

CURRICULUM VITAE

Personal Data:

Family Name: **SANCHEZ-CORTES**

First Given Name: **SANTIAGO**

Genre:

Date and place of birth:

Nationality:

Present Address:

Zip Code:

Phone:

E-mail:

Open Research and Contributor ID (ORCID): 0000-0002-1081-4644

Educational Background (*degrees, dates, universities*):

B.Sc. in Chemistry. 1982-1987. University of Murcia. Spain.

Ph.D. in Chemistry. 1989-1991. Complutense University of Madrid. Spain. 13th

December 1991. Title: *Surface-enhanced Raman spectroscopy of nucleic bases and their derivatives*

Affiliation and official Professional Address:

Current Position: Professor of Research

Institute of Structure of the Matter. CSIC (*Consejo Superior de Investigaciones Científicas*, Spanish National Research Council)

Serrano, 121. 28006 Madrid. Spain.

Phone Number: **+345616800 (942220)**. Fax: **+345645557**

E-mail address: s.sanchez.cortes@csic.es

Career/Employment

- *Graduated Fellowship*. Institute of Optics. CSIC. Madrid. Spain (1988-1993)
- *Postdoctoral Fellowship*. University of Bologna. Italy. (1994-1995).
- *Associated Scientist*. Institute of Structure of the Matter (IEM-CSIC). Madrid (1996-2000)
- *Tenured Scientist* (IEM-CSIC). Madrid (2001-2008)
- *Senior Research Scientist* (IEM-CSIC). Madrid (2008- 2024)
- *Professor of Research* (IEM-CSIC). Madrid (2025-)
- *Head of the Department* “Nuclear and Vibrational Spectroscopy and Disordered Media” (IEM-CSIC). Madrid (2011-2017).
- *Director of the Research Group EON (Optical Spectroscopy on Plasmonic and Semiconductor Nanostructures) at IEM-CSIC*

Specialization / Qualification:

Surface-Enhanced Optical Spectroscopy / Surface-enhanced Raman scattering (SERS) / Nanofabrication / Raman and Fluorescence of Biological molecules / Detection of Pollutants / Analysis of pigments, colorants and related materials with interest in the Cultural Heritage

Awards

- Gold Medal of the Faculty of Sciences of P.J. Safarik University of Kosice (Slovakia), in November 2008, for the outstanding contribution to scientific and pedagogical collaboration between the Institute of the Structure of the Matter (CSIC, Madrid, Spain) and the Biophysics Department of Institute of Physics of the Faculty of Sciences (University of Kosice, Slovak Republic).

Memberships of Profesional Societies and Editorial Committees

- President of the Spanish Spectroscopy Committee (2008-2012)
- Secretary of the Spanish Spectroscopy Committee (1998-2002)
- Member of the Spanish Royal Society of Chemistry
- Member of the Spanish Optical Society
- Director of the group Optical spectroscopy on plasmonic and semiconductor nanostructures at the Institute of the Structure of the Matter (CSIC).
- Member of the Organizing Committee of the European Conference on the Spectroscopy of Biological Molecules in 1997.
- Member of the Organizing Committee of the Iberian (Spain and Portugal) Spectroscopy Meeting since 1998-.
- Member of the Editorial committee of the journals: *Vibrational Spectroscopy*, *Journal of Raman Spectroscopy*, *Chemosensors*.

Invited/Sabbatical stays:

- University of Chile (Chile). 2009, 2017.
- University of Hokkaido (Japan). 2013.
- University of Bologna (Italy). 2015
- University of Kosice (Slovak Republic). 2014-2015, 2021, 2022.
- University of Presidente Prudente (Brazil). 2014
- Metropolitan Museum of Art. New York. 2017/2018

Publications and impact:

- Number of papers in refereed journals: **237** (h =**53** (WoS), **63** (Google Scholar))
- Total number of citations: > **9.500** (WoS)
- Papers with more than 100 citations: **21**
- Articles in SCI Proceedings: **22**
- Lectures in International Conferences: **82**
- Number of books: **15** chapters in series books and **2** chapters in Encyclopedia.

