

Curriculum Vitae

Dr. Yuri Diaz Fernandez (MRSC)

Posizione Attuale: Ricercatore Universitario (RtD-B) – Dipartimento di Chimica, Università di Pavia (Italy)

Titolo: Dottorato in Chimica 2012, Università di Pavia (Italia).

“Abilitazione Scientifica Nazionale **ASN 03/B1-Abilitato II Fascia**”

Valida fino al 12/04/2028.

Produzione scientifica (Scopus metrics, del 24 Maggio 2024)

Total indexed scientific papers	77
Peer-reviewed papers	62
Papers as corresponding author	12
Papers since 2017*	29
Papers in Q1 Journals**	37
Papers in Q2 Journals**	28
Total citations	2650
H index	25

* “Abilitazione Scientifica Nazionale” ottenuta nel 2017

**Quartili (e.g. Q1 top 25%) del fattore impatto WoS nell’ anno di pubblicazione

Incarichi accademici e supervisione studenti

Università di Pavia (2022-presente)

- **Corso Laurea Magistrale:** Micro-spettroscopia inorganica e Bioimaging
2 anno “Laurea Magistrale” in Chimica, 48h frontali + 16h laboratorio opzionale
- **Corso di Laurea triennale:** General and Inorganic Chemistry
1st year “Laurea Triennale” in Science and Tech for Nature, 48h frontali
- **Corso di Dottorato:** New Frontiers in Inorganic Catalysis
Dottorato “Chemical and Pharmaceutical Sciences, and Related Industrial Innovation,
24h frontali
- **Corso di Dottorato:** Global Challenge of Plastic Pollution, causes, impact and solutions
Corso Transversale di Dottorato UniPV, Responsabile del modulo “Nano-plastics”, 4h frontali
- **Supervisione di Dottorandi of PhD students**
1 dottorando in Chimica (Ciclo 38th)
1 dottorando in Chimica (Ciclo 39th)
- **Supervisione di Laureandi**
3 Studenti “Laurea Magistrale” in CTF (Titolo conseguito nel 2024)
5 Studenti “Laurea Magistrale” in Chimica
1 Studente “Laurea Triennale” Scienze della Terra

Incarichi accademici e supervisione studenti (cont.)

University of Liverpool (2012-2021)

- **Supervisione di studenti PhD**
 - 1 PhD in Chemistry (Thesis defended 2018)
 - 1 PhD in Chemistry (Thesis defended 2019)
 - 1 PhD in Chemistry (Thesis defended 2021)
- **Supervisione di Undergraduate Students**
 - 1 MSc in Chemistry (Thesis defended 2018)

Progetti di ricerca finanziati.

- 2019-2020 Principal Investigator BBSRC-UK - "Bacteria@Home – Advanced testing platforms to address key performance variables for antimicrobial products on domestic surfaces". In collaboration with Unilever ((BB/R012415/1|01POC18051|) project value £130 000
- 2023-2026 Local principal investigator UniPV-unit, MetrINO - Metrology for innovative nanotherapeutics (EURAMET 22HLT04/h03) Call European Partnership on Metrology EURAMET 2022. In collaboration with 20 EU partners. UniPV share €130 000
- 2023-2025 Local principal investigator UniPV-unit, PRIN 2022 "Nanoparticles Synthesis Assisted by design of exPERimEnts (SAPERE)", – CUP: F53D23005120001. UniPV share €85 575

Affiliazioni Scientifiche:

Member of the Royal Society of Chemistry (UK)

Member of the EPSRC Grand Challenge Network for Directed Assembly of Extended Structures with Targeted Properties (Engineering and Physical Sciences Research Council – EPSRC UK)

Fellow of the International Centre of Cooperation for Development CICOPS (Centro Internazionale Cooperazione per lo Sviluppo, Italy)

Member of CSGI Center for Colloid and Surface Science (Consorzio Interuniversitario per lo sviluppo dei Sistemi a Grande Interfase, Italy)

