■ **74** pubblicazioni su riviste internazionali

■ **2** capitoli di libro

■ **1** brevetto internazionale

■ **3** atti di convegno

■ **5** presentazioni orali su invito

■ **20** partecipazioni a convegni, seminari e meeting come relatore con un contributo orale

■ **4** partecipazioni a convegni, seminari e meeting come relatore con un poster

h-index: **23** (Scopus- ottobre 2023)

**1481** citazioni (Scopus-ottobre 2023)

**Pubblicazioni su riviste ISI:**

§: uguale contributo

1. **Mixed β-γ-Cyclodextrin Branched Polymer with Multiple Photo Chemotherapeutic Cargos**

Laneri, F.; Seggio, M.; Parisi, C.; Szabolcs, B.; Fraix, A.; Malanga, M.; Sortino, S.

ACS Applied Polymer Materials, accepted, DOI: 10.1021/acsapm.3c01157

1. **On the photobehaviour of curcumin in biocompatible hosts: The role of H-abstraction in the photodegradation and photosensitization**

Laneri, F.; Conte, C.; Parisi, C.; Catanzano, O.; Fraix, A.\*; Quaglia, F.; Sortino, S.

*J. Photochem. Photobiol*. *B*, **2023**, *245*, 112756.

1. **Red-Light-Photosensitized NO Release and Its Monitoring in Cancer Cells with Biodegradable Polymeric Nanoparticles**

Fraix, A.; § Parisi, C.; § Longobardi, G. §; Conte, C.; Pastore, A.; Stornaiuolo, M.; Graziano, A. C. E. ; Alberto, M. E. ; Frances-Monerris, A.; Quaglia, F.; Sortino, S.

*Biomacromolecules*, **2023**, *24*, 3887-3897.

1. **Different In Silico Approaches Using Heterocyclic Derivatives against the Binding between Different Lineages of SARS-CoV-2 and ACE2**

Sipala, F.; Cavallaro, G.; Forte, G.; Satriano, C.; Giuffrida, A.; Fraix, A.; Spadaro, A.; Petralia, S.; Bonaccorso, C.; Fortuna, C. G.; Ronsisvalle, S.

*Molecules*, **2023**, *28*, 3908.

1. **A Supramolecular Nanoassembly of Lenvatinib and a Green Light-Activatable NO Releaser for Combined Chemo-Phototherapy**

Laneri, F.; Licciardello, N.; Suzuki, Y.; Graziano, A. C. E.; Sodano, F.; Fraix, A.\*; Sortino, S.

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1. **A molecular dyad delivered by biodegradable polymeric nanoparticles for combined PDT and NO-PDT in cancer cells**

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1. **Doxorubicin-NO Releaser Molecular Hybrid Activatable by Green Light to Overcome Resistance in Breast Cancer Cells**

Parisi, C.; Moret, F.; Fraix, A.; Menilli, L.; Failla, M.; Sodano, F.; Conte, C.; Quaglia, F.; Reddi, E.; Sortino, S.

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1. **Green synthesis of near-infrared plasmonic gold nanostructures by Pomegranate extract and their supramolecular assembling with chemo and photo-therapeutics**

Seggio, M. ; Laneri, F.; Graziano, A. C. E.; Natile, M. M. ; Fraix, A.; Sortino, S.

*Nanomaterials*, **2022**, *12*, 4476.

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1. **Enhancing the Anticancer Activity of Sorafenib through Its Combination with a Nitric Oxide Photodelivering β-Cyclodextrin Polymer**

Laneri, F.; Graziano, A. C. E.; Seggio, M.; Fraix, A.; Malanga, M.; Beni, S.; Longobardi, G.; Conte, C.; Quaglia, F.; Sortino, S.

*Molecules,* **2022**, 27, 1918.

1. **Phosphonodithioformate-amine coupling reaction: from basic discovery to application for the functionalization of liposomes**

Khalil, M.; Jeanne Dit Fouque, D.; Berchel, M.; Fraix, A.; Sortino, S.; Memboeuf, A.; Jaffres, P.-A.

*Phosphorus, Sulfur and Silicon and the Related Elements*, **2022**, *197*, 462-467.

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1. **Development of Spirulina sea-weed raw extract/polyamidoamine hydrogel system as novel platform in photodynamic therapy: Photostability and photoactivity of chlorophyll a**

Rizzo, V.; Gubitosa, J.; Fini, P.; Fraix, A.;Sortino, S.; Agostiano, A.; Cosma, P.

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1. **Photodegradation of antibiotics by noncovalent porphyrin-functionalized TiO2 in water for the bacterial antibiotic resistance risk management**

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**Capitolo di libro:**

1. **Chapter Five - Light-triggered unconventional therapies with engineered inorganic nanoparticles**

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**Atti di convegno:**

1. **Study of the stability of O,O -dialkyl- O -arylthiophosphate: evidence of the formation of O,S -dialkyl- O –arylphosphate.**

Le Corre, S.S.; Fraix, A.; Berchel, M.; Jaffrès, P.-A.

