02]. 9th International Aerosol Conference, IAC-2014 (Busan, Korea, August 28, 2014).

"Perfecting Electrospray Systems for Droplets Production. An Account of Engineering Challenges" [talk]. Symposium of the European Electrohydrodynamic Atomization Group (Hogeschool Van Hall Larenstein, Leeuwarden, The Netherlands, February 16, 2018).

"Electrosprays for the Production of Nanoparticles" [talk]. 2nd Symposium of the European Electrohydrodynamic Atomization Group (Universidad de Málaga, Málaga, Spain, February 14, 2019).

Three tutorials at the 2020 European Workshop on Electrohydrodynamic Atomization (Universitat Rovira i Virgili, Tarragona, Spain, Feb. 12, 2020). (See CONTRIBUTIONS AT CONGRESSES below.)

"Learning about jet development and breakup from electrospray residues" [talk]. 5th European Symposium on Electrohydrodynamic Atomization and Electrospinning 2022 (Università degli Studi di Napoli Federico II, Napoli, Italy, April 28, 2022).

"A brief long walk through electrospray physics research" [plenary address]. 6th European Symposium on Electrohydrodynamic Atomization and Electrospinning, ESEE2023 (AGH University of Science and Technology, Kraków, Poland, May 10, 2023) www.ESEE2023.agh.edu.pl.

"Electrosprays, the unique aerosols emitted by conical liquid menisci" [plenary address]. European Aerosol Conference 2023, EAC-2023 (Málaga, Spain, September 7, 2023). https://www.dfmf.uned.es/EAC2023/index.php?page=plenaries

"In-situ discharging of electrospray using DC coronas" [guest speaker]. 7th European Symposium on Electrohydrodynamic Atomization and Electrospinning, ESEE2024 (NHL Stenden University of Applied Sciences, Leeuwarden, The Netherlands, April 24, 2024). https://www.esee2024.nl/

## PUBLICATIONS

### Peer-reviewed articles

1. Fernández de la Mora J, Rosell-Llompart J (1989) Aerodynamic Focusing of Heavy Molecules in Seeded Supersonic Jets. *Journal of Chemical Physics*, 91(4), 2603-2615. DOI:10.1063/1.456969 http://dx.doi.org/10.1063/1.456969
2. Fernández de la Mora J, Rosell-Llompart J, Riesco-Chueca P (1989) Aerodynamic Focusing of Particles and Molecules in Seeded Supersonic Jets. *Progress in Astronautics and Aeronautics*, 117, 247-277. (ISBN 0-930403-54-1.) Invited Paper.
3. Fernández de la Mora J, Navascués J, Fernández F, Rosell-Llompart J (1990) Generation of Submicron Monodisperse Aerosols in Electrosprays. *Journal of Aerosol Science*, 21(S1), 673-676. DOI:10.1016/0021-8502(90)90332-R http://dx.doi.org/10.1016/0021-8502(90)90332-R
4. Fernández Feria R, Riesco-Chueca P, Rosell-Llompart J, O'Brien J, Fernández de la Mora J (1991) Brownian-Motion Limited Aerodynamic Focusing of Heavy Molecules. In *Rarefied Gas Dynamics*, A. E. Beylich, Ed. (VCH, Weinheim) pp. 214-221.
5. Rosell-Llompart J, Fernández de la Mora J (1991) Ionization of $CBr_4$ Molecules by Impact on 'Dirty' W Surfaces from Un-Skimmed $H_2$ Hypersonic Jets at Kinetic Energies up to 8 eV. In *Rarefied Gas Dynamics*, A. E. Beylich, Ed. (VCH, Weinheim) pp. 1345-1352.
6. Rosell-Llompart J, Fernández de la Mora J (1993) Minimization of the diffusive broadening of ultrafine particles in differential mobility analyzers. In *Synthesis and Measurement of Ultrafine Particles*, J. Marijnissen and S. Pratsinis, Eds. (Delft University Press, Delft, ISBN: 90-6275-896-7) pp. 109-114.
7. Loscertales IG, Rosell-Llompart J, Fernández de la Mora J (1993) 04 O 04 Generation of Monodisperse Nanoparticles in Electrosprays. *Journal of Aerosol Science*, 24 (SUPPL. 1), S25–S26. DOI:10.1016/0021-8502(93)90105-I https://doi.org/10.1016/0021-8502(93)90105-I

8. Rosell-Llompart J, Fernández de la Mora J (1994) Generation of Monodisperse Droplets 0.3 to 4 µm in Diameter from Electrified Cone-Jets of Highly Conducting and Viscous Liquids. *Journal of Aerosol Science*, 25(6), 1093-1119. DOI:10.1016/0021-8502(94)90204-6
http://dx.doi.org/10.1016/0021-8502(94)90204-6

9. Fenn JB, Rosell J, Nohmi T, Shen S, Banks Jr. JF (1996) Electrospray Ion Formation: Desorption versus Desertion. *American Chemical Society Symposium Series*, 619, ch. 3, pp. 60-80. (ISBN13: 9780841233782) DOI:10.1021/bk-1995-0619.ch003
http://dx.doi.org/10.1021/bk-1995-0619.ch003

10. Rosell-Llompart J, Loscertales IG, Bingham D, Fernández de la Mora J (1996) Sizing Nanoparticles and Ions with a Short Differential Mobility Analyzer. *Journal of Aerosol Science*, 27(5), 695-719. DOI:10.1016/0021-8502(96)00016-X
http://dx.doi.org/10.1016/0021-8502(96)00016-X

11. de Juan L, Brown S, Serageldin K, Davis N, Rosell J, Lazcano J, Fernández de la Mora J (1997) Electrostatic Effects in Inertial Impactors. *Journal of Aerosol Science*, 28(6), 1029-1048. DOI:10.1016/S0021-8502(96)00490-9
http://dx.doi.org/10.1016/S0021-8502(96)00490-9

12. Fenn JB, Rosell J, Meng CK (1997) In Electrospray Ionization, How Much Pull Does an Ion Need to Escape its Droplet Prison? *Journal of the American Society for Mass Spectrometry*, 8(11), 1147-1157. DOI:10.1016/S1044-0305(97)00161-X
http://dx.doi.org/10.1016/S1044-0305(97)00161-X

