


Raffaele Saladino

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Gender mail | Date of birth 31/08/1964 | Nationality Italian

Full professor in Organic Chemistry SSD CHIM/O6, Area 03/C1-Chemical Sciences, University of Tuscia (Viterbo, Italy).

VITERBO 08-03-2021

EDUCATION AND TRAINING

- 1989 Graduation 110/110 cum laude in Industrial Chemistry (topic: Organic and Biological Chemistry) at the University "La Sapienza" Rome, Italy.
- 1989 Ministerial authorization for the profession of Chemist.
- 1992 Qualification for teaching Chemistry in secondary schools.
- 1992 Assistant Professor of Organic Chemistry at University of Tuscia, Viterbo (Italy).
- 1993 PhD in Chemical Science
- 1994 Post-doctoral position at the Department of Chemistry of the University of Montréal (Quebec, Canada).
- 1995 Post-doctoral position at the Department of Chemistry of the University of Montréal (Quebec, Canada).
- 2000 Associate professor in Organic Chemistry at the University of Tuscia, Viterbo, Italy.
- 2000 Member of the Executive Committee of the Faculty of Mathematical, Physical and Chemical Sciences, University of Tuscia, Viterbo (Italy).
- 2001-2005 Association Agreement (class B1) at the Italian Institute for the Physics of Matter (INFN).
- 2001-2006 Vice-Director of the Agrobiology and Agrochemistry Department of the University of Tuscia, Viterbo (Italy).
- 2001-today Founder and Associate Member of the Scientific Committee of the Italian Cultural Association for Lignin Chemistry (ITALIC).
- 2004-2013 Member of the Academic Board of the PhD-course in Plant Biotechnology.
- 2005-today Association to Italian Institute for Astrophysics (INAF).
- 2006-today Founder and member of the Steering Committee of the Italian Society of Astrobiology (SIA).
- 2007-2012 Director of the Agrobiology and Agrochemistry Department (DABAC) of the University of Tuscia, Viterbo (Italy).
- 2008-today Lecturer in prebiotic synthesis for the European Course in Astrobiology (ABC-Network) of the European Space Agency (ESA).
- 2008 Member of the Board of the Italian Interuniversity Consortium of Chemistry for the Environment (INCA).
- 2011 Member of the Coordinating Committee for the bilateral Convention between the University of Tuscia and the Italian Agency for New Technologies, Energy and Economic Development (Enea).
- 2012-today Member of the Job-Placement Committee of the University of Tuscia, Viterbo (Italy).
- 2013-today Member of the Program Advisory Committee (PAC) for the Condensed Matter Physics of the Joint Institute of Nuclear Research (JINR) in Dubna (Moscow, Russia), with the function of Life Science Expert in the

- external evaluation panel for assignment of funding for Russian Research Programs.
- 2014-today Coordinator of the Quality Evaluation Nucleus (NdV) of the University of Tuscia (Viterbo, Italy).
- 2014-2015 Member of the Panel of Experts of the European Scientific Foundation (ESF) AstroMap Road Map for Prebiotic Chemistry.
- 2015 Member of the Expert Group in Astrobiology for the Italian Space Agency (ASI).
- 2016 Full professor in Organic Chemistry SSD CHIM/O6, Area 03/C1-Chemical Sciences, University of Tuscia (Viterbo, Italy).
- 2017-2021 CEO of the University of Tuscia, Viterbo, Italy (D.R. 282/17 del 31.03.2017).
- 2018-today Member of the RUS team (Rete Universitaria per lo Sviluppo Sostenibile), University of Tuscia (Decreto Rettorale Prot. N. 1698, 30-01-2018).
- 2018-today Invited Member of "National Academy of Olive Oil and Olive".
- 2018-today President of the Italian Society of Astrobiology (SIA).
- 2018-today Responsible for the University of Tuscia of the Agreement with Società Mondo Convenienza Holding spa.
- 2018-today Responsible for the University of Tuscia of the Agreement with Istituto Dermatologico Italiano (IDI) spa.
- 2019-today President of the Italian Astrobiology Institute (IAI).