Member INSTM National Interuniversity Consortium of Materials Science and Technology (Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali, Italy)

Principali distinzioni e premi:

2020 NBiC Seed Fund Grant in collaboration with Elentec LTD (R&D, Waste-Water treatment)

2019 NBIC PoC grant in collaboration with Unilever (R&D, homecare & hygiene sector)

2018 Senior Research Fellow of the National Biofilm Innovation Centre (BBSRC-UK)

2016 Emerging Investigator of the Royal Society of Chemistry

2008 Cariplo Foundation PhD Scholarship University of Pavia (2008-2011)

2007 UNESCO-ICTP TRIL Fellowship "Training in Italian Laboratories" UNESCO-ITCP programme

2005 Royal Society of Chemistry Journals Grant for International Authors (travel grant)

2004-2005 Two CICOPS Scholarships for collaboration projects with University of Pavia (Italy)

Esperienza Professionale:

Period	Position	Institution	Location
Gen.2022-presente	Ricercatore (RtDB)	Universita di Pavia	Pavia, Italia
Mar.2021-Dic.2021	Science Leader Nano-Bioimaging	LGC Group	Teddington, UK
Dic.2016-presente	Senior Research Fellow	University of Liverpool	Liverpool, UK
Dic.2016-Feb.2021	Research Coordinator Open Innovation Hub	University of Liverpool	Liverpool, UK
Mag.2014-Nov.2016	Post-doctoral Researcher	University of Liverpool	Liverpool, UK
Sett.2012-Apr.2014	Post-doctoral fellow	Chalmers University of Technology	Gothenburg, Sweden
Gen.2012-Aug.2012	Post-doctoral fellow	University of Pavia	Pavia, Italy
Ott.2008-Gen.2012	Cariplo Foundation Borsa di Dottorato	Fondazione Cariplo	Pavia, Italy
Gen.2010-Sett.2012	Chemistry Master Classes	Italian Chemical Society	Rome, Italy
Gen.2008-Sett.2008	Assegnista di Ricerca	Universita di Pavia	Pavia, Italy

Educazione e formazione

Period	Title	Institution	Location
Gen2013-Giu2013	Chalmers Electron Microscopy Advanced Course	Chalmers University of Technology	Goteborg, Sweden
Giu2013	Unconventional Solar Energy Materials Summer School	Chalmers University of Technology	Goteborg, Sweden
Mag2010	School on Diffraction at the Nanoscale - Nanocrystals, Defective & Amorphous Materials	Paul Scherrer Institute – SLS	Villigen, Switzerland
Ott2008-Gen2012	Dottorato in Chimica	Universita di Pavia	Pavia, Italy
Mar2007-Dic2007	TRIL Research Fellowship	Universita di Pavia & ICTP-UNESCO	Pavia, Italy
2004-2005	Due CICOPS Scholarships	Universita di Pavia	Pavia, Italy
Sett2002-Lug2004	M.Sc. in Radiochemistry	INTEC - Havana	Havana, Cuba
Sett1997-Giu2002	B.Sc. in Radiochemistry	INTEC - Havana	Havana, Cuba

Lista complete di pubblicazioni scientifica su of Scopus.