13. Kiselev P, Rosell J, Fenn JB (1997) Determining the Composition of Liquid Droplets in a Gas of Different Composition. *Industrial & Engineering Chemistry Research*, 36(8), 3081-3084. DOI:10.1021/ie960636s
http://dx.doi.org/10.1021/ie960636s

14. Zhan D, Rosell J, Fenn JB (1998) Solvation Studies of Electrospray Ions - Method and Early Results. *Journal of the American Society for Mass Spectrometry*, 9(12), 1241-1247. DOI:10.1016/S1044-0305(98)00107-X
http://dx.doi.org/10.1016/S1044-0305(98)00107-X

15. Fernández de la Mora J, de Juan L, Eichler T, Rosell J (1998) Differential Mobility Analysis of Molecular Ions and Nanometer Particles. *TrAC – Trends in Analytical Chemistry*, 17(6), 328-339. DOI:10.1016/S0165-9936(98)00039-9
http://dx.doi.org/10.1016/S0165-9936(98)00039-9

16. Schuster JA, Farr SJ, Cipolla DC, Wilbanks T, Rosell J, Lloyd P, Gonda I (1998) Design and Performance Validation of a Highly Efficient and Reproducible Compact Aerosol Delivery System: AER$_x$™. In *Respiratory Drug Delivery VI*, vol. 1, R. N. Dalby, P. R. Byron and S. J. Farr, Eds. (ISBN: 1-57491-076-0) pp. 83-90.
http://www.rddonline.com/publications/articles/searchresults.php?conf=6
http://www.rddonline.com/publications/articles/article.php?ArticleID=317&return=1

17. Rosell J, Schuster J, Gonda I, Liu K (2000) Electrostatic Charge in AER$_x$ Aerosols. In *Drug Delivery to the Lungs XI* (The Aerosol Society, London, ISBN: 0-9529777-5-3) pp. 64-67.

18. Gomez Moreno FJ, Rosell-Llompart J, Fernández de la Mora J (2002) Turbulent Transition in Impactor Jets and its Effects on Impactor Resolution. *Journal of Aerosol Science*, 33(3), 459-476. DOI:10.1016/S0021-8502(01)00193-8

http://dx.doi.org/10.1016/S0021-8502(01)00193-8

19. Noymer P, Schuster JA, Holst P, Rosell J, Ament B, Wilbanks T, Srinivasan S, Morishige R, Farr SJ (2004) AERx®-Essence™: Efficiency and Breath Control without Electronics. In *Respiratory Drug Delivery IX*, vol. 1, R. N. Dalby, P. R. Byron, J. Peart, J. D. Suman and S. J. Farr, Eds. (ISBN: 1-930114-63X) pp. 255-262.
http://www.rddonline.com/publications/articles/searchresults.php?conf=9
http://www.rddonline.com/publications/articles/article.php?ArticleID=641&return=1

20. Rosell-Llompart J, Gañán Calvo A (2008) Turbulence in Pneumatic Flow Focusing and Flow Blurring Regimes. *Physical Review E*, 77(3), 036321. DOI:10.1103/PhysRevE.77.036321
http://dx.doi.org/10.1103/PhysRevE.77.036321

21. Uecker J, Tepper GC, Rosell-Llompart J (2010) Ion-Assisted Collection of Nylon-4,6 Electrospun Nanofibers. *Polymer*, 51(22), 5221-5228. DOI:10.1016/j.polymer.2010.08.057
http://dx.doi.org/10.1016/j.polymer.2010.08.057

22. Grifoll J, Kumar AA, Rosell-Llompart J (2011) Numerical Simulation of Electrospray Droplets Dynamics. In *RECTA V*, CIEMAT, Madrid. (ISBN: 978-84-7834-662-2.)

23. Grifoll J, Rosell-Llompart J (2012) Efficient Lagrangian Simulation of Electrospray Droplets Dynamics. *Journal of Aerosol Science*, 47, 78-93. DOI:10.1016/j.jaerosci.2012.01.001
http://dx.doi.org/10.1016/j.jaerosci.2012.01.001

24. Kiselev P, Rosell-Llompart J (2012) Highly Aligned Electrospun Nanofibers by Elimination of the Whipping Motion. *Journal of Applied Polymer Science*, 125(3), 2433-2441. DOI:10.1002/app.36519
http://dx.doi.org/10.1002/app.36519

25. Bodnár E, Rosell-Llompart J (2013) Growth Dynamics of Granular Films Produced by Electrospray. *Journal of Colloid and Interface Science*, 407, 536-545. DOI:10.1016/j.jcis.2013.06.013
http://dx.doi.org/10.1016/j.jcis.2013.06.013

26. Arumugham-Achari AK, Grifoll J, Rosell-Llompart J (2013) Two-Way Coupled Numerical Simulation of Electrospray with Induced Gas Flow. *Journal of Aerosol Science*, 65, 121-133. DOI:10.1016/j.jaerosci.2013.07.005
http://dx.doi.org/10.1016/j.jaerosci.2013.07.005

27. Grifoll J, Rosell-Llompart J (2014) Continuous Droplets' Charge Method for the Lagrangian Simulation of Electrostatic Sprays. *Journal of Electrostatics*, 72(5), 357-364. DOI:10.1016/j.elstat.2014.06.011
http://dx.doi.org/10.1016/j.elstat.2014.06.011

28. Modesto-López LB, Chimentão RJ, Álvarez MG, Rosell-Llompart J, Medina F, Llorca J (2014) Direct Growth of Hydrotalcite Nanolayers on Carbon Fibers by Electrospinning. *Applied Clay Science*, 101, 461-467. DOI:10.1016/j.clay.2014.07.037
http://dx.doi.org/10.1016/j.clay.2014.07.037

29. Arumugham-Achari AK, Grifoll J, Rosell-Llompart J (2015) A Comprehensive Framework for the Numerical Simulation of Evaporating Electrosprays. *Aerosol Science and Technology*, 49(6), 436-448. DOI:10.1080/02786826.2015.1039639
http://dx.doi.org/10.1080/02786826.2015.1039639

30. Serres JM, Mateos X, Loiko P, Rosell-Llompart J, Modesto-López LB, Yumashev KV, Griebner U, Petrov V, Carvajal JJ, Aguiló M, Díaz F (2015) Oriented Single-Walled Carbon Nanotubes as Saturable