*Phosphorus Sulfur Silicon Relat. Elem*., **2015**, *190*, 747-750.

1. **Synthesis of aryl-thiophosphonates via a [1,2] or [1,3] phospho-fries rearrangement.**

Denis, C.; Fraix, A.; Berchel, M.; Salaün, J.-Y.; Jaffrès, P.-A.

*Phosphorus Sulfur Silicon Relat. Elem*., **2011**, *186*, 790-791.

1. **New lipo-phosphoramidates for gene delivery.**

Jaffrès, P.-A.; Fraix, A.; Lorilleux, C.; Berchel, M.; Couthon-Gourvès, H.; Haelters, J.-P., Yaouanc; J.-J., Burel, L.; Giamarchi, P.; Midoux, P.; Montier, T.; Lehn, P.

*Phosphorus Sulfur Silicon Relat. Elem*., **2011**, *186*, 918-920.

**Invited talks:**

1. **Photoactivatable release of unconventional therapeutics**

Invited Keynote lecture, XLVIII Italian Conference of Inorganic Chemistry (Pisa-Italy)

6 settembre 2022

1. **A Three-Color Fluorescent Supramolecular Nanoassembly for Bimodal Phototherapy Imaged by Two-Photon Excitation with a Single NIR Light**

Szejtli-award lecture, 20th International Cyclodextrin Symposium (Giardini Naxos – Italy)

16 giugno 2022

1. **Multi-photoresponsive systems for therapeutic applications**

JED3M- Brest (France)

19 febbraio 2019

1. **Multi-photoresponsive systems for therapeutic applications**

Seminario CEMCA-UMR 6521- Université de Bretagne Occidentale (France)

2 maggio 2018

1. **Utilisation de l’ADN comme médicament, développement de nouveaux vecteurs phospholipidiques.**

Sessione pubblica dell’Accademia delle Scienze Francese (Rennes – France)

13 maggio 2014

**Partecipazione come relatore a convegni con una presentazione orale:**

1. **New Generator of Peroxynitrite Activatable with Red Light**

Fraix, A.; Parisi, C.; Failla, M.; Reddi, E.; Lazzarato, L.; Sortino, S.

28th PhotoIUPAC, Amsterdam (Netherlands), luglio 2022.

1. **Innovative Photoactive Liposomes for Doxorubicin Delivery**

Fraix, A.; Sortino, S.; Graziano, A.C.E.; Seggio, M.

International conference on Photochemistry, luglio 2021, Virtual.

1. **“Three-bullets” loaded mesoporous silica nanoparticles for combined photo/chemotherapy**

Fraix A.; Tessaro, A. L.; Pedrozo da Silva A. C.; Gazzano E.; Riganti C.; Sortino, S.

NanoBio&Med 2019 International Conference, Barcelona (Spain), novembre 2019.

1. **A three-color fluorescent supramolecular nanoassembly for bimodal phototherapy imaged by two-photon excitation with a single NIR light**

Fraix, A.; Kirejev,V.; Malanga, M:; Ericson M: B.; Sortino, S.

UK-IT joint meeting on Photochemistry 2019, Lipari (Italy), giugno 2019.

**Premio per la migliore presentazione orale**

1. **Light-regulated NO release as a novel strategy to overcome doxorubicin multidrug resistance**

Fraix, A.; Chegaev, K.; Gazzano, E.; Abd-Ellatef, G. E. F.; Blangetti, M.; Rolando, B.; Conoci, S.; Riganti, C.; Fruttero, R.; Gasco, A.; Sortino, S.

27th PhotoIUPAC Symposium, Dublin (Ireland), luglio 2018.

1. **Light-regulated NO release as a novel strategy to overcome doxorubicin multidrug resistance**

Fraix, A.; Chegaev, K.; Gazzano, E.; Abd-Ellatef, G. E. F.; Blangetti, M.; Rolando, B.; Conoci, S.; Riganti, C.; Fruttero, R.; Gasco, A.; Sortino, S.

Congresso Congiunto Sicilia-Calabria SCI 2018, Catania (Italy), febbraio 2018

1. **Core-shell polymer nanoparticles for combined photo/chemotherapy of cancers overexpressing CD44-receptor.**

Maiolino,S.; Moret,F.; Conte,C.; Fraix,A.; Tirino,P.; Ungaro,F.; Reddi,E.; Sortino,S.; Quaglia, F.

Italian Photochemistry meeting 2015, Bologna (Italy), dicenbre 2015.

1. **Polymer nanoparticles with electrostatically loaded multicargo for combined cancer phototherapy.**

Fraix, A.; Manet, I.; Ballestri, M.; Guerrini, A.; Dambruoso, P.; Sotgiu, G.; Varchi, G.; Camerin, M.; Coppellotti, O.; Sortino, S.

