

Curriculum Vitae

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Áreas de investigación:

- Plasmónica
- Espectroscopía de extinción, espectroscopía Raman
- Fabricación de nanopartículas por ablación láser de femtosegundo en líquidos
- Scattering óptico

Publicaciones de los últimos años

1) SIZING GOLD NANOPARTICLES BY OPTICAL EXTINCTION SPECTROSCOPY

L. Scaffardi, N. Pellegrini, O. de Sanctis and J. O. Tocho
Nanotechnology, I.O.P., Londres, Vol 16, pp 158 – 163 (2005), ISSN 0957-4484 (Print), ISSN 1361-6528 (Online)

2) PROCEDIMIENTO ANALÍTICO Y DISPOSICIÓN PARA DETERMINAR EL TAMAÑO DE PARTÍCULAS SUSPENDIDAS EN UN MEDIO LÍQUIDO

Lucía Scaffardi, Fabián Videla y Daniel Schinca

Patente (CONICET-UNLP-CIC). INPI, acta N° P050101083, presentada en febrero de 2005.

Publicada en Boletín de Patentes del INPI, 12 de julio de 2006, Boletín N° 363, pp. 12, Año X ISSN 0325-6545;

<http://www.inpi.gov.ar/pdf/patentes/p120706.pdf>

3) SIZING PARTICLES BY BACKSCATTERING SPECTROSCOPY AND FOURIER ANALYSIS

F. Videla, D. Schinca y L. Scaffardi

Optical Engineering, vol. 45, n° 4, 2006, 048001-9, (SPIE) Washington, ISSN: 0091-3286

4) SIZE DEPENDENCE OF REFRACTIVE INDEX OF GOLD NANOPARTICLES

Lucia B. Scaffardi and Jorge O. Tocho

Nanotechnology, I.O.P., Londres, Vol **17**, pp1309-1315, ISSN 0957-4484 (Print) (2006), ISSN 1361-6528 (Online)

5) SIZE EFFECTS ON THE OPTICAL PROPERTIES OF METAL NANOPARTICLES: APPLICATIONS TO SIZING BY ANALYSIS OF EXTINCTION SPECTRA

Lucia B. Scaffardi and Jorge O. Tocho

Capítulo 9, pp. 249-276, 2007

Capítulo de libro (por invitación) en “Progress in nanotechnology

Research” Nova Editorial; Editors: Eugene V. Dirote. **ISBN:** 1-60021-017-1 (Nova Science Publishers, Inc. 400 Oser Ave. Suite 1600, Hauppauge NY, 11788-3619, Phone: (631)231-7269, Fax: (631)231-8175, Email:

Novascience@earthlink.net);

<https://www.novapublishers.com/catalog/index.php>

6) VISIBLE AND NEAR INFRARED BACKSCATTERING SPECTROSCOPY FOR SIZING SPHERICAL MICROPARTICLES

L. B. Scaffardi, F. Videla and D. C. Schinca,

Appl. Opt. (OSA), Washington, **46**, 67-75, 2007, ISSN: 0003-6935 (print), ISSN: 1539-4522 (online)

7) SIZING MICRO AND NANOPARTICLES BY OPTICAL SCATTERING SPECTROSCOPY

L. B. Scaffardi, D. C. Schinca, F. Videla and J. O. Tocho

Capítulo de la “Encyclopedia of Nanoscience and Nanotechnology”, American Scientific Publishers, 2010, (en redacción)

8) OPTICAL EXTINCTION SPECTROSCOPY USED TO CHARACTERIZE METALLIC NANOWIRES

L. B. Scaffardi, M. Lester, D. Skigin and J. O. Tocho (Nanotechnology, **18**, 315402 (8pp), on-line, 2007), ISSN 0957-4484 (Print), ISSN 1361-6528 (Online)

9) ABSORPTION SPECTRA OF TINY GOLD AND SILVER OBJECTS

Lucía B. Scaffardi and Jorge O. Tocho

Journal of Luminiscence, vol. **128**, n° 5-6, 828-830 (2008), ISSN 0953-4075 (print); [doi:10.1016/j.jlumin.2007.11.017](https://doi.org/10.1016/j.jlumin.2007.11.017)

Proceeding of 16th International Conference on Dynamical Processes in excited States of solids (DPC 07), 17-22 june 2007, Segovia, Spain

10) OPTICAL EXTINCTION FOR DETERMINING SIZE DISTRIBUTION OF GOLD NANOPARTICLES FABRICATED BY ULTRASHORT PULSED LASER ABLATION

G. A. Torchia, L. B. Scaffardi, Cruz Méndez, Pablo Moreno, J. O. Tocho and Luis Roso

Applied Physics A: Material Science & Processing, vol. **93**, n° 4, 2008, pp. 967-971; ISSN 0947-8396 (print), ISSN 1432-0630 (Online); DOI 10.1007/s00339-008-4761-2, 2008.

<http://www.springerlink.com/content/wmu43p2k22025818/>

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11) OPTICAL PROPERTIES AND EXTINCTION SPECTROSCOPY TO CHARACTERIZE THE SYNTHESIS OF AMINE CAPPED SILVER NANOPARTICLES.

María Virginia Roldán, Lucía B. Scaffardi, Oscar de Sanctis and Nora Pellegrini
Materials Chemistry and Physics, 2008, **112**, 984-990, ISSN (printed): 0254-0584. doi:10.1016/j.matchemphys.2008.06.057, N° of pages: 7.