Absorber for Passive Q-Switching of a Tm:KLuW Microchip Laser. In *Advanced Solid State Lasers, OSA Technical Digest* (ISBN: 978-1-943580-02-6) paper AW1A.3. DOI:10.1364/ASSL.2015.AW1A.3

http://dx.doi.org/10.1364/ASSL.2015.AW1A.3

31. Álvarez MG, Chimentão RJ, Tichit D, Santos JBO, Dafinov A, Modesto-López LB, Rosell-Llompart J, Güell EJ, Gispert-Guirado F, Llorca J, Medina F (2016) Synthesis of Tungsten Carbide on Al-SBA-15 Mesoporous Materials by Carburization. *Microporous and Mesoporous Materials*, 219, 19-28. DOI:10.1016/j.micromeso.2015.07.018

    http://dx.doi.org/10.1016/j.micromeso.2015.07.018

32. Rosell-Llompart J, Grifoll J, Loscertales IG (2018) Electrosprays in the cone-jet mode: From Taylor cone formation to spray development. *Journal of Aerosol Science,* 125, 2-31. Invited Review. DOI:10.1016/j.jaerosci.2018.04.008

    https://doi.org/10.1016/j.jaerosci.2018.04.008

33. Bodnár E, Grifoll J, Rosell-Llompart J (2018) Polymer solution electrospraying: A tool for engineering particles and films with controlled morphology. *Journal of Aerosol Science*, 125, 93-118. Invited Review. DOI:10.1016/j.jaerosci.2018.04.012

    https://doi.org/10.1016/j.jaerosci.2018.04.012

34. Sochorakis N, Grifoll J, Rosell-Llompart J (2019) Scaling up of extractor-free electrosprays in linear arrays. *Chemical Engineering Science*, 195, 281–298. DOI:10.1016/j.ces.2018.09.006

    https://doi.org/10.1016/j.ces.2018.09.006

35. Liashenko I, Rosell-Llompart J, Cabot A (2020) Ultrafast 3D printing with submicrometer features using electrostatic jet deflection. *Nature Communications,* 11(1), 753 (9pp). DOI:10.1038/s41467-020-14557-w

    https://doi.org/10.1038/s41467-020-14557-w

36. García de Abajo FJ, Hernández RJ, Kaminer I, Meyerhans A, Rosell-Llompart J, Sanchez-Elsner T (2020) Back to Normal: An Old Physics Route to Reduce SARS-CoV-2 Transmission in Indoor Spaces. *ACS Nano,* 14(7), 7704–7713. DOI:10.1021/acsnano.0c04596

    https://doi.org/10.1021/acsnano.0c04596

37. Ura DP, Rosell-Llompart J, Zaszczyńska A, Vasilyev G, Gradys A, Szewczyk PK, Knapczyk-Korczak J, Avrahami R, Šišková AO, Arinstein A, Sajkiewicz P, Zussman E, Stachewicz U (2020) The role of electrical polarity in electrospinning and on the mechanical and structural properties of as-spun fibers. *Materials*, 13(18), 4169 (18pp). DOI:10.3390/ma13184169

    https://doi.org/10.3390/ma13184169

38. Liashenko I, Ramon A, Rosell-Llompart J, Cabot A (2021) Ultrafast electrohydrodynamic 3D printing with in situ jet speed monitoring. *Materials & Design*, 206, 109791 (12pp). DOI:10.1016/j.matdes.2021.109791

    https://doi.org/10.1016/j.matdes.2021.109791

39. Aixart J, Díaz F, Llorca J, Rosell-Llompart J (2021) Increasing Reaction Time in Hummers' Method towards Well Exfoliated Graphene Oxide of Low Oxidation Degree. *Ceramics International*, 47(15), 22130-22137. DOI:10.1016/j.ceramint.2021.04.235

    https://doi.org/10.1016/j.ceramint.2021.04.235

40. Carrasco-Munoz A, Barbero-Colmenar E, Bodnár E, Grifoll J, Rosell-Llompart J (2022) Monodisperse droplets and particles by efficient neutralization of electrosprays. *Journal of Aerosol Science*, 160, 105909 (16pp). DOI:10.1016/j.jaerosci.2021.105909

https://doi.org/10.1016/j.jaerosci.2021.105909

41. Liashenko I, Ramon A, Rosell-Llompart J, Cabot A (2022) Patterning with Aligned Electrospun Nanofibers by Electrostatic Deflection of Fast Jets. *Advanced Engineering Materials*, 2101804 (8pp). DOI:10.1002/adem.202101804
    https://doi.org/10.1002/adem.202101804

42. Batista E, Villanova O, Rosell-Llompart J, Huera-Huarte FJ, Martínez-Ballesté A, Solanas A (2023) On the Deployment of Low-Cost Sensors to Enable Context-Aware Smart Classrooms. ApplePies 2022, LNEE 1036, pp. 333–338, R Berta and A De Gloria (Eds.) (Springer LNEE book series). (ISBN 978-3-031-30332-6). DOI:10.1007/978-3-031-30333-3_45
    https://doi.org/10.1007/978-3-031-30333-3_45

43. Elm J, Czitrovszky A, Held A, Virtanen A, Kiendler-Scharr A, Murray BJ, McCluskey D, Contini D, Broday D, Goudeli E, Timonen H, Rosell-Llompart J, Castillo JL, Diapouli E, Viana M, Messing ME, Kulmala M, Zíková N, Schmitt SH (2023) Editorial: Aerosol Research – a new diamond open-access journal covering the breadth of aerosol science and technology, Aerosol Research, 1, 13–16. DOI:10.5194/ar-1-13-2023
    https://doi.org/10.5194/ar-1-13-2023

44. Barbero-Colmenar E, Bodnár E, Rosell-Llompart J (2023) Natural extract-polymer monodisperse submicron particles from Plateau-Rayleigh microjets. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 676, 132055. DOI:10.1016/j.colsurfa.2023.132055
    https://doi.org/10.1016/j.colsurfa.2023.132055

45. Grifoll J, Rosell-Llompart J (2024) In-situ charge reduction of electrospray plumes by unipolar corona ions. *Journal of Aerosol Science*, 175, 106277. DOI:10.1016/j.jaerosci.2023.106277
    https://doi.org/10.1016/j.jaerosci.2023.106277