PROFESSIONAL SKILLS

- 2010 Member of the Expert Board of the Italian Ministry of University Research (MIUR) for the Evaluation of Research Projects of National Interest.
- 2012-today Member of the Expert Board for the Health and Medical Research Fund (HMRF) of the Food and Health Bureau, Hong Kong SAR Government.
- 2014-today Individual Consultant- Evaluator /International Scientific Peer Review of the CRDS for the Montenegro Ministry of Science of "Higher Education and research for innovation and competitiveness" (HERIC).
- 2014-today Member of the Expert Board for the Leverhulme Trust Research Project Grants" (Grant Application System), Row London, EC4A 3BG (England, <http://www.leverhulme.ac.uk/index.cfm>).
- 2014-today Member of the Expert Board for the Royal Marsden NHS Foundation Trust", Brompton and Belmont, London (England, <http://www.royalmarsden.nhs.uk/about/pages/foundation-trust.aspx>).
- 2016-today *Section Editor* for Current Medicinal Chemistry, Bentham Science (topic: Organic synthesis and Biological Chemistry).
- 2016 Award "Premio Galilei" as author of the book "From the Big Bang to the Mother Cell" Editore il Mulino (Bologna), Farsi un'idea (N. 246, March 2016).
- 2017-today Editor for The Scientific Pages of Pharmacology and Pharmaceutical Science (<http://thescientificpages.org/page/biological-science/ebj.php?jid=pharmacology-and-pharmaceutical-science>).

- 2018-today Section Editor for *Molecules* (Basel) MPDI (<https://www.mdpi.com/journal/molecules>).
- 2020 Member of the Expert Board for the Paris Region Fellowship Programme (ParisRegionFP), EU co-funded Marie Skłodowska Curie Action (MSCA) in the frame of European Commissions H2020 programme (<https://www.iledefrance.fr/sesame-equipements-et-plateformes-scientifiques-et-technologiques>).
- 2020 Review Editor for the *Journal of Frontiers in Astronomy and Space Science*.
- 2020 Special Issue Editor "From Molecules to Origin of Life: The Astrobiology Network" *Molecules* (Mdpi; ISSN 1420-3049) ([https://www.mdpi.com/journal/molecules/special issues/Prebiotic Chem](https://www.mdpi.com/journal/molecules/special%20issues/Prebiotic%20Chem)).
- 2020 Editorial Board Member (EBMs) of the Bioorganic Chemistry Section of *Molecules* (Mdpi; ISSN 1420-3049).

EDITORIAL SKILLS

The scientific activity of Raffaele Saladino in the field of organic chemistry is evidenced by contributions to the most influential scientific journals in chemistry (Proc. Natl. Acad. Sci. USA, Chem. Soc. Rev., J. Am. Chem. Soc., J. Org. Chem., Chem-Eur. J. etc). Raffaele Saladino published 199 publications in international journals, and during the last 10 years has given 40 lectures at Italian and foreign institutions (with a total of 60 during his whole career). His publications have received over than 4962 citations (Scopus), h-index of 39 (Scopus), 149 papers published since 2000 and 88 since 2010. Both the number of citations and the h-index has been hugely increasing in the last years.