12) CORE AND SHELL SIZING OF SMALL SILVER COATED NANOSPHERES BY OPTICAL EXTINCTION SPECTROSCOPY

Daniel C. Schinca, Lucía B. Scaffardi

Nanotechnology 2008, **19**, 495712, 8 pp, ISSN 0957-4484 (Print), ISSN 1361-6528 (Online); doi: [10.1088/0957-4484/19/49/495712](https://doi.org/10.1088/0957-4484/19/49/495712)

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13) SILVER-SILVER OXIDE CORE-SHELL NANOPARTICLES BY FEMTOSECOND LASER ABLATION. CHARACTERIZATION BY EXTINCTION SPECTROSCOPY

D. C. Schinca, L. B. Scaffardi, F. A. Videla, G. A. Torchia, P. Moreno and L. Roso

J. Phys. D: Appl. Phys. 42 (2009) 215102 (9pp); doi: 10.1088/0022-3727/42/21/215102

14) ROLE OF SUPERCONTINUUM IN THE FRAGMENTATION OF COLLOIDAL GOLD NANOPARTICLES IN SOLUTION

Fabian A Videla, Gustavo A Torchia, Daniel C Schinca, Lucía B Scaffardi.

Pablo Moreno, Cruz Méndez, Luis Roso, L. Giovanetti and Jose Ramallo Lopez
Proceeding SPIE, 2009, Vol. 7405 74050U-1 a U12; doi: 10.1117/12.831032

15) ANALYSIS OF THE MAIN OPTICAL MECHANISMS RESPONSIBLE FOR FRAGMENTATION OF GOLD NANOPARTICLES BY FEMTOSECOND LASER RADIATION

F. A. Videla, G. A. Torchia, D. C. Schinca, L. B. Scaffardi, P. Moreno, C. Méndez, L. Giovanetti, J. Ramallo López and L. Roso, Journal of Applied Physics, **107**, 114308-1 to 114308-8, (2010)

16) DETERMINATION OF NANOMETRIC Ag₂O FILM THICKNESS BY SURFACE PLASMON RESONANCE AND OPTICAL WAVEGUIDE MODE COUPLING TECHNIQUES

J. M. J. Santillán, L. B. Scaffardi, D. C. Schinca and F. A. Videla, J. Opt. 12 (2010) 045002 (8pp), ISSN 1464-4258 (Print). ISSN 1741-3567 (Online).

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Virtual Journal in Science & technology, Ultrafast Science - July 2010, section Photonics, Volume 9, Issue 7, ISSN 1553-9601, Princeton University, USA

18) CHEMINFORM ABSTRACT: PHOTOISOMERIZATION DYNAMICS AND SPECTROSCOPY OF THE POLYMETHINE DYE DTCl

R. E. Di Paolo, L. B. Scaffardi, R. Duchowicz and G. M. Bilmes

(Selected abstracts in Chemistry) Article first published online: 12 Aug. 2010, ChemInform Volume **27**, Issue 4, Online ISSN: 1522-2667,

DOI: 10.1002/chin.199604033; WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim

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19) QUANTITATIVE OPTICAL EXTINCTION-BASED PARAMETRIC METHOD FOR SIZING A SINGLE CORE-SHELL Ag-Ag₂O NANOPARTICLE

Jesica M. J. Santillán, L. B. Scaffardi and D. C. Schinca, J. Phys. D: Appl. Phys. (2011), **44**, 105104 (8 pp), ISSN: 1361-6463 (Online), 0022-3727 (Print). doi: 10.1088/0022-3727/44/10/105104

20) METALLIC NANOTUBES CHARACTERIZATION VIA SURFACE PLASMON EXCITATION

R. M. Abraham Ekeroth, M. Lester, L. B. Scaffardi and D. C. Schinca, Plasmonics, 2011, [Volume 6, Nº 3](#), 435-444, DOI: 10.1007/s11468-011-9222-7, PLAS274R1, Springer, ISSN 1557-1955

21) PLASMON SPECTROSCOPY FOR SUBNANOMETRIC COPPER PARTICLES: DIELECTRIC FUNCTION AND CORE-SHELL SIZING

J. M. J. Santillán, F. A. Videla, L. B. Scaffardi and D. C. Schinca (enviado)

22) SIZE-DEPENDENT OPTICAL PROPERTIES OF METALLIC NANOSTRUCTURES

Lucía B. Scaffardi, Daniel C. Schinca, Marcelo Lester, Fabián A. Videla, Jesica M. J. Santillán and Ricardo M. Abraham Ekeroth
Capítulo de libro por invitación Ed. Springer, 2011-2012, 67 páginas,
2nd volumen of the book entitled: "VU-VIS and Photoluminescence Spectroscopy for Nanomaterials Characterization", Ed. Challa Kumar (en prensa 2012)

23) CHARACTERIZATION OF Cu-Cu₂O NANOPARTICLES FABRICATED BY FS LASER ABLATION THROUGH PLASMON SPECTROSCOPY

J. M. J. Santillán, F. A. Videla, L. B. Scaffardi and D. C. Schinca (enviado)

24) INFLUENCE OF DIELECTRIC FUNCTION SIZE CORRECTIONS IN THE EXTINCTION SPECTRA OF SILVER NANOPARTICLES

Jesica M. J. Santillán, Daniel C. Schinca, Fabián A. Videla and Lucía B. Scaffardi (en redacción)