List of Publications in recent years:

- (140) Cañamares, M. V.; Sanchez-Cortes, S.; Martinez-Ramirez, S. Structural Characterization of a Third-Generation Commercial Cement Superplasticizer by Raman Spectroscopy and DFT Calculations. *J. Raman Spectrosc.* 2012, 43 (11), 1623–1629.
<https://doi.org/10.1002/jrs.4082>.
- (141) Jurasekova, Z.; Domingo, C.; Garcia-Ramos, J. V.; Sanchez-Cortes, S. Adsorption and Catalysis of Flavonoid Quercetin on Different Plasmonic Metal Nanoparticles Monitored by SERS. *J. Raman Spectrosc.* 2012, 43 (12), 1913–1919.
<https://doi.org/10.1002/jrs.4114>.
- (142) Fabriciova, G.; Lopez-Tobar, E.; Cañamares, M. V.; Backor, M.; Sanchez-Cortes, S. Adsorption of the Anthraquinone Drug Parietin on Silver Nanoparticles: A SERS and Fluorescence Study. *Vib. Spectrosc.* 2012, 63, 477–484.
<https://doi.org/10.1016/j.vibspec.2012.09.015>.
- (143) Martin-Sanchez, P. M.; Sanchez-Cortes, S.; Lopez-Tobar, E.; Jurado, V.; Bastian, F.; Alabouvette, C.; Saiz-Jimenez, C. The Nature of Black Stains in Lascaux Cave, France, as Revealed by Surface-Enhanced Raman Spectroscopy. *J. Raman Spectrosc.* 2012, 43 (3), 464–467. <https://doi.org/10.1002/jrs.3053>.
- (144) Defonsi Lestard, M. E.; Díaz, S. B.; Tuttolomondo, M. E.; Sánchez Cortez, S.; Puiatti, M.; Pierini, A. B.; Ben Altabef, A. Interaction of S-Methyl Methanethiosulfonate with DPPC Bilayer. *Spectrochim. Acta Part A Mol. Biomol. Spectrosc.* 2012, 97, 479–489.
<https://doi.org/10.1016/j.saa.2012.06.045>.
- (145) Izquierdo-Lorenzo, I.; Alda, I.; Sanchez-Cortes, S.; Garcia-Ramos, J. V. Adsorption and

