

**Inmaculada Ríos-López**

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**Academic Education and Qualifications**

Degree on CHEMICAL ENGINEERING

University of Murcia (Murcia, Spain)

Dates: 2006-2013

Grades: 7.2/10

Master on BIOMEDICAL ENGINEERING

University Miguel Hernández (Elche, Alicante, Spain)

Dates: 2013-2014

Grades: 9.2/10

PhD in Biomedical Engineering (OPTICAL ENGINEERING)

Polytechnic University of Catalonia, Optics and Optometry Department, (Applied Optics and Image Processing Group), Barcelona-TECH (Barcelona, Spain)

Dates: 10/04/2015 – 03/08/2016

Provisional thesis title:

*Optical properties of multifocal diffractive and toric intraocular lenses under polychromatic light.*

## Main items

- Experimental evaluation of chromatic properties and image quality of “premium” IOLs in optical bench.
- Improvement in optical bench construction and design (recent acquisition, deformable mirror).
- Comparison between optical bench and clinical results.

Thesis director: María Sagrario Millán García-Varela (Polytechnic University of Catalonia)

Thesis supervisor: Fidel Vega Lerín (Polytechnic University of Catalonia)

## PhD in CHEMICAL ENGINEERING

Aristotle University of Thessaloniki (Thessaloniki, Greece), School of Chemistry, Division of Chemical Technology.

Dates: 01/09/2016- current position

Provisional thesis title:

*Wetting/Dewetting under external body forces\**

\*This project belong to CoWet Marie Curie Network for Complex Wetting Phenomena.

Thesis supervisor: Thodoris Karapantsios (Aristotle University of Thessaloniki)

## Conferences

- ❖ Inmaculada Ríos-López, Fidel Vega and María S. Millán “Chromatic performance and aberration of diffractive multifocal intraocular lenses”. XI Reunión Nacional de Óptica, 2015 [annual national optics meeting] (Salamanca, Spain).
- ❖ Inmaculada Ríos, María S. Millán, Fidel Vega y Franciso Alba-Bueno “Propiedades cromáticas de las lentes intraoculares multifocales difractivas”.
- ❖ Published in “Resúmenes de contribuciones a la Reunión Nacional de Óptica” [abstracts of the annual national optics meeting], 2015 (Salamanca, Spain). ISBN 978-84-608-4609-3.

- ❖ Inmaculada Ríos-López, Fidel Vega and María S. Millán “Chromatic aberration of diffractive multifocal intraocular lenses”. International OSA Network of Students (IONS), 2015 (Valencia, Spain).
- ❖ Propiedades ópticas de lentes intraoculares multifocales difractivas con luz policromática Aberración Cromática Longitudinal y Eficiencia Energética. 31º Congreso de la Sociedad Española de Cirugía Ocular Implanto-Refractiva (SECOIR) [Spanish society for ocular implants and refractive surgery] , 2016 (Murcia, Spain).

## **Publications**

María S. Millán, Fidel Vega, Inmaculada Ríos López. “Polychromatic image performance of diffractive bifocal intraocular lenses: longitudinal aberration and energy efficiency” Investigative Ophthalmology & Visual Science (IOVS), 2016;57:2021-2028 DOI: 10.1167/iovs.15-188861

<http://iovs.arvojournals.org/article.aspx?articleid=2516890>

## **Honors and awards**

- Predoctoral contract from Spanish Ministry for Education (2015-2019) BES-2014-070687 and project DPI2013-43220-R.
- Finalist in Cataract symposium in SECOIR, 2016. Propiedades ópticas de lentes intraoculares multifocales difractivas con luz policromática aberración cromática longitudinal y eficiencia energética.

## **Skills**

- Optical bench instrumentation and utilization. Measurements and design techniques.
- Theoretical issues on visual optics.
- Background on cataract and refractive surgery and intraocular lenses.
- Scientific writing and presentation (papers, conferences, posters, ...).
- Basic programming skills.
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- Programming skills.
- Multidisciplinary background.
- Chemical Engineering experience during bachelor studies.
- 1 year of laboratory work developing design, synthesis and analysis of catalyst products for biological purpose.

- Biomedical engineering and Bioengineering knowledge.
- 6 months of laboratory work during my Biomedical Engineering master program working on electroencephalographic signal pre-treatment, filtering and classification for robotic-limb purpose.

LANGUAGE	WRITING	ORAL COMMUNICATION
Spanish	Native	Native
English	High	High