- Publications
1. M. Botta,* R. Saladino, A. Gambacorta, R. Nicoletti* "Researches on antiviral agents.2. Enantiospecific synthesis of 1,3-dimethyl-6-oxiranylpyrimidin-2,4-dione with anti-ASFV activity" *Tetrahedron Asymmetry*, (1990) 441-444, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.1
 2. M. Botta,* R. Saladino, A. Gambacorta, R. Nicoletti* "An unusual condensation of pyrimidinones: synthesis of bipyrimidinones and bipyrimidinylmethane" *Heterocycles*, (1991) 32, 1537-1545, Motoakasaka, Minato-Ku Tokyo, Giappone. ISI Chemistry, Organic Q3; IF 2013 0.908.
 3. M. Botta,* R. Saladino, V. Summa, R. Nicoletti* "A useful methodology for the regioselective deprotection of 1,3-dibenzyluracils" *Synthetic Communications*, (1991) 21, 2181-2187, New York, U.S.A. ISI Chemistry, Organic Q3; IF 2013 0.984.
 4. M. Botta,* G. Fabrizi, D. Lamba, R. Saladino "Structure of (+)-(S)-1,3-dimethyl-6-oxiranylpyrimidin-2,4-dione showing anti-ASFV activity" *Acta Cryst.* (1992) C48, 81-83, Copenhagen, Olanda. ISI Crystallography Q4; IF 2013 0.535.
 5. M. Botta,* C. Crucianelli, R. Saladino, R. Nicoletti* "Studies on the synthesis of C-2 substituted cephalosporin sulfones: the unexpected reactivity of the C-2 carbon" *Heterocycles*, (1992) 34, 1375-1384, Motoakasaka, Minato-Ku Tokyo, Giappone. ISI Chemistry, Organic Q3; IF 2013 0.908.
 6. M. Botta,* R. Saladino, R. Nicoletti* "One step synthesis of 5-bromo-2-chloro-6-hydroxy-4-[N-(2,3-