Scopus export date: 23 May 2024

Peer-reviewed scientific papers

1. Morris, G., Goodman, S., Sorzabal Bellido, I., Milanese, C., Girella, A., Pallavicini, P., Taglietti, A., Gaboardi, M., Jäckel, F., **Diaz Fernandez, Y.A.**, Raval, R.
Temperature and pH Stimuli-Responsive System Delivers Location-Specific Antimicrobial Activity with Natural Products
(2024) ACS Applied Bio Materials, 7 (1), pp. 131-143.
DOI: 10.1021/acsabm.3c00588
2. Doveri, L., Dacarro, G., **Fernandez, Y.A.D.**, Razzetti, M., Taglietti, A., Chirico, G., Collini, M., Sorzabal-Bellido, I., Esparza, M., Ortiz-de-Solorzano, C., Urteaga, X.M., Milanese, C., Pallavicini, P.
Prussian Blue nanoparticles: An FDA-approved substance that may quickly degrade at physiological pH
(2023) Colloids and Surfaces B: Biointerfaces, 227, art. no. 113373, . Cited 2 times.
DOI: 10.1016/j.colsurfb.2023.113373
3. Pallavicini, P., Preti, L., Protopapa, M.L., Carbone, D., Capodiecì, L., **Diaz Fernandez, Y.A.**, Milanese, C., Taglietti, A., Doveri, L.
Nanoparticle-Imprinted Silica Gel for the Size-Selective Capture of Silver Ultrafine Nanoparticles from Water
(2023) Molecules, 28 (10), art. no. 4026, .
DOI: 10.3390/molecules28104026
4. Sorzabal-Bellido, I., Barbieri, L., Beckett, A.J., Prior, I.A., Susarrey-Arce, A., Tiggelaar, R.M., Fothergill, J., Raval, R., Diaz Fernandez, Y.A.
Effect of Local Topography on Cell Division of Staphylococcus spp.
(2022) Nanomaterials, 12 (4), art. no. 683, . Cited 3 times.
DOI: 10.3390/nano12040683
5. Billimoria, K., **Fernandez, Y.A.D.**, Andresen, E., Sorzabal-Bellido, I., Huelga-Suarez, G., Bartczak, D., Ortiz De Solórzano, C., Resch-Genger, U., Infante, H.G.
The potential of bioprinting for preparation of nanoparticle-based calibration standards for LA-ICP-ToF-MS quantitative imaging
(2022) Metallomics, 14 (12), art. no. mfac088, . Cited 4 times.
DOI: 10.1093/mtomcs/mfac088
6. Toci, G., Olgiati, F., Pallavicini, P., **Fernandez, Y.A.D.**, De Vita, L., Dacarro, G., Grisoli, P., Taglietti, A.
Gold nanostars embedded in PDMS films: A photothermal material for antibacterial applications
(2021) Nanomaterials, 11 (12), art. no. 3252, . Cited 13 times.
DOI: 10.3390/nano11123252
7. Barbieri, L., Sorzabal Bellido, I., Beckett, A.J., Prior, I.A., Fothergill, J., **Diaz Fernandez, Y.A.**, Raval, R.
One-step preparation of antimicrobial silicone materials based on PDMS and salicylic acid: insights from spatially and temporally resolved techniques
(2021) npj Biofilms and Microbiomes, 7 (1), art. no. 51, . Cited 4 times.
DOI: 10.1038/s41522-021-00223-6
DOCUMENT TYPE: Article