- Detection of Sport Doping Drugs on Metallic Plasmonic Nanoparticles of Different Morphology. *Langmuir* 2012, 28 (24), 8891–8901. <https://doi.org/10.1021/la300194v>.
- (146) López-Tobar, E.; Blanch, G. P.; Ruiz del Castillo, M. L.; Sanchez-Cortes, S. Encapsulation and Isomerization of Curcumin with Cyclodextrins Characterized by Electronic and Vibrational Spectroscopy. *Vib. Spectrosc.* 2012, 62, 292–298. <https://doi.org/10.1016/j.vibspec.2012.06.008>.
- (147) Roldán, M. L.; Sanchez-Cortes, S.; García-Ramos, J. V.; Domingo, C. Cucurbit[8]Uril-Stabilized Charge Transfer Complexes with Diquat Driven by PH: A SERS Study. *Phys. Chem. Chem. Phys.* 2012, 14 (14), 4935. <https://doi.org/10.1039/c2cp23503j>.
- (148) El Bakkali, A.; Lamhasni, T.; Haddad, M.; Ait Lyazidi, S.; Sanchez-Cortes, S.; del Puerto Nevado, E. Non-Invasive Micro Raman, SERS and Visible Reflectance Analyses of Coloring Materials in Ancient Moroccan Islamic Manuscripts. *J. Raman Spectrosc.* 2013, 44 (1), 114–120. <https://doi.org/10.1002/jrs.4154>.
- (149) López-Tobar, E.; Hernández, B.; Ghomi, M.; Sanchez-Cortes, S. Stability of the Disulfide Bond in Cystine Adsorbed on Silver and Gold Nanoparticles As Evidenced by SERS Data. *J. Phys. Chem. C* 2013, 117 (3), 1531–1537. <https://doi.org/10.1021/jp3112606>.
- (150) Izquierdo-Lorenzo, I.; Kubackova, J.; Manchon, D.; Mosset, A.; Cottancin, E.; Sanchez-Cortes, S. Linking Ag Nanoparticles by Aliphatic α,ω -Dithiols: A Study of the Aggregation and Formation of Interparticle Hot Spots. *J. Phys. Chem. C* 2013, 117 (31), 16203–16212. <https://doi.org/10.1021/jp402833q>.
- (151) Guerrini, L.; Jurasekova, Z.; del Puerto, E.; Hartsuiker, L.; Domingo, C.; Garcia-Ramos, J. V.; Otto, C.; Sanchez-Cortes, S. Effect of Metal–Liquid Interface Composition on the Adsorption of a Cyanine Dye onto Gold Nanoparticles. *Langmuir* 2013, 29 (4), 1139–1147. <https://doi.org/10.1021/la304617t>.
- (152) Garcia-Leis, A.; Garcia-Ramos, J. V.; Sanchez-Cortes, S. Silver Nanostars with High SERS Performance. *J. Phys. Chem. C* 2013, 117 (15), 7791–7795. <https://doi.org/10.1021/jp401737y>.
- (153) Lopez-Tobar, E.; Antalik, M.; Jancura, D.; Cañamares, M. V.; García-Leis, A.; Fedunova, D.; Fabriciova, G.; Sanchez-Cortes, S. Adsorption and Detection of Amyloid Marker Thioflavin T on Ag Nanoparticles by Surface-Enhanced Raman Scattering. *J. Phys. Chem. C* 2013, 117 (8), 3996–4005. <https://doi.org/10.1021/jp310619c>.
- (154) Puerto, E. del; Cuesta, A.; Sanchez-Cortes, S.; Garcia-Ramos, J. V.; Domingo, C. Electrochemical SERS Study on a Copper Electrode of the Insoluble Organic Pigment Quinacridone Quinone Using Ionic Liquids (BMIMCl and TBAN) as Dispersing Agents. *Analyst* 2013, 138 (16), 4670. <https://doi.org/10.1039/c3an00446e>.
- (155) Izquierdo-Lorenzo, I.; García-Ramos, J. V.; Sanchez-Cortes, S. Vibrational Characterization and Surface-Enhanced Raman Scattering Detection of Probenecid Doping Drug. *J. Raman Spectrosc.* 2013, 44 (10), 1422–1427. <https://doi.org/10.1002/jrs.4284>.
- (156) Sevilla, P.; Sánchez-Cortés, S.; García-Ramos, J. V.; Feis, A. Concentration-Controlled Formation of Myoglobin/Gold Nanosphere Aggregates. *J. Phys. Chem. B* 2014, 118 (19), 5082–5092. <https://doi.org/10.1021/jp502008a>.
- (157) Jurasekova, Z.; Domingo, C.; Garcia-Ramos, J. V.; Sanchez-Cortes, S. Effect of PH on the Chemical Modification of Quercetin and Structurally Related Flavonoids Characterized