- dibromopropyl)-N-alkylamino]pyrimidines, useful intermediates for the preparation of pteridine derivatives and related analogues" *Heterocycles*, (1992) 34, 729-737, Motoakasaka, Minato-Ku Tokyo, Giappone . ISI Chemistry, Organic Q3; IF 2013 0.908.
7. R. Saladino,* P. Lupattelli, E. Mincione "Oxidation of uracil derivatives and pyrimidine nucleosides by dimethyldioxirane: a new and mild synthesis of 5,6-oxiranyl-5,6-dihydro and 5,6-dihydroxy-5,6-dihydro-derivatives" *Tetrahedron Letters* (1993) 34, 6313-6316, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.391.
 8. R. Saladino,* C. Crestini, R. Nicoletti* "Ozonation of substituted 2-thiouracils and pyrimidine-2-thione" *Tetrahedron Letters*, (1993) 34,1631-1634, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.391.
 9. R. Saladino,* C. Crestini, R. Bernini, E. Mincione* "Dimethyldioxirane oxidations: a new and efficient desulfurization of thiopyrimidine and thiopurine nucleosides" *Tetrahedron Letters*, (1993) 34, 7785-7788, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.391.
 10. M. Botta,* R. Saladino, D. Lamba, R. Nicoletti* "Researches on antiviral agents. 3. Synthesis and transformations of racemic and chiral 6-oxiranyl pyrimidinones" *Tetrahedron*, (1993) 49, 6053-6070, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 11. R. Saladino,* C. Crestini, E. Mincione, R. Nicoletti "Oxidation of substituted 2-thiouracils and pyrimidine-2-thione with ozone and 3,3-dimethyl-1,2-dioxirane" *Tetrahedron*, (1994) 50, 3259-3272, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 12. R. Saladino, C. Crestini,* R. Nicoletti* "1H-indazoles as synthetic auxiliaries for the synthesis of secondary aromatic amines" *Heterocycles* (1994) 38, 567-573, Motoakasaka, Minato-Ku Tokyo, Giappone. ISI Chemistry, Organic Q3; IF 2013 0.908.
 13. M. Botta,* R. Saladino, G. Gentile, V. Summa, R. Nicoletti,* A. Verri, F. Focher, S. Spadari "Researches on antiviral agents. 4. Studies on the chemistry of 6-methyl-2-methoxy-4-O-acyloxy and 6-methyl-2,4-di-O-acyloxy pyrimidine derivatives as new acylation reagents and inhibitors of uracil DNA Glycosylases" *Tetrahedron* (1994) 50, 3603-3618, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 14. M. Botta,* R. Saladino, G.P. Noy, R. Nicoletti* "Synthesis of 4-(alkyl-N-[4-hydroxypropyl] aminopyrimidine and 4-(alkyl-N-[4-2',3'-dihydroxypropyl] aminopyrimidine derivatives. Structural analogs of 9-(2',3'-dihydroxypropyl)adenine [(S)-DHPA] as inhibitors of Human DNA methyltransferase" *Med. Chem. Res.* (1994) 4, 323-334, Boston, U.S.A. ISI Q1.
 15. M. Botta,* R. Saladino, M. Anzini, F. Corelli* "Simplified analogues of acyclonucleosides. Synthesis of 6-[N-alkyl-N-(4-hydroxybutyl)amino]pyrimidine derivatives" *Nucleosides & Nucleotides* (1994) 13, 1769-1777, New York, U.S.A. ISI Biochemistry & Molecular Biology Q4; IF 2013 0.894.
 16. C. Crestini,* R. Saladino "A new and mild synthesis of 2-oxindoles by one-pot Wolff-Kishner like reduction of isatin derivatives" *Synthetic Communication* (1994) 24, 2835-2841, New York, U.S.A. ISI Chemistry, Organic Q3; IF 2013 0.984.
 17. R. Saladino,* G. Frachey, C. Crestini, R. Bernini, E. Mincione "Oxidation of 2-mercaptobenzo heterazoles by dimethyldioxirane. A new method for the synthesis of C-2 substituted benzimidazole, benzoxazole and benzothiazole derivatives" *Heterocycles* (1994) 38, 2621-2630, Minato-Ku Tokyo, Giappone . ISI Chemistry, Organic Q3; IF 2013 0.908.
 18. R. Saladino,* C. Crestini, R. Bernini, G. Frachey, E. Mincione* "A new efficient synthesis of cytidine and adenosine derivatives by dimethyldioxirane oxidation of thiopyrimidine and thiopurine nucleosides" *J. Chem. Soc. Perkin Trans 1* (nome attuale: Organic & Biomolecular Chemistry) (1994) 3053-3054, Cambridge, Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.42.
 19. R. Saladino,* C. Crestini, F. Occhionero, R. Nicoletti* "Ozonation of thionucleosides. A new chemical transformation of 4-thiouracil and 6-thioguanine nucleosides to cytosine and adenosine counterparts" *Tetrahedron*, (1995) 51, 3607-3616, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 20. R. Saladino,* C. Crestini, R. Bernini, R. Ciafrino, E. Mincione "A new and efficient synthesis of 8-Hydroxypurine derivatives by dimethyldioxirane oxidation" *Tetrahedron Letters* (1995) 36, 2665-2668, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.391.
 21. R. Saladino,* C. Crestini, R. Bernini, E. Mincione, A. Bergamini, S. Marini, A. T. Palamara "Studies on the chemistry of pyrimidine derivatives with dimethyldioxirane: synthesis, cytotoxic effect and antiviral activity of new 5,6-oxiranyl-5,6-dihydro and 5-hydroxy-5,6-dihydro-6-substituted uracil derivatives and pyrimidine nucleosides" *Tetrahedron* (1995) 51, 7561-7578, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 22. R. Saladino,* R. Bernini, E. Mincione,* P. Tagliatesta, T. Boschi "Dimethyldioxirane-Mn(Cl16)TDMPPCl porphyrin as efficient and chemoselective epoxidizing reagent of uracil derivatives." *Tetrahedron Lett.* (1996) 37, 15, 2647-2650, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.391.
 23. R. Saladino,* E. Mincione, C. Crestini, M. Mezzetti "Transformations of thiopyrimidine and thiopurine nucleosides" *Tetrahedron* (1996) 52, 19, 6759-6780, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 24. R. Saladino,* C. Crestini, F. Occhionero, R. Nicoletti* "Ozonation of thioamide containing heterocycles. A new general and selective procedure for the synthesis of C-2 substituted heterazole derivatives" *Synth. Comm.* (1996) 26, 3241-3251, New York, U.S.A. ISI Chemistry, Organic Q3; IF 2013 0.984.