46. Batista E, Martínez-Ballesté A, Rosell-Llompart J, Solanas A (2024) Towards Context-Aware Classrooms: Lessons Learnt from the ACTUA project. ApplePies 2023, LNEE 1110, pp. 399–404, F Bellotti, MD Grammatikakis, A Mansour, MR Roch, R Seepold, A Solanas, R Berta (Eds.) (Springer LNEE book series). (ISBN 978-3-031-48121-5). DOI:10.1007/978-3-031-48121-5_57
    https://doi.org/10.1007/978-3-031-48121-5_57

47. Ramon A, Liashenko I, Rosell-Llompart J, Cabot A (2024) On the Stability of Electrohydrodynamic Jet Printing Using Poly(ethylene oxide) Solvent-Based Inks. *Nanomaterials*, 14(3), 273. DOI:10.3390/nano14030273
    https://doi.org/10.3390/nano14030273

## Books

"2nd Iberian Meeting on Aerosol Science and Technology: Proceedings Book RICTA 2014." Joan Rosell-Llompart and Jordi Grifoll (Editors). Publicacions URV, Tarragona, Spain, 2014. ISBN-13: 978-84-695-9978-5. http://digital.publicacionsurv.cat/index.php/purv/catalog/book/65

"El projecte ACTUA. Investigant la transmissibilitat dels virus respiratoris a les aules." (In Catalan) Edgar Batista, Francisco Huera, Antoni Martínez, Joan Rosell, and Agusti Solanas. Autoedited by the authors. Tarragona, Spain, 2023. ISBN-13: 978-84-127552-2-0. https://actua-urv.cat/wp-content/uploads/2023/11/Llibret_ACTUA.pdf

## THESES SUPERVISIONS

### Ph.D. Theses

Ajith Kumar Arumugham Achari. *Numerical simulation of fluid dynamics and transport phenomena in electrostatically charged volatile sprays.* Universitat Rovira i Virgili. Co-supervised by Prof. Jordi Grifoll. Defended on October 7th, 2014. https://www.tdx.cat/handle/10803/277387

Eszter Bodnár. *Electrospraying of polymer solutions for the generation of micro-particles, nano-structures, and granular films.* Universitat Rovira i Virgili. Defended on Jan. 28th, 2016. https://www.tdx.cat/handle/10803/379820

Nikolas Sochorakis Saloustros. *Electrospray scale-up for the production of particles of pharmaceutical interest.* Universitat Rovira i Virgili. Defended on October 18th, 2018. https://www.tdx.cat/handle/10803/664720

Ievgenii Liashenko. *Ultrafast electrohydrodynamic 3D printing with submicrometer resolution*. Universitat Rovira i Virgili. Co-supervised by ICREA Prof. Dr. Andreu Cabot (IREC, Barcelona, Spain). Defended on July 16th, 2020. https://www.tdx.cat/handle/10803/669812

Jordi Aixart Forés, *Characterization of graphene oxide obtained from modifications of Hummers' method and its application for reinforcing textiles*. Universitat Rovira i Virgili. Co-supervised by Prof. Francesc Díaz. Defended on November 26th, 2021. https://www.tdx.cat/handle/10803/673442

Antonio Carrasco Muñoz, *Production of homogeneous particles by controlled neutralization of electrosprays*. Universitat Rovira i Virgili. Defended on January 13th, 2022. https://www.tdx.cat/handle/10803/673423

Alberto Ramón Ferrer, *Electrohydrodynamic jet printing: stability and reproducibility.* Universitat de Barcelona. Co-supervised with ICREA Prof. Dr. Andreu Cabot, (IREC, Barcelona, Spain). Defended on January 16th, 2023. https://www.tdx.cat/handle/10803/687575

Yaride Pérez Pacheco, *Cancer cell encapsulation*. Universitat Rovira i Virgili. Co-supervised by Prof. Ricard Garcia Valls and by Dr. Bartosz Tylkowski. Defended on October 23rd, 2023. https://www.tdx.cat/handle/10803/690029

Reyda Akdemir, *Characterization of nanofibers produced by electrospinning for biomedical applications.* Universitat Rovira i Virgili. Defended on November 16th, 2023. https://www.tdx.cat/handle/10803/689902

Elena Barbero Colmenar, *Monodisperse Polymeric Micro and Nanoparticles by Electrospray Technologies*. Universitat Rovira i Virgili. Defended on February 9th, 2024.

*Current PhD students:* Md Paula Martínez Cánovas (FPU Fellow; since Oct. 2020; co-supervised with Prof. Francesc Medina Cabello, URV), Mr. Deepak Parajuli (EU COFUND Fellow; since May 2021).

### Master's Theses

Sergi Paredes Egea. *Electrohydrodynamic atomization for the generation of nanoparticles.* DEA Thesis. Universitat Rovira i Virgili, 2006.

Bruno Sersante Vásquez. *Water electrosprays in standard carbon dioxide.* Universitat Rovira i Virgili, 2007.

Nikolas Sochorakis. *Study on a linear electrospray system, with auxiliary electrodes for the production of polymer particles.* Universitat Rovira i Virgili, 2013.

Richard Ahorsu. *Enhanced hydrogen evolution of mesoporous $TiO_2$/C nanofibers decorated with Pd nanoparticles in water splitting driven by visible light.* Universitat Rovira i Virgili, 2017. (Co-supervised with Prof. Francesc Medina.)

Reyda Akdemir. *Nano-hydroxyapatite/poly(methyl methacrylate) coating on 316L stainless steel by electrospinning.* Universitat Rovira i Virgili, 2018.

Wardah Latif. *Characterization of initial droplet size for polymer solutions in electrosprays*. Universitat Rovira i Virgili, 2019. (Co-supervised with Dr. Eszter Bodnár.)

Havvagül Ermiş. *Mechanical properties of aligned PCL and PCL/HAp nanofibers made by electrospinning*. Universitat Rovira i Virgili, 2019. (Co-supervised with Ms. Reyda Akdemir.)

Paula Martínez Cánovas. *Porosity determinations of electrospun nanofibers by microscopy techniques*. Universitat Rovira i Virgili, 2020. (Co-supervised with Ms. Reyda Akdemir.)

Tamer Ben Hassan. *Porosity determination of polystyrene (PS) nanofibers by microscopy techniques*. Universitat Rovira i Virgili, 2022. (Co-supervised with Ms. Reyda Akdemir.)

Maria Laura Mauriello. *Method for investigating particle aggregation in particulate films by electrospray deposition.* Universitat Rovira i Virgili, 2023. (Co-supervised with Mr. Deepak Parajuli.)