- by Optical (UV-Visible and Raman) Spectroscopy. *Phys. Chem. Chem. Phys.* 2014, 16 (25), 12802–12811. <https://doi.org/10.1039/C4CP00864B>.
- (158) Ertani, A.; Pizzeghello, D.; Francioso, O.; Sambo, P.; Sanchez-Cortes, S.; Nardi, S. Capsicum Chinensis L. Growth and Nutraceutical Properties Are Enhanced by Biostimulants in a Long-Term Period: Chemical and Metabolomic Approaches. *Front. Plant Sci.* 2014, 5. <https://doi.org/10.3389/fpls.2014.00375>.
- (159) Baraldi, G.; Lopez-Tobar, E.; Hara, K.; Sanchez-Cortes, S.; Gonzalo, J. Probing Plasmonic Effects on the Raman Activity of Ag Nanoparticle-Based Nanostructures through Terphenyl Diisocyanide Adsorption. *J. Phys. Chem. C* 2014, 118 (9), 4680–4686. <https://doi.org/10.1021/jp410628m>.
- (160) Hernández, B.; Pflüger, F.; López-Tobar, E.; Kruglik, S. G.; Garcia-Ramos, J. V.; Sanchez-Cortes, S.; Ghomi, M. Disulfide Linkage Raman Markers: A Reconsideration Attempt. *J. Raman Spectrosc.* 2014, 45 (8), 657–664. <https://doi.org/10.1002/jrs.4521>.
- (161) El Bakkali, A.; Lamhasni, T.; Ait Lyazidi, S.; Haddad, M.; Rosi, F.; Miliani, C.; Sánchez-Cortés, S.; El Rhaiti, M. Assessment of a Multi-Technical Non-Invasive Approach for the Typology of Inks, Dyes and Pigments in Two 19th Century's Ancient Manuscripts of Morocco. *Vib. Spectrosc.* 2014, 74, 47–56. <https://doi.org/10.1016/j.vibspec.2014.07.008>.
- (162) Kubackova, J.; Izquierdo-Lorenzo, I.; Jancura, D.; Miskovsky, P.; Sanchez-Cortes, S. Adsorption of Linear Aliphatic α,ω -Dithiols on Plasmonic Metal Nanoparticles: A Structural Study Based on Surface-Enhanced Raman Spectra. *Phys. Chem. Chem. Phys.* 2014, 16 (23), 11461–11470. <https://doi.org/10.1039/C4CP00424H>.
- (163) del Puerto, E.; Domingo, C.; Garcia Ramos, J. V.; Sanchez-Cortes, S. Adsorption Study and Detection of the High Performance Organic Pigments Quinacridone and 2,9-Dimethylquinacridone on Ag Nanoparticles By Surface-Enhanced Optical Spectroscopy. *Langmuir* 2014, 30 (3), 753–761. <https://doi.org/10.1021/la403625u>.
- (164) Furini, L. N.; Sanchez-Cortes, S.; López-Tocón, I.; Otero, J. C.; Aroca, R. F.; Constantino, C. J. L. Detection and Quantitative Analysis of Carbendazim Herbicide on Ag Nanoparticles via Surface-Enhanced Raman Scattering. *J. Raman Spectrosc.* 2015, 46 (11), 1095–1101. <https://doi.org/10.1002/jrs.4737>.
- (165) López-Tobar, E.; Hara, K.; Izquierdo-Lorenzo, I.; Sanchez-Cortes, S. Plasmonic Effects of Phenylenediisocyanides Linked at Interparticle Junctions of Metal Nanoparticles. *J. Phys. Chem. C* 2015, 119 (1), 599–609. <https://doi.org/10.1021/jp5101285>.
- (166) Garcia-Leis, A.; Torreggiani, A.; Garcia-Ramos, J. V.; Sanchez-Cortes, S. Hollow Au/Ag Nanostars Displaying Broad Plasmonic Resonance and High Surface-Enhanced Raman Sensitivity. *Nanoscale* 2015, 7 (32), 13629–13637. <https://doi.org/10.1039/C5NR02819A>.
- (167) López-Tobar, E.; Hernández, B.; Gómez, J.; Chenal, A.; Garcia-Ramos, J. V.; Ghomi, M.; Sanchez-Cortes, S. Anchoring Sites of Fibrillogenic Peptide Hormone Somatostatin-14 on Plasmonic Nanoparticles. *J. Phys. Chem. C* 2015, 119 (15), 8273–8279. <https://doi.org/10.1021/acs.jpcc.5b00485>.
- (168) Kubackova, J.; Fabriciova, G.; Miskovsky, P.; Jancura, D.; Sanchez-Cortes, S. Sensitive Surface-Enhanced Raman Spectroscopy (SERS) Detection of Organochlorine Pesticides by Alkyl Dithiol-Functionalized Metal Nanoparticles-Induced Plasmonic Hot Spots. *Anal. Chem.* 2015, 87 (1), 663–669. <https://doi.org/10.1021/ac503672f>.

— OMISSIS —

- (237) M.R. López-Ramírez, L. Olivares-Fernández, S. Sanchez-Cortes, Insight into Reduction Process of Diquat on Silver and Copper Electrodes Studied Using SERS, Chemosensors. 13 (2025) 39. <https://doi.org/10.3390/CHEMOSENSORS13020039/S1>

Participation in Funded Projects in recent years

Title: Detection of Trace Quantities of Molecules by Chemical Sensors Based on Metallic Nano-Particle Surfaces

Name of funding: NATO Programme Security through Science. Collaborative Linkage Grant. Ref. CBP.EAP.CLG 981232.