25. R. Saladino,* E. Mincione, C. Crestini, R. Negri, G. Costanzo, E. Di Mauro "Mechanism of degradation of purine nucleosides by formamide. Implications for chemical DNA sequencing procedures" *J. Am. Chem. Soc.* (1996) 118, 24 Washington DC, U.S.A. ISI Chemistry, Multidisciplinary Q1; IF 2013 11.444.
26. M. Botta,* R. Saladino, G. delle Monache, G. Gentile, R. Nicoletti* "Researches on antiviral agents.5. Lithiation of 6-methyluracil as a new and efficient entry to C(6)-substituted uracils" *Heterocycles* (1996) 9 43, 8, 1687-1697, Minato-Ku Tokyo, Giappone . ISI Chemistry, Organic Q3; IF 2013 0.908.
27. R. Negri, G. Costanzo, R. Saladino, E. Di Mauro "One-step one-lane chemical DNA sequencing by N-methylformamide in the presence of metal ions." *BioTechniques* (1996) 21, 910-917, Natick, U.S.A. ISI Biochemical research Method Q2; IF 2013 2.754.
28. M. Botta,* C. Crucianelli, R. Saladino, C. Mozzetti, R. Nicoletti* "Studies on the reactivity of cephalosporins. 4. Ozonolysis of 2-cephem derivatives as new entry to highly functionalized 2-oxoazetidione and 2-oxoazetidione-4-sulphenic acid derivatives" *Tetrahedron* (1996) 52, 10205-10214, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
29. S. Hanessian,* R. Saladino, J.C. Nunez "On the binding site of Quinolone antibacterials. An attempt to probe the Shen model" *Bioorganic & Medicinal Chemistry Letters* (1996) 6, 2333-2338, Oxford Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.331.
30. R. Saladino*, L. Stasi, C. Crestini, R. Nicoletti, M. Botta* "Reactivity of lithium trimethylsilyldiazomethane and diazomethane toward the 5,6-double bond of uracil and uridine derivatives" *Tetrahedron* (1997) 53, 20, 7045-7056, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
31. M. Mezzetti, E. Mincione,* R. Saladino,* "Regioselective oxyfunctionalization of peptides by dimethyldioxirane: tertiary C-H bond oxygen atom insertion into leucine derivative and leucine containing dipeptides" *Chem. Communications* (1997) 1063-1064, Cambridge Gran Bretagna. Chemistry, Multidisciplinary Q1; IF 2013 6.718.
32. R. Saladino*, C. Crestini, E. Mincione, G. Costanzo, E. Di Mauro, R. Negri* "Mechanism of degradation of 2'-deoxycytidine by formamide. Implications for chemical DNA sequencing procedures" *Bioorganic & Medicinal Chemistry*, (1997) 5, 2041-2048. Oxford Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.91.
33. M. Botta,* F. Occhionero, R. Saladino, C. Crestini, R. Nicoletti,* "An unexpected and efficient direct nucleophilic C-4 hydroxy substitution on 2-methoxy- and 2-methylthio-4(3H)-pyrimidinones bearing a diethylamino moiety on the C-6 side chain" *Tetrahedron Lett.*, (1997) 38(47), 8249-8252. Oxford UK. ISI Chemistry, Organic Q2; IF 2013 2.391.
34. E. Di Mauro*, R. Saladino, P. Tagliatesta, V. de Sanctis, R. Negri, "Manganese water-soluble porphyrin senses DNA conformation" *J. Mol. Biol.*, (1998) 282, 43-57, London UK. ISI Biochemistry & Molecular biology Q2; IF 2013 3.959.