## RESEARCH FUNDING

ON PROCESS AND ENGINEERING OF NANOPOROUS MATERIALS (OPEN ToK), Grant MTKD-CT-2005-030040, European Commission - FP6 Marie Curie Actions, PI: Flor Rebeca Siperstein Blumovicz, 2006 – 2010.

THIN FILM FORMATION BY ELECTROSPRAY MICRO-DROP DEPOSITION (ESFILMS), Grant CTQ2008-05758/PPQ, Spanish Ministry of Science and Innovation MICINN, PI: Joan Rosell Llompart, 2009 – 2012.

PRODUCTION OF ARTIFICIAL FIBERS BIOINSPIRED IN SPIDER SILK, Grant CIT-420000-2008-30, Spanish Ministry of Science and Innovation MICINN. PI: Manuel Elices Calafat (Universidad Politécnica de Madrid). 2008 – 2009.

FENOMENS DE TRANSPORT (FET), Ref. 2009SGR1529, DURSI, Generalitat de Catalunya, SGR Program, PI: Joan Rosell Llompart (previously, Francesc Giralt Prat), 2009 – 2013.

MULTIEMITTER MEMS ELECTROSPRAY SOURCE FOR DEPOSITION OF NANOPARTICLES, 2010 California-Catalunya Engineering Innovation Program, Co-PI's: Manuel Gamero Castaño (University of California at Irvine) and Joan Rosell Llompart, 2010 – 2012.

ESCALADO DE ELECTROSPRAYS PARA LA PRODUCCION DE NANOPARTICULAS DE INTERES FARMACEUTICO (NANOSPRAY), Grant DPI2012-35687, Spanish Ministry of Economy and Competitiveness (MINECO), PI: Joan Rosell Llompart, 2013 – 2015.

ENGINYERIA DELS MATERIALS I LES SEVES APLICACIONS, MEtA (Materials Engineering and their Applications), Ref. 2014SGR1640, AGAUR, Generalitat de Catalunya, SGR Program, PI: Francesc Medina, 2014 – 2016.

PRODUCCION DE PARTICULAS HOMOGENEAS MEDIANTE NEUTRALIZACION CONTROLADA DE ELECTROSPRAYS (NEUSPRAY), Grant DPI2015-68969-P, Spanish Ministry of Economy and Competitiveness (MINECO), PI: Joan Rosell Llompart, 2016 – 2018. Total amount: 142,296 €.

ENGINYERIA DELS MATERIALS I LES SEVES APLICACIONS, MEtA (Materials Engineering and their Applications), Ref. 2017SGR1516, AGAUR, Generalitat de Catalunya, SGR Program, PI: Francesc Medina, 2017 – 2019 (2022). Total amount: 36,000 €.

PRODUCCIÓN DE PARTÍCULAS CON TAMAÑO Y FORMA VERDADERAMENTE UNIFORMES MEDIANTE EL SECADO DE ESPRÁIS GENERADOS ELECTRO-HIDRODINÁMICAMENTE (PROPELED), Grant PGC2018-

099687-B-I00, Spanish Ministry of Science, Innovation and Universities (MICINN), PI: Joan Rosell Llompart, 2019 – 2021 (2022). Total amount: 131,043 €.

CONTEXTUAL ANALYSIS OF THE MITIGATION FACTORS FOR TRANSMISSION OF COVID19 IN THE CLASSROOM - Anàlisi Contextual dels factors de mitigació de la Transmissió de la COVID19 a l'aUlA (ACTUA), Grant 2020PANDE00103, AGAUR, Generalitat de Catalunya, PI: Joan Rosell Llompart, 2021 – 2022 (2023). Total amount: 254,000 €.

DESVIACIÓN DE CHORROS ELECTROHIDRODINÁMICOS PARA EL DISEÑO DE CONSTRUCCIONES NANOFIBROSAS E IMPRESIÓN 3D (EJETPRINT), Grant PID2021-129064NB-I00, Spanish Ministry of Science and Innovation (MICINN), PI: Joan Rosell Llompart, 2022 – 2026. Total amount: 181,621 €.

SISTEMAS MATRICIALES DE ELECTROSPRAYS PARA LA PRODUCCIÓN MASIVA DE NANOPARTÍCULAS FUNCIONALES UNIFORMES (SIENA), Grant PDC2022-133989-I00, Spanish Ministry of Science and Innovation (MICINN), PI: Joan Rosell Llompart, 2022 – 2024. Total amount: 138,000 €.

ENGINYERIA DELS MATERIALS I LES SEVES APLICACIONS, MEtA (Materials Engineering and their Applications), Ref. 2021SGR-00978, AGAUR, Generalitat de Catalunya, SGR Program, PI: Francesc Medina, 2021 – 2024. Total amount: 40,000 €.

## TECHNOLOGY TRANSFER

Between 1996 and 2004, I was involved in industrial R&D at Aradigm Corporation (Hayward CA, USA), where I helped develop liquid micro-jet-based technology for drug delivery by inhalation. I also became liaison in the negotiation of the license agreement between Aradigm and Universidad de Sevilla's for the "flow focusing atomization technology" developed by Profs. Alfonso Gañán-Calvo and Antonio Barrero-Ripoll. Subsequently, Prof. Gañán-Calvo and I co-invented the "flow blurring" atomization method. The OneNeb™ nebulizer based on flow blurring is currently marketed by Agilent Technologies.

Since returning to academic research in 2004 at University Rovira i Virgili, I have been involved in technology transfer (TT) activities at TT centers Simpple (2004), CiTQ (2005-2009), and ATIC (since 2009). I have been PI in 6 technology development contracts of aggregate contract value of 327.000 €, and I have collaborated in another two. I was director of CiTQ in 2009 and of ATIC since its founding in 2009 until May 2012. Under my leadership, ATIC was awarded the TECNIO seal by the Generalitat de Catalunya, as well as a competitive grant that helped develop the organization ("VALORITZACIÓ…", in the next section). I have led one university funded project in collaboration with a Spanish industrial partner (R2B program).

Between July 2017 till Dec. 2019, I have been Co-PI in a contract project entitled CONTRATO ENTRE EL CENTRE TECNOLOGIC DE LA QUIMICA DE CATALUNYA Y LA EMPRESA LENARD BCN, S.L SOBRE TEJIDOS TECNICOS (TQC17037S). Other PI: Prof. Francesc Díaz (from URV). Total amount: 127,440 €.