Institution: NATO Public Diplomacy Division.

Period: 2005-2007 (2 years)

Funding: 12.000 €

Principal Investigator: S. Sanchez-Cortes, P-Miskovsky.

Title: Flavonoids as Antioxidants: Interactions with Free Radicals and Metal Ions.

Name of funding: CSIC(Spain)/CNR(Italy) bilateral projects for scientific collaboration. Ref. 2004IT0023.

Institution: Consejo Superior de Investigaciones Científicas (CSIC).

Period: 2005-2006 (2 years)

Funding: 15.000 €

Principal Investigator: S. Sanchez-Cortes.

Title: Applications of SERS Spectroscopy to the detection of toxic compounds in foods.

Name of funding: Integrated Action between CSIC(Spain) and University of Florence (Italy).

Institution: Consejo Superior de Investigaciones Científicas (CSIC)

Period: 2005-2006 (2 years)

Funding: 20.000 €

Principal Investigator: S. Sanchez-Cortes.

Title: Functionalization of enhancing surfaces of vibrational signals by hosting molecules of persistent pollutants (PAHs and pesticides).

Name of funding: CSIC(Spain)/University of Chile bilateral projects for scientific collaboration.

Institution: Consejo Superior de Investigaciones Científicas (CSIC)

Period: 2006-2007 (2 years)

Funding: 15.000 €

Principal Investigator: S. Sanchez-Cortes.

Title: Sensing Optical Microsystems.

Name of funding: Promotion of R&D technological activities between researching groups of the Community of Madrid. Ref. S-0505/TIC-019.

Institution: Local Government of Madrid

Period: 2006-2009 (4 years)

Funding: 550.000 €

Principal Investigator: S. Sanchez-Cortes.

Title: Techniques of characterization of carbon materials: from nanotubes to humic substances.

Invited Lectures in International Conferences in the last 10 years

Espectroscopía Raman Intensificada por nanoestructuras y sus aplicaciones en detección molecular, bioanálisis y Patrimonio Cultural

S. Sanchez-Cortes.

Plenary Lecture

XXII Congreso Argentino de Físico-Química y Química Inorgánicas.

La Plata (Argentina). April 2021.

Raman and Surface-Enhanced Raman Scattering Analysis of Molecular Compounds with interest for the Cultural Heritage

S. Sanchez-Cortes.

Invited Lecture

11th International Conference on Advanced Vibrational Spectroscopy.

Krakow (Poland). August 2021.

Improvement of the SERS Performance by Anisotropic Nanofabrication and Specific Functionalization of Plasmonic Nanoparticles

S. Sanchez-Cortes

International Conference on Perspectives in Vibrational Spectroscopy. Invited Talk

Bangalore (India). 24th-29th of February 2020.

The interaction of Peptides with Nanoparticles

S. Sanchez-Cortes.

Invited Lecture

SSB 2019 11th International Conference on Structure and Stability of

Biomacromolecules

Kosice (Slovak Republic). September 2019

Raman and Surface-Enhanced Raman Scattering of Iron Gallic Inks in Ancient Manuscripts from Spain and Slovak Republic

S. Sanchez-Cortes.

Invited Lecture

42nd International Symposium on Archaeometry

Mérida (México)

May 2018

Exploración no invasiva Raman SERS de colorantes orgánicos en objetos artísticos: estrategias y futuro

S. Sanchez-Cortes.

Plenary Lecture

1er Seminario Internacional de Arqueometría, Materialidad y Conservación

Santiago de Chile

August 2017

Sensitive In-situ Raman Detection of Organic Dyes on Artistic Objects by Deposited or Laser Photoinduced Plasmonic Silver Nanoparticles

S. Sanchez-Cortes.

Plenary Lecture

XXVIth International Materials Research Sciences

Cancún

August 2017

Abiotic Degradation of Triazine Pesticides Analyzed with Surface-enhanced Raman Scattering

Supervision of students and researchers

Supervisor of PhD Thesis:

Raman Spectroscopy on metallic surfaces (SERS) of antitumoral drugs: an optimization of colloidal substrates of Au and Ag

Laura Rivas Garrido.