8. Kunstmann-Olsen, C., Belić, D., Bradley, D.F., Danks, S.P., **Diaz Fernandez, Y.A.**, Grzelczak, M.P., Hill, A.P., Qiao, X., Raval, R., Sorzabal-Bellido, I., Brust, M.
Ion shuttling between emulsion droplets by crown ether modified gold nanoparticles
(2021) Nanoscale Advances, 3 (11), pp. 3136-3144. Cited 1 time.
DOI: 10.1039/d1na00009h
9. Morris, G., Sorzabal-Bellido, I., Bilton, M., Dawson, K., McBride, F., Raval, R., Jäckel, F., **Diaz Fernandez, Y.A.**
A novel self-assembly strategy for the fabrication of nano-hybrid satellite materials with plasmonically enhanced catalytic activity
(2021) Nanomaterials, 11 (6), art. no. 1580, .
DOI: 10.3390/nano11061580
10. Grisoli, P., De Vita, L., Milanese, C., Taglietti, A., **Fernandez, Y.D.**, Bouzin, M., D'alfonso, L., Sironi, L., Rossi, S., Vigani, B., Sperandeo, P., Polissi, A., Pallavicini, P.
Pva films with mixed silver nanoparticles and gold nanostars for intrinsic and photothermal antibacterial action
(2021) Nanomaterials, 11 (6), art. no. 1387, . Cited 24 times.
DOI: 10.3390/nano11061387
11. Bertoglio, F., de Vita, L., D'Agostino, A., **Fernandez, Y.D.**, Falqui, A., Casu, A., Merli, D., Milanese, C., Rossi, S., Taglietti, A., Visai, L., Pallavicini, P.
Increased antibacterial and antibiofilm properties of silver nanoparticles using silver fluoride(...)
(2020) Molecules, 25 (15), art. no. 3494, . Cited 14 times.
DOI: 10.3390/molecules25153494
12. Pallavicini, P., Preti, L., Vita, L.D., Dacarro, G., **Diaz Fernandez, Y.A.**, Merli, D., Rossi, S., et al.
Fast dissolution of silver nanoparticles at physiological pH
(2020) Journal of Colloid and Interface Science, 563, pp. 177-188. Cited 19 times.
DOI: 10.1016/j.jcis.2019.12.081
13. Sorzabal-Bellido, I., **Diaz-Fernandez, Y.A.**, Susarrey-Arce, A., Skelton, A.A., McBride, F., Beckett, A.J., Prior, I.A., Raval, R.
Exploiting Covalent, H-Bonding, and π - π Interactions to Design Antibacterial PDMS Interfaces That Load and Release Salicylic Acid
(2019) ACS Applied Bio Materials, 2 (11), pp. 4801-4811. Cited 12 times.
DOI: 10.1021/acsabm.9b00562
14. Susarrey-Arce, A., Hernández-Sánchez, J.F., Marcello, M., **Diaz-Fernandez, Y.**, Oknianska, A., Sorzabal-Bellido, I., Tiggelaar, R., Lohse, D., Gardeniers, H., Snoeijer, J., Marin, A., Raval, R.
Bacterial Footprints in Elastic Pillared Microstructures
(2018) ACS Applied Bio Materials, 1 (5), pp. 1294-1300. Cited 8 times.
DOI: 10.1021/acsabm.8b00176
15. Pallavicini, P., Bassi, B., Chirico, G., Collini, M., Dacarro, G., Fratini, E., Grisoli, P., Patrini, M., Sironi, L., Taglietti, A., Moritz, M., Sorzabal-Bellido, I., Susarrey-Arce, A., Latter, E., Beckett, A.J., Prior, I.A., Raval, R., **Diaz Fernandez, Y.A.**
Modular approach for bimodal antibacterial surfaces combining photo-switchable activity and sustained biocidal release
(2017) Scientific Reports, 7 (1), art. no. 5259, . Cited 37 times.
DOI: 10.1038/s41598-017-05693-3