### Technology transfer grants (excluding contracts)

APOYO COMERCIAL A GRUPOS DE INVESTIGACION DE LA URV (Commercial support to research groups from URV). OTR2006-0085. Spanish Ministry of Science and Education. PI: Joan Rosell Llompart (previously, Francesc Giralt Prat). 2008 – 2011.

COLABORACIÓN ESTABLE ENTRE LOS CENTROS TECNIO DE LA URV Y EL CTQC (Stable collaboration between TECNIO centers from URV and the CTQC). VALFUS09-2-0002. ACC10-CIDEM – Generalitat de Catalunya. PI: Francisco Medina. 2009 – 2011.

VALORITZACIÓ DE L'STOCK TECNOLÒGIC I DINAMITZACIÓ DE LA TRANSFERÈNCIA ATIC (Technology stock valorization and dynamization of ATIC's transfer activity). TECCIT10-1-0043. ACC10-CIDEM – Generalitat de Catalunya. PI: Joan Rosell Llompart. 2010 – 2011.

## Patents

- **Issued and Licensed Patents**

| *Pat. number* | *Title* |
|---|---|
| CA 2374232 | Method for Producing an Aerosol |
| EP 1192009 | Method for Producing an Aerosol |
| AU 767486 | Method for Producing an Aerosol |
| US 7,143,766 | Temperature Controlling Device for Aerosol Drug Delivery |
| US 6,694,975 | Temperature Controlling Device for Aerosol Drug Delivery |
| US 5,869,831 | Method and Apparatus for Separation of Ions in a Gas for Mass Spectrometry |
| US 5,936,242 | Method and Apparatus for Separation of Ions in a Gas for Mass Spectrometry |

- **Patent Applications, Pending and Licensed**

At the European Patent Office (EPO):

| *Appl. number* | *Title* |
|---|---|
| 19382349.9 | Printing Device and Method (2019) |
| 19382350.7 | Device and Method for Determining the Speed of Printing of a Fiber and the Length of a Printed Fiber (2019) |

- **Patent Applications, Active and Licensed**

At the US Patent and Trademark Office (USPTO):

| *Publ. number* | *Title* |
|---|---|
| 20080053436 | Aerosol created by directed flow of fluids and devices and methods for producing same |
| 20070102533 | Aerosol created by directed flow of fluids and devices and methods for producing same |

- **Patent Publications by the World Intellectual Property Organization (WIPO), Licensed**

WO/2005/018817 AEROSOL CREATED BY DIRECTED FLOW OF FLUIDS AND DEVICES AND METHODS FOR PRODUCING SAME. (International Application No.: PCT/US2004/027763)

WO/2003/025527 TEMPERATURE CONTROLLING DEVICE FOR AEROSOL DRUG DELIVERY. (PCT/US2002/028759)

WO/2002/045773 USE OF ELECTROLYTES (IONS IN SOLUTION) TO SUPPRESS CHARGING OF INHALATION AEROSOLS. (PCT/US2001/047598)

WO/2000/076673 METHOD FOR PRODUCING AN AEROSOL. (PCT/US2000/015931)

# CONTRIBUTIONS AT CONGRESSES

Presenting authors are underlined.

1. J. Fernández de la Mora, J. Rosell-Llompart, and P. Riesco-Chueca. Aerodynamic Focusing of Particles and Molecules in Seeded Supersonic Jets. 16th International Symposium on Rarefied Gas Dynamics, Pasadena CA (USA), July 10-16, 1988.
2. J. Rosell-Llompart, and J. Fernández de la Mora. Control of the Impingement Energy of Large Molecules or Ultrafine Particles in a Hypersonic Impactor. 9th Annual AAAR Conference, Philadelphia PA (USA), June 18-22, 1990.
3. R. Fernández Feria, P. Riesco-Chueca, J. Rosell-Llompart, J. O'Brien, and J. Fernández de la Mora. Brownian-Motion Limited Aerodynamic Focusing of Heavy Molecules. 17th International Symposium on Rarefied Gas Dynamics, Aachen (GERMANY), July 8-14, 1990.
4. J. Rosell-Llompart, and J. Fernández de la Mora. Ionization of $CBR_4$ Molecules by Impact on "Dirty" W Surfaces from Un-Skimmed $H_2$ Hypersonic Jets at Kinetic Energies up to 8 eV. 17th International Symposium on Rarefied Gas Dynamics, Aachen (GERMANY), July 8-14, 1990.
5. J. Fernández de la Mora, J. Navascués, F. Fernández, and J. Rosell-Llompart. Generation of Submicron Monodisperse Aerosols in Electrosprays. 1990 European Aerosol Conference, Zurich (SWITZERLAND), October 1-5, 1990.
6. J. Fernández de la Mora, and J. Rosell-Llompart. Electrospray Generation of Very Small Monodisperse Droplets. GAeF Meeting, Karlsrühe (GERMANY), September 16-20, 1991.
7. J. Fernández de la Mora and J. Rosell-Llompart. Control of the Initial Droplet Size and Charge in Electrosprays, and Ion Production. 39th ASMS Conference on Mass Spectrometry and Allied Topics, Nashville TN (USA), May 19-24, 1991.
8. J. Rosell-Llompart, and J. Fernández de la Mora. Charge and Size Characterization in Electrosprays of Submicron Droplets. 11th Annual AAAR Meeting, San Francisco CA (USA), October 12-16, 1992.
9. I. G. Loscertales, J. Rosell-Llompart, and J. Fernández de la Mora. Generation of Monodisperse Nanoparticles in Electrosprays. 1993 European Aerosol Conference, Duisburg (GERMANY), October 4-8, 1993.
10. J. Rosell-Llompart, and J. Fernández de la Mora. Size Spectra of Narrowly Dispersed Droplets in the 0.1 to 4um Range from Electrosprays. 12th Annual Meeting of American Association for Aerosol Research, Oak Brook IL (USA), October 11-15, 1993.
11. J. Rosell-Llompart, and J. Fernández de la Mora. Minimization of the Diffusive Broadening of Ultrafine Particles in Differential Mobility Analyzers. International Workshop on the Synthesis and Measurement of Ultrafine Particles; Delft (The Netherlands); May 28-29, 1993.
12. J. Fernández de la Mora, I.G. Loscertales, J. Rosell, K. Serageldin, and S. Brown. Electrospray Atomization and Ultrafine Particles. Joint NSF-NIST Conference on Ultrafine Particle Engineering, Arlington VA (USA), May 26-27, 1994.
13. John B. Fenn, and Joan Rosell. How Much Pull Does an Ion Need to Escape its Droplet Prison? 7th Sanibel Conference on Mass Spectrometry, Sanibel Island FL (USA), January 21-24, 1995.
14. Jian-Ru Cao, Joan Rosell, and John B. Fenn. Ion Transmission through Glass and Metal Tubes. 43rd ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta GA (USA), May 21-26, 1995.
15. John B. Fenn, and Joan Rosell. How Are Electrospray Ions Born Free? - Dole vs Iribarne Revisited. 43rd ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta GA (USA), May 21-26, 1995.

