

## Publicazioni prodotte:

- 1) S. Ruggieri, S. Mizzone, C. Nardon, E. Cavalli, C. Sissa, M. Anselmi, P.G. Cozzi, A. Gualandi, M. Sanadar, A. Melchior\*, F. Zinna, O. G. Willis, L. Di Bari\*, and F. Piccinelli\*. Title: Circularly Polarized Luminescence from New Heteroleptic Eu(III) and Tb(III) Complexes. Journal: *Inorg. Chem.* 2023, 62, 23, 8812–8822
- 2) A.N.C. Neto\*, R.T. Moura Jr, L.D. Carlos, O.L. Malta, M. Sanadar, A. Melchior\*, E. Kraka, S. Ruggieri, M. Bettinelli, and F. Piccinelli\*. Title: Dynamics of the Energy Transfer Process in Eu(III) Complexes Containing Polydentate Ligands Based on Pyridine, Quinoline, and Isoquinoline as Chromophoric Antennae.. Journal: *Inorg. Chem.* 2022, 61, 41, 16333–16346.
- 3) F. Piccinelli, C. Nardon, M. Bettinelli, A. Melchior, M. Tolazzi, F. Zinna, L. Di Bari. Title: Lanthanide-Based Complexes Containing a Chiral trans-1,2-Diaminocyclohexane (DACH) Backbone: Spectroscopic Properties and Potential Applications. Journal: *ChemPhotoChem* 2022,6, e202100143 (1 of 17). research minireview
- 4) C. De Rosa, A. Melchior, M. Sanadar, M. Tolazzi, A. Duerkop and F. Piccinelli. Title: Isoquinoline-based Eu(III) luminescent probes for citrate sensing in complex matrix. Journal: *Dalton Trans.*, 2021,50, 4700-4712.
- 5) C. De Rosa, A. Melchior\*, M. Sanadar, M. Tolazzi, A. Giorgetti, R. P. Ribeiro, C. Nardon, and F. Piccinelli\*. Title: Effect of the Heteroaromatic Antenna on the Binding of Chiral Eu(III) Complexes to Bovine Serum Albumin. Journal: *Inorg. Chem.* 2020, 59, 17, 12564–12577.
- 6) L. Arrico, C. De Rosa, L. Di Bari\*, A. Melchior, and F. Piccinelli\*. Title: Effect of the Counterion on Circularly Polarized Luminescence of Europium(III) and Samarium(III) Complexes. Journal: *Inorg. Chem.* 2020, 59, 7, 5050–5062.
- 7) F. Piccinelli, C. De Rosa, A. Melchior, G. Faura, M. Tolazzi and M. Bettinelli. Title: Eu(III) and Tb(III) complexes of 6-fold coordinating ligands showing high affinity for the hydrogen carbonate ion: a spectroscopic and thermodynamic study. Journal: *Dalton Trans.*, 2019,48, 1202-1216.
- 8) G. Albano, F. Zinna, A. Taddeucci, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola. Title: Chiral Diketopyrrolo[3,4-c]pyrrole-1,2,3-1H-triazole Dyes with Highly Tuneable Properties in Solution and Thin Films. Journal: *Chem. Eur. J.* 2023, e202300291.
- 9) G. Albano, F. Zinna, F. Urraci, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola. Title: Aggregation Modes of Chiral Diketopyrrolo[3,4-c]pyrrole Dyes in Solution and Thin Films. Journal: *Chem. Eur. J.* 2022, e202201178.
- 10) Francesco Zinna, Lorenzo Arrico, Tiziana Funaioli, Lorenzo Di Bari, Mariacecilia Pasini, Chiara Botta, Umberto Giovanella. Title: Modular chiral Eu(III) complexes for efficient circularly polarized OLEDs. Journal: *J. Mater. Chem. C*, 2022,10, 463-468.
- 11) Francesco Zinna, Mariacecilia Pasini, Matteo Cabras, Guido Scavia, Chiara Botta, Lorenzo Di Bari, Umberto Giovanella. Title: Impact of chiral ligands on photophysical and electro-optical properties of  $\beta$ -diketonate europium complexes in circularly polarized OLEDs. Journal: *Chirality*. 2023; 35(5): 270-280. doi:10.1002/chir.23538.
- 12) M. Pasini, F. Galeotti, W. Mróz, B. M. Squeo, S. Luzzati, C. Botta, G. Scavia, U. Giovanella. Title: Synthetic Strategy for the Development of Conjugated Polyelectrolytes as Cathode Interfacial Layers:

Toward Sustainable Organic Devices. Journal: *Macromol. Chem. Phys.* 2023, 224, 2300130.  
<https://doi.org/10.1002/macp.202300130>

13) E. Bassan, Y. Dai, D. Fazzi, A. Gualandi, P. G. Cozzi, F. Negri and P. Ceroni Title: Effect of the iodine atom position on the phosphorescence of BODIPY derivatives: a combined computational and experimental study Journal: *Photochemical & Photobiological Sciences* (2022) 21:777–786.

14) O.J. Willis, F. Petri, D. De Rosa, A. Mandoli, R. Pal, F. Zinna, L. Di Bari Title: Two-Photon Circularly Polarized Luminescence of Chiral Eu Complexes Journal: *J. Am. Chem. Soc.* 2023, 145, 25170–25176.

15) O.J. Willis, F. Zinna, L. Di Bari Title: NIR-Circularly Polarized Luminescence from Chiral Complexes of Lanthanides and d-Metals Journal: *Angew. Chem. Int. Ed.* 2023, e202302358.

16) O.J. Willis, A. Pucci, E. Cavalli, F. Zinna, L. Di Bari Title: Intense 1400–1600 nm circularly polarised luminescence from homo- and heteroleptic chiral erbium complexes Journal: *J. Mater. Chem. C*, 2023, 11, 5290.

17) G. Albano, M. Gorecki, T. Javorfi, R. Hussein, G. Siligardi, G. Pescitelli, L. Di Bari Title: Spatially resolved chiroptical study of thin films of benzo[1,2-b:4,5-b']dithiophene-based oligothiophenes by synchrotron radiation electronic circular dichroism imaging (SR-ECDi) technique Journal: *Aggregate*. 2022;3:e193.

18) O. Willis, F. Zinna, G. Pescitelli, C. Micheletti, L. Di Bari. Title: Remarkable near-infrared chiroptical properties of chiral Yb, Tm and Er complexes. Journal: *Dalton Trans.*, 2022, 51, 518.

19) G. Albano, L.A. Aronica, A. Minotto, F. Cacialli, L. Di Bari Title: Chiral Oligothiophenes with Remarkable Circularly Polarized Luminescence and Electroluminescence in Thin Films. Journal: *Chem. Eur. J.* 2020, 26, 16622

20) S. Voci, F. Zinna, L. Arrico, S. Grass, L. Bouffier, J. Lacour, L. Di Bari, N. Sojic. Title: Chiroptical detection of a model ruthenium dye in water by circularly polarized-electrochemiluminescence. Journal: *Chem. Commun.*, 2020, 56, 5989

21) F. Zinna, G. Albano, A. Taddeucci, T. Colli, L.A. Aronica, G. Pescitelli, L. Di Bari Title: Emergent Nonreciprocal Circularly Polarized Emission from an Organic Thin Film. Journal: *Adv. Mater.* 2020, 2002575.

22) F. Zinna, G. Pescitelli, L. Di Bari Title: Circularly polarized light at the mirror: Caveats and opportunities Journal: *Chirality*. 2020;32:765

23) O.G. Willis, F. Petri, G. Pescitelli, A. Pucci, E. Cavalli, A. Mandoli, F. Zinna, L. Di Bari Title: Efficient 1400–1600 nm Circularly Polarized Luminescence from a Tuned Chiral Erbium Complex Journal: *Angew. Chem. Int. Ed.* 2022, 61, e202208326.