16. Michailidis, M., Sorzabal-Bellido, I., Adamidou, E.A., **Diaz-Fernandez, Y.A.**, Aveyard, J., Wengier, R., Grigoriev, D., Raval, R., Benayahu, Y., D'Sa, R.A., Shchukin, D.
Modified Mesoporous Silica Nanoparticles with a Dual Synergetic Antibacterial Effect
(2017) ACS Applied Materials and Interfaces, 9 (44), pp. 38364-38372. Cited 66 times.
DOI: 10.1021/acsami.7b14642
17. Samperi, M., Hirsch, B.E., **Diaz Fernandez, Y.A.**
Exploring the science of thinking independently together: Faraday Discussion Volume 204-
Complex Molecular Surfaces and Interfaces, Sheffield, UK, July 2017
(2017) Chemical Communications, 53 (94), pp. 12601-12607.
DOI: 10.1039/c7cc90389h
18. Susarrey-Arce, A., Marin, A., Massey, A., Oknianska, A., **Díaz-Fernandez, Y.**, Hernández-Sánchez, J.F., Griffiths, E., Gardeniers, J.G.E., Snoeijer, J.H., Lohse, D., Raval, R.
Pattern Formation by Staphylococcus epidermidis via Droplet Evaporation on Micropillars Arrays at a Surface
(2016) Langmuir, 32 (28), pp. 7159-7169. Cited 21 times.
DOI: 10.1021/acs.langmuir.6b01658
19. Susarrey-Arce, A., Sorzabal-Bellido, I., Oknianska, A., McBride, F., Beckett, A.J., Gardeniers, J.G.E., Raval, R., Tiggelaar, R.M., **Diaz Fernandez, Y.A.**
Bacterial viability on chemically modified silicon nanowire arrays
(2016) Journal of Materials Chemistry B, 4 (18), pp. 3104-3112. Cited 34 times.
DOI: 10.1039/c6tb00460a
20. Syrenova, S., Wadell, C., Nugroho, F.A.A., Gschneidner, T.A., **Diaz Fernandez, Y.A.**, Nalin, G., Witlik, D., Westerlund, F., Antosiewicz, T.J., Zhdanov, V.P., Moth-Poulsen, K., Langhammer, C.
Hydride formation thermodynamics and hysteresis in individual Pd nanocrystals with different size and shape
(2015) Nature Materials, 14 (12), pp. 1236-1244. Cited 159 times.
DOI: 10.1038/nmat4409
21. Pallavicini, P., Cabrini, E., Casu, A., Dacarro, G., **Antonio Diaz-Fernandez, Y.**, Falqui, A., Milanese, C., Vita, F.
Silane-coated magnetic nanoparticles with surface thiol functions for conjugation with gold nanostars
(2015) Dalton Transactions, 44 (48), pp. 21088-21098. Cited 6 times.
DOI: 10.1039/c5dt02812d
22. **Diaz Fernandez, Y.A.**, Gschneidner, T.A., Wadell, C., Fornander, L.H., Lara Avila, S., Langhammer, C., Westerlund, F., Moth-Poulsen, K.
The conquest of middle-earth: Combining top-down and bottom-up nanofabrication for constructing nanoparticle based devices
(2014) Nanoscale, 6 (24), pp. 14605-14616. Cited 32 times.
DOI: 10.1039/c4nr03717k
23. Sun, L., **Diaz-Fernandez, Y.A.**, Gschneidner, T.A., Westerlund, F., Lara-Avila, S., Moth-Poulsen, K.
Single-molecule electronics: From chemical design to functional devices
(2014) Chemical Society Reviews, 43 (21), pp. 7378-7411. Cited 414 times.
DOI: 10.1039/c4cs00143e