16. Jian-Ru Cao, Joan Rosell, and John B. Fenn. Ion Mortality on the Journey from Atmospheric Pressure to Vacuum. 3rd International Symposium on Applied Mass Spectrometry in the Health Sciences. European Tandem Mass Spectrometry Conference, Barcelona (SPAIN), July 9-13, 1995.
17. P. Kiselev, J. Rosell, and J. B. Fenn. Solvent Fractionation during Evaporation of Charged Droplets. 44th ASMS Conference on Mass Spectrometry and Allied Topics, Portland OR (USA), May 12-16, 1996.
18. P. Kiselev, J. Rosell, and J. B. Fenn. New Angles in Aerosol Analysis. 74th Annual Meeting of the Virginia Academy of Science, Richmond VA (USA), May 1996.
19. P. Kiselev, J. B. Fenn, and J. Rosell. Slow Motion Studies of Electrically Stressed Liquid Droplets. 16th Annual AAAR Conference, Denver CO (USA), October 13-17, 1997.
20. F. J. Gómez Moreno, J. Rosell, and J. Fernández de la Mora. Effects of Turbulence in the Performance of Inertial Impactors. European Aerosol Conference (EAC 1997), Hamburg (GERMANY), September 15-19, 1997.
21. F. J. Gomez Moreno, J. Rosell, and J. Fernández de la Mora. Reynolds Number Effects on Impactor Performance for Laminar and Turbulent Flows. 16th Annual AAAR Conference, Denver CO (USA), October 13-17, 1997.
22. Pavel Kiselev, Joan Rosell, and John B. Fenn. Studies of Electrically Stressed Liquids. 45th ASMS Conference on Mass Spectrometry and Allied Topics, Palm Springs CA (USA), June 4-5, 1997.
23. Dongliang Zhan, Joan Rosell, and John B. Fenn. Gas Phase Solvation of ES Ions -a Tale Told by a Tactic. 45th ASMS Conference on Mass Spectrometry and Allied Topics, Palm Springs CA (USA), June 4-5, 1997.
24. Schuster, J. A., Farr, S.J., Cipolla, D.C., Wilbanks, T., Rosell, J., Lloyd, P., and Gonda, I. Design and Performance Validation of a Highly Efficient and Reproducible Compact Aerosol Delivery System. Respiratory Drug Delivery VI, Hilton Head SC (USA), May 3-7, 1998.
25. A. Ganan-Calvo, and J. Rosell. Respirable Aerosols by the Flow Focusing Technique. International Society for Aerosols in Medicine 12th Biennial Congress, Vienna (AUSTRIA), June 12-16, 1999.
26. A. Ganan-Calvo, and J. Rosell. Respirable Aerosols by the Flow Focusing Technique. 18th Annual AAAR Conference, Tacoma WA (USA), October 11-15, 1999.
27. Jeffrey Schuster, Joan Rosell, and Igor Gonda. Optimizing Systemic Delivery of Drugs via the Lung by Thermal Conditioning of the Inhalation Air. 19th Annual AAAR Conference, St. Louis MO (USA), November 6-10, 2000.
28. Joan Rosell, Jeff Schuster, Igor Gonda, and Kui Liu. Electrostatic Charge in AERx Aerosols. Drug Delivery to the Lungs XI, London (UNITED KINGDOM), December 11-12, 2000.
29. Joan Rosell, Igor Gonda, and Alfonso Gañán-Calvo. Flow Focusing for Spray Drying of Pharmaceuticals. 2001 American Association of Pharmaceutical Scientists Annual Meeting, Denver CO (USA), 2001.
30. Joan Rosell, Jeff Schuster, Kui Liu, Igor Gonda, Sudarsan Srinivassan, Deepa Deshpande. Suppression of Electrostatic Charging of AERxTM Aerosols. International Society for Aerosols in Medicine 13th International Congress, Interlaken (SWITZERLAND), September 17-21, 2001.
31. Alfonso M. Ganan-Calvo and Joan Rosell. Highest Efficiency Pneumatic Liquid Atomization. 57th Annual Meeting of the Division of Fluid Dynamics, Seattle WA (USA), November 21-23, 2004.
32. Noymer, P., Schuster, J. A., Holst, P., Rosell, J., Ament, B., Wilbanks, T., Srinivasan, S., Morishige, R., Farr, S. J. $AER_x$-Essence. Respiratory Drug Delivery IX (RDD IX), Palm Desert CA (USA), April 25-29, 2004.