Universidad Autónoma de Madrid.

October 1999.

Guanidinobenzoatase: A posible tumoral marker for malign melanoma.

Adrian Murza.

Universidad Complutense de Madrid.

February 2000.

Aplication of the SERS spectroscopy to the study of pigments with interest for the study of Cultural Heritage.

María Vega Cañamares Arribas.

Universidad Complutense de Madrid.

January 2006.

Funcionalization of metallic nanoparticles for the detection of pollutants by means of SERS spectroscopy

Luca Guerrini.

Universidad Autónoma de Madrid.

March 2009.

Optical spectroscopies on metallic nanostructured surfaces applied to the study of flavonoids: Yellow pigments with interest for Cultural Heritage

Zuzana Jurasekova.

Universidad Nacional de Educación a Distancia (Madrid). September 2009.

Detection and characterization of highly performance quinacridones by jeans of molecular spectroscopy (Raman and fluorescence) enhanced by metallic nanoparticles

Elena del Puerto Nevado.

Universidad de Valladolid. May 2012.

Adsorption and ultrasensitive detection of sport doping drugs on plasmonic nanoparticles

Irene Izquierdo Lorenzo

Universidad Complutense de Madrid. July 2012.

Detection of organochloride pesticides by Surface-enhanced Raman Scattering (SERS) on dithiol functionalized plasmonic nanoparticles

Jana Kubackova

Universidad Autónoma de Madrid.

October 2014

Nanofabrication of ultrasensitive plasmonic nanoparticles and application in detection of neurodegenerative diseases

Adianez Garcia Leis

Universidad Autónoma de Madrid.

November 2015

Spectroscopic characterizations of Ferrogallic Inks and related pigments with interest in Cultural Heritage

Alba Espina García

University P.J. Safarik in Kosice /Universidad Autónoma de Madrid, cotutoring thesis

February 2023

Development of nanosensors based on plasmonic-enhanced optical spectroscopy for molecular sensitive and selective detection of glyphosate

Francisca Fuenzalida Sandoval

University P.J. Safarik in Kosice

November 2023

Study, Design and Characterization of Nanostructured Materials Using Optical Techniques For Environmental and Biophysical Applications.

Oumaima Douass

University Abdelmalek Essaoui, Faculty of Sciences of Tetouen (Morocco)

January 2025

Analytical methods based on Artificial Intelligence for treatment of massive data in spectroscopic analysis

Francisco José Gómez Fernández

European University of Madrid

In process

➤ **Supervisor of pre-doctoral students in short stays:**

- Marcia Saavedra. Univ. de Chile. July 2000.
- Carmen Olave. Univ. de Chile. February 2001.
- Eduardo Carrasco. Univ. de Chile. March 2002.
- Patricio Leyton. Univ. de Chile. October 2003-March 2004. March-April 2005.
- Giampietro Corrado. Univ. de Bologna (Italy). October 2003-May 2004.
- Paolo Carletti. Univ. de Padova (Italy). March-May 2006.
- Gejza Lajos. Univ. de Kosice (Eslovaquia). October 2006-March 2007. February 2008-June 2008.
- Michele di Foggia. Univ. de Bologna (Italy). April 2007.
- Alvaro Aliaga. Univ. de Chile. Mayo 2008. April-June 2009.
- María Lorena Roldán. Univ. Nac. de Tucumán (Argentina). September 2007-April 2008.
- Vadym Prokopec. Institute of Chemical Technology (Check Republic), August-October 2009.
- Adianez García Leis. Instituto Cubano de Estudios Avanzados (Cuba), October 2009-October 2010.
- Jana Preserova. Palacky University. Olomouc (Check Republic), September-November 2012.
- Leonardo Furini. Univ Estadual Paulista, Presidente Prudente, (Brazil). February-November 2013.
- Chiara Deriu. Università di Bologna (Italy), September 2013 – February 2014.
- Irene Bonacini. Università di Bologna (Italy), June-September 2014.
- Francesca Gallazzi. Università di Bologna (Italy), September 2014-April 2015.
- Maria Sole Zalaffi, Università di Bologna (Italy), May-October 2015
- Rodrigo Sánchez, Universidad Católica de Valparaíso (Chile), May-July 2016
- Elizabeth Imbarack, Universidad Católica de Valparaíso (Chile), June-October 2016.
- Rafael Rubira, Univ Estadual Paulista, Presidente Prudente, (Brazil). March-September. 2018-2019
- Salvatore Rapisarda, University of Bologna (Italy). 2022
- Federico Puliga, University of Bologna (Italy). 2022
- Oumaima Douass. University of Tetouan (Morocco). 2023
- Veronica Zuffi. University of Bologna (Italy). 2023