24. Pallavicini, P., Dacarro, G., **Diaz-Fernandez, Y.A.**, Taglietti, A.
Coordination chemistry of surface-grafted ligands for antibacterial materials
(2014) Coordination Chemistry Reviews, 275, pp. 37-53. Cited 41 times.
DOI: 10.1016/j.ccr.2014.04.013
25. Gschneidtnr, T.A., **Fernandez, Y.A.D.**, Syrenova, S., Westerlund, F., Langhammer, C., Moth-Poulsen, K.
A versatile self-assembly strategy for the synthesis of shape-selected colloidal noble metal nanoparticle heterodimers
(2014) Langmuir, 30 (11), pp. 3041-3050. Cited 67 times.
DOI: 10.1021/la5002754
26. **Fernandez, Y.D.**, Sun, L., Gschneidtnr, T., Moth-Poulsen, K.
Research update: Progress in synthesis of nanoparticle dimers by self-assembly
(2014) APL Materials, 2 (1), art. no. 010702, . Cited 22 times.
DOI: 10.1063/1.4858295
27. Gschneidtnr, T.A., **Diaz Fernandez, Y.A.**, Moth-Poulsen, K.
Progress in self-assembled single-molecule electronic devices
(2013) Journal of Materials Chemistry C, 1 (43), pp. 7127-7133. Cited 34 times.
DOI: 10.1039/c3tc31483a
28. Drera, G., Sangaletti, L., Bondino, F., Malvestuto, M., Malavasi, L., **Diaz-Fernandez, Y.**, Dash, S., Mozzati, M.C., Galinetto, P.
Labeling interacting configurations through an analysis of excitation dynamics in a resonant photoemission experiment: The case of rutile TiO₂
(2013) Journal of Physics Condensed Matter, 25 (7), art. no. 075502, . Cited 13 times.
DOI: 10.1088/0953-8984/25/7/075502
29. Taglietti, A., **Diaz Fernandez, Y.A.**, Galinetto, P., Grisoli, P., Milanese, C., Pallavicini, P.
Mixing thiols on the surface of silver nanoparticles: Preserving antibacterial properties while introducing SERS activity
(2013) Journal of Nanoparticle Research, 15 (11), art. no. 2047, . Cited 16 times.
DOI: 10.1007/s11051-013-2047-x
30. Casu, A., Cabrini, E., Donà, A., Falqui, A., **Diaz-Fernandez, Y.**, Milanese, C., Taglietti, A., Pallavicini, P.
Controlled synthesis of gold nanostars by using a zwitterionic surfactant
(2012) Chemistry - A European Journal, 18 (30), pp. 9381-9390. Cited 80 times.
DOI: 10.1002/chem.201201024
31. **Fernandez, Y.A.D.**, Pasotti, L., Pallavicini, P., Hechavarria, J.M.F.
Exploiting micelle-driven coordination to evaluate the lipophilicity of molecules
(2012) Langmuir, 28 (26), pp. 9930-9943. Cited 2 times.
DOI: 10.1021/la3012316
32. Taglietti, A., **Diaz Fernandez, Y.A.**, Amato, E., Cucca, L., Dacarro, G., Grisoli, P., Necchi, V., Pallavicini, P., Pasotti, L., Patrini, M.
Antibacterial activity of glutathione-coated silver nanoparticles against gram positive and gram negative bacteria
(2012) Langmuir, 28 (21), pp. 8140-8148. Cited 272 times.
DOI: 10.1021/la3003838