### **Comunicazioni a congressi nazionali (presentate dal primo autore della lista)**

1. Comunicazione Poster: G. Albano, A. Taddeucci, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, G. M. Farinola, L. Di Bari, “Chiral diketopyrrolo[3,4-c]pyrrole dyes with remarkable chiroptical properties in thin films”. XXVII Congresso Nazionale della Società Chimica Italiana (SCI 2021), Evento Virtuale, 14 – 23 Settembre 2021, Libro degli abstract (ISBN: 978-88-94952-24-7), pag. ORG PO003.

2. Comunicazione Poster: G. Albano, F. Zinna, F. Urraci, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola, "Chiroptical Investigation of the Aggregation Modes of Chiral Diketopyrrolo[3,4-c]pyrrole Dyes in Solution and Thin Films". XL Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana (CDCO2022), Palermo (Italia), 11 – 15 Settembre 2022, Atti Congressuali, pag. 160.
3. Comunicazione Orale: G. Albano, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola, "Aggregation modes of chiral diketopyrrolo[3,4-c]pyrroles: synthesis and chiroptical investigation in solution and thin films". ChirItaly 2022, Matera (Italia), 19 – 21 Settembre 2022, Atti Congressuali, pag. O8
4. Comunicazione Orale: G. Albano, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola, "Aggregation modes of chiral diketopyrrolo[3,4-c]pyrrole dyes with highly tunable properties in solution and thin films". XLI Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana (CDCO2023), Roma (Italia), 10 – 14 Settembre 2023, Atti Congressuali, pag. 140.
5. Comunicazione orale: Silvia Ruggieri, Lorenzo Di Bari, Francesco Zinna, Andrea Gualandi, Cristina Sissa, Enrico Cavalli, Martina Sanadar, Andrea Melchior, Fabio Piccinelli, "STUDYING NEW HETEROLEPTIC CHIRAL Tb(III)-BASED LUMINESCENT COMPLEXES IN BOTH SOLID STATE AND SOLUTION". XLVIII Congresso Nazionale di Chimica Inorganica, Pisa (Italia), 6-9 Settembre 2022.

#### **Comunicazioni a congressi internazionali (presentate dal primo autore della lista)**

1. Comunicazione Poster: G. Albano, G. Decandia, M. A. M. Capozzi, A. Punzi, G. M. Farinola, "Infrared irradiation as sustainable energy source in Pd-catalyzed chemistry: from direct to oxidative C-H arylation of (hetero)arenes". European Symposium on Organic Chemistry (ESOC 21), Evento Virtuale, 5 – 6 Luglio 2021, Libro degli abstract, pag. 171.
2. Comunicazione Poster: G. Albano, A. Taddeucci, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, G. M. Farinola, L. Di Bari, "Reciprocal vs. non-reciprocal circularly polarized absorption in thin films of chiral diketopyrrolo [3,4-c]pyrroles". 15th International conference on materials chemistry (MC15), Evento Virtuale, 12 – 15 Luglio 2021, Libro degli abstract dei poster, pag. P02.
3. Comunicazione Poster: U. Giovanella, F. Zinna, O. G. Willis, M. Pasini, C. Botta, L. Di Bari "Lanthanides-based circularly polarized OLEDs". 33rd International Symposium on Chirality (Chirality 2023), Roma (Italia), 24 – 27 Luglio 2023.
4. Comunicazione Poster: S. Ruggieri, S. Mizzoni, O. Willis, F. Zinna, L. Di Bari, A. Gualandi, M. Sanadar, A. Melchior, C. Sissa, E. Cavalli, F. Piccinelli. "Studying new heteroleptic chiral Ln(III)-based luminescent complexes". 33rd International Symposium on Chirality (Chirality 2023), Roma (Italia), 24 – 27 Luglio 2023.
5. Comunicazione Orale: G. Albano, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, G. M. Farinola, L. Di Bari, "Chiroptical study of the aggregation modes of chiral diketopyrrolo[3,4-c]pyrrole dyes in solution and thin films". Merck Young Chemists' Symposium 2021 (MYCS 2021), Rimini (Italia), 22 – 24 Novembre 2021, Proceedings (ISBN: 978-88-94952-25-4), pag. 82.
6. Comunicazione Orale: G. Albano, F. Zinna, M. A. M. Capozzi, G. Pescitelli, A. Punzi, L. Di Bari, G. M. Farinola, "Chiral diketopyrrolo[3,4-c]pyrrole-based dyes with tunable properties in solution