➤ **Supervisor of post-doctoral students:**

- Dr. Margarita Alvarez Ros, Spain (4 years: 1998-2002)
- Dr. Kana Mukherjee, India (2 years: 2000-2001).
- Dr. Gabriela Fabriciova, Slovak Republic (2 years: 2001-2002).
- Dr. Juan Ignacio Millán, Spain (2 years: 2002-2003).
- Dr. María Rosa López Ramírez, Spain (2 years: 2006-2008)

- Dr. María Lorena Roldán. Argentina (4 years: 2008-2011)
- Dr. Maria Repovska. Slovak Republic (2021-2023)
- Dr. Paulina Slepčikova, Slovak Republic (2021-2023)
- Dr. Annamaria Jutkova. Slovak Republic (2021-2023)
- Dr. Guilherme Dognani, Brasil (1 year: 2022-2023)
- Dr. María Angélica García Bucio, Mexico (2023).

Organization of Courses and Summer Schools:

Nanoestructuras: fabricación, caracterización y aplicaciones.
Comité de Espectroscopía de la SEDO (Sociedad Española de Óptica).
Summer School. June 2003.
Residencia de la Universidad de Zaragoza en Jaca (Spain).

Técnicas de caracterización de materiales de carbono: desde los nanotubos a las sustancias húmicas.
Comité de Espectroscopía de la SEDO (Sociedad Española de Óptica).
Summer School. June 2006.
Residencia de la Universidad de Zaragoza en Jaca (Spain).

Curso de iniciación a la investigación en Estructura de la Materia: desde las partículas subatómicas a los compuestos moleculares
April 2004.
Instituto de Estructura de la Materia. Madrid (Spain)

Plasmónica: Detección sobre nanoestructuras metálicas.
Comité de Espectroscopía de la SEDO (Sociedad Española de Óptica).
Summer School. June 2010.
Residencia de la Universidad de Zaragoza en Jaca (Spain)

Biospectroscopy.
Comité de Espectroscopía de la SEDO (Sociedad Española de Óptica).
Summer School. June 2014.
Residencia de la Universidad de Zaragoza en Jaca (Spain)

Organization of congresses and workshops:

7th European Conference on Spectroscopy of Biological Molecules (ECSBM'7).
El Escorial (Spain)
September 1997.
XVII Reunión Nacional de Espectroscopía.
León (Spain)
September 2000.

XVIII Reunión Nacional de Espectroscopía / II Congreso Ibérico de Espectroscopía.
Coimbra (Portugal).
September 2002

**XIX Reunión Nacional de Espectroscopía / III Congreso Ibérico de Espectroscopía.
Las Palmas de Gran Canaria (Spain)
July 2004.**

**XX Reunión Nacional de Espectroscopía / IV Congreso Ibérico de Espectroscopía.
Ciudad Real (Spain)
September 2006.**

**XXI Reunión Nacional de Espectroscopía / V Congreso Ibérico de Espectroscopía.
Murcia (Spain).
September 2008.**

**12th Jornadas de Análisis Instrumental.
Barcelona (Spain)
October 2008.**

**XXII Reunión Nacional de Espectroscopía / VI Congreso Ibérico de
Espectroscopía.
Oporto (Portugal)
September 2010.**

**XXIII Reunión Nacional de Espectroscopía / VII Congreso Ibérico de
Espectroscopía.
Córdoba (Spain)
September 2012.**