esade
RAMON LLULL UNIVERSITY

Entrepreneurship Institute (EEI)

Raquel Pruna

Master of Research in Management Sciences candidate at Esade Business School

Education

- M.Res. in Management Sciences at Esade Business School (currently)
- Ph.D. in Engineering and Applied Sciences at Universitat de Barcelona
- M.Sc. in Biomedical Engineering at Universitat de Barcelona and Universitat Politècnica de Catalunya
- B.Sc. in Physics at Universitat de Barcelona

Areas of interest

Social data science, economic sociology, machine learning and pattern recognition, status, networks.

Biography

Raquel Pruna is currently coursing the Master of Research in Management Sciences at Esade Business School. Prior to that, she was involved, as post-doctoral researcher at Esade, in the H2020-EU *Blindspot* project, studying networks of cognition in markets.

During her prior Ph.D. she worked on the preparation, characterization and biofunctionalization of transparent, conducting and nanostructured surfaces and their integration into portable potentiostatic systems for the optimization of *lab-on-a-chip* devices, achieving a miniaturized point-of-care prototype for the quantification of cardiac biomarkers. She was visiting student at the Institut des Sciences Analytiques in Lyon (France), the Institut de Química Avançada de Catalunya (IQAC-CSIC) and the Institut de Ciència de Materials de Barcelona (ICMAB-CSIC).

After receiving her Ph.D., she worked as computer system validation consultant in the pharmaceutical industry.

esade
RAMON LLULL UNIVERSITY

Entrepreneurship Institute (EEI)

Selected publications

Journal Articles

R. Pruna, M. López, F. Teixidor. 2019. *Tuning the deposition parameters for optimizing the faradaic and non-faradaic electrochemical performance of nanowire array-shaped ITO electrodes prepared by electron beam evaporation*. Nanoscale, 11 (1), pp. 276–284.

R. Pruna, A. Baraket, A. Bonhommé, N. Zine, A. Errachid, M. Lopez. 2018. *Novel nanostructured indium tin oxide electrode for electrochemical immunosensors: Suitability for the detection of TNF-α*. Electrochimica Acta, 283, pp. 1632-1639.

R. Pruna, F. Palacio, A. Baraket, N. Zine, A. Streklas, J. Bausells, A. Errachid, M. López. 2018. *A low-cost and miniaturized potentiostat for sensing of biomolecular species such as TNF- α by electrochemical impedance spectroscopy*. Biosensors and Bioelectronics, 100, pp. 533–540.

A. Garcia-Cruz, F. Nessark, M. Lee, N. Zine, M. Sigaud, **R. Pruna**, M. Lopez, P. Marote, J. Bausells, N. Jaffrezic-Renault, A. Errachid. 2018. *Efficient fabrication of poly(pyrrole)-nanowires through innovative nanocontact printing, usingcommercial CD as mold, on flexible thermoplastics substrates: application for cytokines immunodetection*. Sensors and Actuators B: Chemical, 255, pp. 2520–2530.

A. Garcia-Cruz, M. Lee, P. Marote, N. Zine, M. Sigaud, A. Bonhomme, **R. Pruna**, M. Lopez, J. Bausells, N. Jaffrezic, A. Errachid. 2016. *Large area in situ fabrication of poly(pyrrole)-nanowires on flexible thermoplastic films using nanocontact printing*. Materials Research Express, 3 (8), 085018.

R. Pruna, F. Palacio, M. López, J. Pérez, M. Mir, O. Blázquez, S. Hernández, B. Garrido. 2016. *Electrochemical characterization of organosilane-functionalized nanostructured ITO surfaces*. Applied Physics Letters, 109 (6), 063109.

R. Pruna, F. Palacio, M. Martínez, O. Blázquez, S. Hernández, B. Garrido, M. López. 2016. *Organosilane-functionalization of nanostructured indium tin oxide films*. Interface Focus, 6 (6), 20160056.

Conference Proceedings

R. Pruna, F. Palacio, I. Fuentes, C. Viñas, F. Teixidor, M. López. 2018. *A novel transparent pH sensor based on a nanostructured ITO electrode coated with [3,3'-Co(1,2-$C_2B_9H_{11})_2$]-doped poly(pyrrole)*. MDPI Proceedings 2 (13), pp. 869.

R. Pruna, F. Palacio, M. López. 2017. *Towards nanostructured ITO-based electrochemical sensors: fabrication, characterization and functionalization*. MDPI Proceedings, 1 (4), 288.

esade
RAMON LLULL UNIVERSITY

Entrepreneurship
Institute (EEI)

R. Pruna, F. Palacio, A. Baraket, J. Bausells, A. Errachid, M. López. 2017. *Low-cost impedance measurements for lab-on-a-chip architectures: towards potentiostat miniaturization*. MDPI Proceedings, 1 (4), 604.

F. Palacio, J. María Gómez, J. Burgués, **R. Pruna**, M. López, A. Scorzoni, S. Zampolli, S. Marco. 2017. *Evaluation of MOX sensor characteristics in ultra-low power operation modes: application to a semi-passive RFID tag for food logistics*. MDPI Proceedings, 1 (4), 459.