33. Pallavicini, P., Bernhard, C., Dacarro, G., Denat, F., **Diaz-Fernandez, Y.A.**, Goze, C., Pasotti, L. et al.
Optical method for predicting the composition of self-assembled monolayers of mixed thiols on surfaces coated with silver nanoparticles
(2012) Langmuir, 28 (7), pp. 3558-3568. Cited 14 times.
DOI: 10.1021/la202995w
34. **Diaz-Fernandez, Y.A.**, Pallavicini, P., Pasotti, L., Milanese, C., Pellicer, E., Baró, M.D., Ren, Y., Malavasi, L.
Nanoscale phase separation in coated Ag nanoparticles
(2011) Nanoscale, 3 (10), pp. 4220-4225. Cited 4 times.
DOI: 10.1039/c1nr10832h
35. Amato, E., **Diaz-Fernandez, Y.A.**, Taglietti, A., Pallavicini, P., Pasotti, L., Cucca, L., Milanese, C., Grisoli, P., Dacarro, C., Fernandez-Hechavarria, J.M., Necchi, V.
Synthesis, characterization and antibacterial activity against gram positive and gram negative bacteria of biomimetically coated silver nanoparticles
(2011) Langmuir, 27 (15), pp. 9165-9173. Cited 188 times.
DOI: 10.1021/la201200r
36. Malavasi, L., Tealdi, C., Ritter, C., Pomjakushin, V., Gozzo, F., **Diaz-Fernandez, Y.**
Combined neutron and synchrotron X-ray diffraction investigation of the $\text{BaCe}_{0.85-x}\text{Zr}_x\text{Y}_{0.15}\text{O}_{3-\Delta}$ ($0.1 \leq x \leq 0.4$) proton conductors
(2011) Chemistry of Materials, 23 (5), pp. 1323-1330. Cited 33 times.
DOI: 10.1021/cm1034326
37. Pallavicini, P., Chirico, G., Collini, M., Dacarro, G., Donà, A., D'Alfonso, L., Falqui, A., **Diaz-Fernandez, Y.**, Freddi, S., Garofalo, B., Genovese, A., Sironi, L., Taglietti, A.
Synthesis of branched Au nanoparticles with tunable near-infrared LSPR using a zwitterionic surfactant
(2011) Chemical Communications, 47 (4), pp. 1315-1317. Cited 80 times.
DOI: 10.1039/c0cc02682d
38. Tealdi, C., Ferrara, C., Malavasi, L., Mustarelli, P., Ritter, C., Chiodelli, G., **Diaz-Fernandez, Y.A.**
High-temperature neutron diffraction study of $\text{La}_{2-x}\text{Sr}_x\text{CoO}_4$: Correlation between structure and transport properties
(2010) Physical Review B - Condensed Matter and Materials Physics, 82 (17), art. no. 174118, .
Cited 30 times.
DOI: 10.1103/PhysRevB.82.174118
39. Drera, G., Mozzati, M.C., Galinetto, P., **Diaz-Fernandez, Y.**, Malavasi, L., Bondino, F. et al.
Response to "comment on 'Enhancement of room temperature ferromagnetism in N-doped TiO_2-x rutile: Correlation with the local electronic properties' " [Appl. Phys. Lett. 97, 186101 (2010)]
(2010) Applied Physics Letters, 97 (18), art. no. 186102, . Cited 3 times.
DOI: 10.1063/1.3509410
40. Pallavicini, P., Taglietti, A., Dacarro, G., **Antonio Diaz-Fernandez, Y.**, Galli, M., Grisoli, P., Patrini, M., Santucci De Magistris, G., Zanoni, R.
Self-assembled monolayers of silver nanoparticles firmly grafted on glass surfaces: Low Ag+ release for an efficient antibacterial activity
(2010) Journal of Colloid and Interface Science, 350 (1), pp. 110-116. Cited 133 times.
DOI: 10.1016/j.jcis.2010.06.019

41. **Diaz-Fernandez, Y.A.**, Mottini, E., Pasotti, L., Craparo, E.F., Giammona, G., Cavallaro, G., Pallavicini, P.
Multicomponent polymeric micelles based on polyaspartamide as tunable fluorescent pH-window biosensors
(2010) Biosensors and Bioelectronics, 26 (1), pp. 29-35. Cited 11 times.
DOI: 10.1016/j.bios.2010.04.048
42. Drera, G., Mozzati, M.C., Galinetto, P., **Diaz-Fernandez, Y.**, Malavasi, L., Bondino, F., Malvestuto, M., Sangaletti, L.
Enhancement of room temperature ferromagnetism in N-doped TiO₂-x rutile: Correlation with the local electronic properties
(2010) Applied Physics Letters, 97 (1), art. no. 012506, . Cited 38 times.
DOI: 10.1063/1.3458699
43. Denat, F., **Diaz-Fernandez, Y.A.**, Pasotti, L., Sok, N., Pallavicini, P.
A micellar multitasking device: Sensing pH windows and gauging the lipophilicity of drugs with fluorescent signals
(2010) Chemistry - A European Journal, 16 (4), pp. 1289-1295. Cited 25 times.
DOI: 10.1002/chem.200902427
44. Rossella, F., Galinetto, P., Mozzati, M.C., Malavasi, L., **Diaz Fernandez, Y.**, Drera, G., Sangaletti, L.
TiO₂ thin films for spintronics application: A raman study
(2010) Journal of Raman Spectroscopy, 41 (5), pp. 558-565. Cited 77 times.
DOI: 10.1002/jrs.2465
45. Malavasi, L., Brunelli, M., **Diaz-Fernandez, Y.**, Pahari, B., Mustarelli, P.
Charge ordering driven metal-insulator transition in the layered cobaltite HoBaCo₂O_{5.5}
(2009) Physical Review B - Condensed Matter and Materials Physics, 80 (15), art. no. 153102, .
Cited 9 times.
DOI: 10.1103/PhysRevB.80.153102
46. Artioli, G.A., Malavasi, L., Mozzati, M.C., **Diaz Fernandez, Y.**
Control of F-doping in pnictide high-temperature superconductors
(2009) Journal of the American Chemical Society, 131 (34), pp. 12044-12045. Cited 19 times.
DOI: 10.1021/ja904126h
47. Pallavicini, P., **Diaz-Fernandez, Y.A.**, Pasotti, L.
Micelles as nanosized containers for the self-assembly of multicomponent fluorescent sensors
(2009) Coordination Chemistry Reviews, 253 (17-18), pp. 2226-2240. Cited 95 times.
DOI: 10.1016/j.ccr.2008.11.010
48. Denat, F., **Diaz-Fernandez, Y.A.**, Pallavicini, P., Pasotti, L., Rousselin, Y., Sok, N.
The Cu(II) complex of a C-lipophilized 13aneN₄ macrocycle with an additional protonable amino group as micellar anion receptor
(2009) Dalton Transactions, (34), pp. 6751-6758. Cited 15 times.
DOI: 10.1039/b907289f
49. Pallavicini, P., **Diaz-Fernandez, Y.A.**, Pasotti, L.
Smoothly shifting fluorescent windows: A tunable "off-on-off" micellar sensor for pH
(2009) Analyst, 134 (10), pp. 2147-2152. Cited 23 times.
DOI: 10.1039/b913195g