33. J. Schuster, J. Rosell, T. Wilbanks, D. Clyde, A. Eliahu, H. K. Chan, E. Daviskas, S. Eberl. Improvements in Delivery to the Lung Periphery. International Society for Aerosols in Medicine, 15th International Congress, Perth (AUSTRALIA), March 14-18, 2005.
34. Joan Rosell. Advances and Aspirations in Electro-Hydrodynamic Research. 2005 Summer School of the Max Planck Institute of Colloids and Interfaces, Tarragona (SPAIN), September 29 - October 6, 2005.
35. Sergi Paredes Egea and Joan Rosell. Electro-Hydrodynamic Spraying from Narrow Capillaries. 3rd NanoSpain Workshop, Pamplona (SPAIN), March 20-23, 2006.
36. Alfonso M. Gañán-Calvo and Joan Rosell. Flow Focusing and Flow Blurring. 7th International Aerosol Conference, St. Paul MN (USA), September 10-15, 2006.
37. S. Paredes-Egea and J. Rosell-Llompart. Electrified Cone-Jets from Micrometric Capillary Tubes. 1ª Reunión Española de Ciencia y Tecnología de Aerosoles (RECTA 2007), Madrid (SPAIN), July 5-6, 2007.
38. B. Sersante-Vásquez and J. Rosell-Llompart. Low Conductivity Water Cone-Jets in Carbon Dioxide. 1ª Reunión Española de Ciencia y Tecnología de Aerosoles (RECTA 2007), Madrid (SPAIN), July 5-6, 2007.
39. Alfonso M. Gañán-Calvo and Joan Rosell-Llompart. Droplet size distributions produced by "Flow Blurring". EUROMECH 493 - Interface Dynamics, Stability and Fragmentation, Grenoble (FRANCE), August 29-31, 2007.
40. S. Paredes-Egea and J. Rosell-Llompart. Cone-jet Formation in Nanospray Atomisation. European Aerosol Conference 2007 (EAC-2007), Salzburg (AUSTRIA), September 9-14, 2007.
41. B. Sersante-Vásquez and J. Rosell-Llompart. Studies in Electro-hydrodynamic Spraying of Water in Standard CO2. European Aerosol Conference 2007 (EAC-2007), Salzburg (AUSTRIA), September 9-14, 2007.
42. Jordi Grifoll Taverna, Joan Rosell-Llompart. Modeling Electrospray Droplets Transport for Thin Film Formation. AAAR 28th Annual Conference (American Association for Aerosol Research), Minneapolis MN (USA), October 26-30, 2009.
43. Eszter Bodnár, Pavel Kiselev, Joan Rosell-Llompart. Thin Film Uniformity as a Function of Electrospray Conditions. AAAR 28th Annual Conference (American Association for Aerosol Research), Minneapolis MN (USA), October 26-30, 2009.
44. Sergio Paredes Egea, Joan Rosell-Llompart. Visualization of Electrified Liquid Menisci from Nanospray Sources. AAAR 28th Annual Conference (American Association for Aerosol Research), Minneapolis MN (USA), October 26-30, 2009.
45. Ciara O'Sullivan, Ioanis Katakis, Robert Rallo, Francesc Castells, Joan Rosell, Olivier Henry, Alex Fragoso, Pablo Lozano, Valerio Beni, Isabela Butnar, Pavel Kiselev. Biomedical and Nanomaterials Capabilities at ATIC Innovation Center. Jornada AIN, Barcelona (SPAIN), June 9, 2010.
46. Eszter Bodnár, Pavel Kiselev, Jordi Grifoll, Joan Rosell-Llompart. Experiments and numerical simulation of electrospray thin film formation. 8th International Aerosol Conference, Helsinki (FINLAND), August 29 - September 3, 2010.
47. Eszter Bodnár, Pavel Kiselev, Joan Rosell-Llompart. Effect of relative humidity on the microstructure of electrospray deposited polymer thin films. Nanospain 2011 - ImagineNano 2011, Bilbao (SPAIN), April 11-14, 2011.
48. Pavel Kiselev, Joan Rosell-Llompart. Producing highly aligned nanofibers by electrospinning without whipping motion. Nanospain 2011 - ImagineNano 2011, Bilbao (SPAIN), April 11-14, 2011.

49. Luis B. Modesto-López, Joan Rosell-Llompart. 1-D structures of metal oxides templated via electro-hydrodynamic micro-Flows (EHμFs). Nanospain 2011 - ImagineNano 2011, Bilbao (SPAIN), April 11-14, 2011.

50. Joan Rosell-Llompart. Atomización electrostática y temas afines (Electrospray Atomization and related topics) [Invited seminar]. Third Summer School of the Spanish Association of Aerosol Science and Technology, CIEMAT, Madrid (SPAIN), June 26, 2011.

51. Jordi Grifoll, Ajith Kumar A., Joan Rosell-Llompart. Numerical simulation of electrospray droplets dynamics [Poster]. V Reunión de la Asociación Española de Ciencia y Tecnología de Aerosoles (RECTA 2011), CIEMAT, Madrid (SPAIN), June 27-29, 2011.

52. Luis Balam Modesto-Lopez, Oleksandr Bilousov, Joan Josep Carvajal, F. Díaz, Joan Rosell-Llompart. Electrospray deposition of graphene nanosheets [B-WG07S1P08, poster; and WG07S1B00, Reserve oral presentation]. European Aerosol Conference 2012 (EAC-2012), Granada (SPAIN), September 2-7, 2012.

53. Eszter Bodnár, Pavel Kiselev, Jordi Grifoll, Joan Rosell-Llompart. Morphology dependency of electrospray-generated polymer particles and coatings on ambient humidity [B-WG07S1P53, poster]. European Aerosol Conference 2012 (EAC-2012), Granada (SPAIN), September 2-7, 2012.

54. A.K. Arumugham, J. Grifoll, J. Rosell-Llompart. Numerical simulations of electrosprays including induced gas flow [C-WG11S1P16, poster]. European Aerosol Conference 2012 (EAC-2012), Granada (SPAIN), September 2-7, 2012.

55. Jordi Grifoll, Joan Rosell-Llompart. Simulation of electrosprays based on a continuous space charge approximation. 1st Iberian Meeting on Aerosol Science and Technology (RICTA-2013), Évora (PORTUGAL), July 1-3, 2013.

56. E. Bodnár, J. Grifoll, J. Rosell-Llompart. Growth Dynamics of Polymer Granular Films Produced by Electrospray Deposition [Poster PII-14]. 1st Iberian Meeting on Aerosol Science and Technology (RICTA-2013), Évora (PORTUGAL), July 1-3, 2013.

57. E. Bodnár, N. Sochorakis, J. Grifoll, J. Rosell-Llompart. Electrostatic charging during electrospray deposition of polymer granular coatings [Oral]. European Aerosol Conference 2013 (EAC-2013), Prague (CZECH REPUBLIC), September 1-6, 2013.

58. L. B. Modesto-Lopez, O. V. Bilousov, J. M. Serres, J. Rosell-Llompart, J. J. Carvajal, F. Díaz. Towards deposition of single layer graphene by an electrospray ion-assisted method [Oral]. European Aerosol Conference 2013 (EAC-2013), Prague (CZECH REPUBLIC), September 1-6, 2013.

59. A. K. Arumugham, Jordi Grifoll, Joan Rosell-Llompart. Effects of induced gas flow on electrospray dynamics [Oral]. European Aerosol Conference 2013 (EAC-2013), Prague (CZECH REPUBLIC), September 1-6, 2013.

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