and thin films". 33rd International Symposium on Chirality (Chirality 2023), Roma (Italia), 24 – 27 Luglio 2023, Libro degli abstract, pag. 40.

7. comunicazione orale: Fabio Piccinelli, Silvia Mizzoni, Silvia Ruggieri, François Riobé, Olivier Maury, Francesco Zinna, Lorenzo Di Bari, Martina Sanadar, Andrea Melchior "Chiral lanthanide(III) complexes with potential applications in the field of bioimaging and biosensing". 33rd International Symposium on Chirality (Chirality 2023), Roma (Italia), 24 – 27 Luglio 2023.

**Comunicazioni orali su invito (a congressi o presso enti di ricerca nazionali ed internazionali):**

1. F. Piccinelli. Eu(III) and Tb(III) complexes for biosensing applications. CIMTEC (international conference on modern materials and technologies) 2022; Perugia (Italia) 20-29 giugno 2022. (<http://2022.cimteccongress.org/invited-lectures-br/-9th-forum-on-new-materials>).
2. F. Piccinelli. Chiral lanthanide(III) complexes with potential applications in the field of bioimaging and biosensing. 8th International Conference on Excited States of Transition Elements (ESTE 2023). 3-8 Settembre 2023, Swieradow-Zdroj (Polonia) ([http://ctt-intech.pl/este\\_2023/?p=scope](http://ctt-intech.pl/este_2023/?p=scope)).
3. F. Piccinelli. CHIRAL Eu(III) and Tb(III) COMPLEXES FOR BIOSENSING. 3rd International Caparica Christmas Conference on Translational Chemistry 2019. 2-5 Dicembre 2019, Caparica (Portogallo) ([Oral Speakers | 3rd International Caparica Christmas Conference on Translational Chemistry \(bioscopegroup.org\)](http://www.bioscopegroup.org)).
4. M. Bettinelli. "Introduction to the spectroscopy of lanthanide ions: Electronic structure and optical spectroscopy of trivalent lanthanide ions in compounds", presso il centro di ricerca "Chemistry Interdisciplinary Project" dell'Università di Camerino; 21 Novembre 2022; Camerino (Italia).
5. F. Piccinelli. "Introduction to the spectroscopy of lanthanide ions and applications of their complexes in the biological field"; presso il centro di ricerca "Chemistry Interdisciplinary Project" dell'Università di Camerino; 21 Novembre 2022; Camerino (Italia).
6. S. Ruggieri. "New Ln(III)-based chiral complexes: synthesis, characterization and chiroptical activity"; presso il centro di ricerca "Chemistry Interdisciplinary Project" dell'Università di Camerino; 21 Novembre 2022; Camerino (Italia).
7. F. Piccinelli. "Chiral lanthanide(III) complexes with potential applications in the field of bioimaging and biosensing"; 29 Giugno 2023; istituto di chimica di Clermont-Ferrand (Francia).

**Premi ottenuti a seguito della presentazione di dati collegati al progetto:**

1. Best Oral Presentation award given to:  
S. Ruggieri for the contribution titled "NIR-CPL active Yb(III) complexes bearing both central and axial chirality". The 1<sup>st</sup> French - Italian Coordination Chemistry days, 24-26 Gennaio 2024; Strasbourg (France).

**Seguiteci sull'account social del progetto:**

"X" @ChiralabPrin