50. **Díaz-Fernández, Y.**, Malavasi, L., Quartarone, E.
Flexible deposition of nanocrystalline vanadium oxide thin films
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Principali contribute in Conferenze Scientifiche

- XV Italian Conference on Supramolecular Chemistry **Keynote speaker**, Salerno (June 2022)
- EMRS 2021 Fall Meeting **Invited Lecture**, on-line event (Sept 2021)
- Eurobiofilms 2019 **Plenary lecture**, Glasgow, (Sept 2019)
- Microbe-Metal Interactions, Industrial Workshop, London, (Nov 2019)
- Nanolithography of Biointerfaces, Faraday Discussion, London, (July 2019)
- Hot-electron science and microscopic processes in plasmonics and catalysis
Faraday Discussion, London (Feb 2019)
- Complex Molecular Surfaces and Interfaces, Faraday Discussion, Sheffield (July 2017)
- Functional Nanomaterials in Industrial Applications, **Keynote speaker**, Preston (March 2016)

PERSONAL SKILLS

Madre lingua(s) Spanish

Altre lingue(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Italian	C2	C2	C2	C2	C2
Title: PhD Degree 2012 (University of Pavia, Italy)					
English	C2	C2	C2	C2	C2
Title: IELTS Academic 2014 (average score 7.5) followed by 8 years working in UK					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- Training course “Managing difficult conversations at work”.
- Bond Solon course on “Expert Witness”
- Efficient management of challenging interdisciplinary discussion environments, sandpits, and brainstorms for advanced problem solving and breaking down communication barriers
- Excellent communication skills obtained across several years of experience coordinating multidisciplinary research and development projects, involving complementary fields (i.e. material science, clinical medicine, biology, physical sciences, engineering, regulatory, finance)

Managerial skills

- Alderley Park Pre-accelerator Workshop on Start Up development (2018)
- Management Course “Unconscious bias at the working environment” (2018)
- Leadership: responsible for small research teams (up to 6 people)
- Management of complex research and development projects
- Coaching Course for Postdoctoral Researchers (2017)
- Task prioritisation applying Eisenhower’s principles of time management.

Digital competence

- Excellent command of MS Windows software and MS Office suite (word processor, spread sheet, presentation software)
 - Advanced user/developer of imaging-processing software (MATLAB, Fiji)
 - Software development and programming skills of complex user interfaces and data processing (MATLAB, C++, Borland Delphi, HTML, PHP)
 - Basic command of Linux
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