NanoBioApp, Barcelona (Spain), settembre 2015.

1. **Multi-photoresponsive supramolecular hydrogels with therapeutic and imaging properties.**

Fraix, A.; Gref,R.; Sortino, S.

Italian photochemistry meeting, Milan (Italy), novembre 2014.

1. **A multifunctional bichromophoric nanoaggregate for fluorescence imaging and simultaneous photogeneration of RNOS and ROS.**

Fraix A; Gonçalves A.R.L.; Cardile V.; Graziano A.C.E.; Theodossiou T. A.; Yannakopoulou K.; Sortino S.

Italian photochemistry meeting, Potenza (Italy), novembre 2013.

1. **An engineered nanoplatform for bimodal anticancer phototherapy with dual color fluorescence detection of sensitizers.**

Fraix A.; Kandoth N.; Manet, I.; Cardile, V.; Graziano, A.C.E.; Gref, R.; Sortino, S.

26th International Conference on Photochemistry, Leuven (Belgium), luglio2013.

1. **Photoactivated multimodal therapy based on CD-nanoparticles, last microscopic imaging and new systems development.**

Fraix A.; Kandoth N.; Manet, I.; Cardile, V.; Graziano, A.C.E.; Gref, R.; Sortino, S.

CYCLON 6th Scientific meeting, Paris (France), ottobre 2012.

1. **Overview of our recent realizations in the development of new cyclodextrin-based nanoparticles for photoactivated multimodal therapy.**

Fraix A.; Kandoth N.; Manet, I.; Cardile, V.; Graziano, A.C.E.; Gref, R.; Sortino, S.

CYCLON 5th Scientific meeting, Reykjavik (Iceland), giugno 2012.

1. **Cyclodextrin-based polymeric nanoparticles for photoactivated multimodal therapy.**

Fraix A.; Kandoth N.; Gref R.; Sortino S.

CRS Nordic chapter, Reykjavik (Iceland), giugno 2012.

1. **New cationic lipids for gene delivery.**

Fraix, A.; Montier, T.; Laurent, P.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.  
Symposium "Sustainable Chemistry & Related Areas", Rennes (France), febbraio 2010.

1. **Nouveaux phospholipides soufrés pour une application en transfert de gènes.**

Fraix, A.; Montier, T.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.

Journée de doctorants et post-doctorants en Biologie Santé en Bretagne, Brest (France), giugno 2011.

1. **Nouveaux phospholipides soufrés pour une application en transfert de gènes.**

Fraix, A.; Le Gall, T.; Montier, T.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.  
Journées scientifiques de la S.C.F. Bretagne-Pays de la Loire, Noirmoutier (France), giugno 2011.

1. **Nouveaux phospholipides pour la vectorisation d’acides nucléiques.**

Fraix, A.; Le Gall, T.; Montier, T.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.

Séminaire de l’UMR 6521, Brest (France), dicembre 2009.

1. **Nouveaux lipides cationiques pour la vectorisation d’ADN**

Fraix, A.; Montier, T.; Laurent, P.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.  
SECO 46, La Rochelle (France), maggio 2009.

1. **Nouveaux lipides cationiques pour la transfection de cellules hépatiques**

Fraix, A.; Laurent, V.; Loyer, P.; Jaffrès, P.A.; Yaouanc, J.J.; Montier, T.; Lehn, P.  
Journées scientifiques de la S.C.F. Bretagne-Pays de la Loire, Trégastel (France), maggio 2009.

**Partecipazione come relatore a convegni con un poster:**

1. **Study of Curcumin Photosensitizing Properties in Biocompatible Delivery**

Fraix, A.; Lecuyer, T.; Conte, C.; Catanzano, O.; Quaglia, F.; Sortino, S.

PDT-PDD 2022: Photodynamic Therapy and Photodiagnosis update 2022, Nancy (France), Ottobre 2022.

1. **A fluorescent molecular hybrid for bimodal phototherapy.**

Fraix, A.; Guglielmo, S.; Gasco, A.; Fruttero, R.; Gref, R.; Cardile, V.; Graziano, A.C.E.; Sortino, S.

XXVth IUPAC Chemistry, Bordeaux (France), luglio 2014.

1. **New biosensitive cationic lipids for gene delivery.**

Fraix, A.; Le Gall, T.; Montier, T.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.  
MIS 2011, Quimper (France), maggio 2011.

1. **New biosensitive cationic lipids for gene delivery.**

Fraix, A.; Le Gall, T.; Montier, T.; Yaouanc, J.J.; Couthon-Gourvès, H.; Haelters, J.P.; Lehn, P.; Jaffrès, P.A.

BOSS XIIth, Namur (Belgium), luglio 2010.