35. R. Saladino,* M. C. Danti, E. Mincione, C. Crestini, A. T. Palamara, P. Savini, S. Marini, M. Botta,* "A potent and selective inhibition of parainfluenza 1 (sendai) virus by new 6-oxiranyl-, 6-methylloxiranyluracils, and 4(3H)-pyrimidinone derivatives" *Bioorganic & Medicinal Chemistry Letters*, (1998) 8, 1833-1838, Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.331.
36. R. Saladino,* L. Stasi, G. Volpe, R. Nicoletti, M. Botta "Reactivity of dimethylphenyl silyllithium toward 5-, and 6-substituted uracil derivatives" *Heterocycles*, (1998) 48, 2601-2610, Minato-Ku Tokyo, Giappone. ISI Chemistry, Organic Q3; IF 2013 0.908.
37. P. Tagliatesta*, T. Boschi, E. Mincione, R. Bernini, C. Crestini, D. Monti, R. Saladino* "Manganese tetraphenylporphyrins catalyzed stereoselective epoxidation of nucleosides" *J. Organic Chemistry*, (1999) 64, 5361-5365, Washington USA. ISI Chemistry, Organic Q1; IF 2013 4.638.
38. S. Hanessian,* R. Saladino, R. Margarita, M. Simard "Crystal engineering with supramolecular chirons based on enantiodifferentiating self-assembly between amines and alcohols (Supraminols)" *Chemistry: A European J.*, (1999) 5, 2169-2183. ISI Chemistry Multidisciplinary Q1; IF 2013 5.696.
39. R. Saladino,* P. Carlucci, C. Crestini, P. Tagliatesta,* D. Monti, T. Boschi "Manganese tetraphenylporphyrins catalyzed selective oxidation of purine derivatives" *Nucleosides & Nucleotides* (1999) 18, 1123-1124, New York, U.S.A. ISI Biochemistry & Molecular Biology Q4; IF 2013 0.894.
40. M. Botta*, R. Saladino,* L. Stasi, U. Ciambecchini, R. Nicoletti "Recent advances in the synthesis of 6-vinyl-N,N-dialkylcytosine derivatives" *Nucleosides & Nucleotides*, (1999) 18, 555-556, New York, U.S.A. ISI Biochemistry & Molecular Biology Q4; IF 2013 0.894.
41. C. Crestini,* R. Saladino, P. Tagliatesta, T. Boschi "Biomimetic degradation of lignin model compounds by synthetic anionic and cationic water soluble manganese and iron porphyrins" *Bioorganic & Medicinal Chemistry*, (1999) 7, 1897-1905, Oxford Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.91.
- 42M. Botta,* F. Occhionero, R. Nicoletti, P. Mastromarino, C. Conti, M. Magrini, R. Saladino* "Synthesis and biological evaluation of 2-methoxy- and 2-methylthio-6-[(2'-alkylamino)ethyl]-4(3H)-pyrimidinones with anti-rubella virus activity" *Bioorganic & Medicinal Chemistry*, (1999) 7, 1925-1931, Oxford Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.91.
43. R. Saladino,* L. Stasi, R. Nicoletti, C. Crestini, M. Botta* "Umpolung of reactivity of lithium trimethylsilyldiazomethane at the C-5 position of 6-substituted uracil derivatives" *Eur. J. Org. Chem.*, (1999) 11, 2751-2755, Weinheim Germania. ISI Chemistry Q1; IF 2013 3.154.
44. R. Saladino,* M. Mezzetti, E. Mincione, I. Torrini, M. Paglialunga, G. Mastropietro "A new and efficient synthesis of unnatural amino acids and peptides by selective 3, 3-dimethyldioxirane side-chain oxidation" *J.*

- Organic Chemistry*, (1999) 64, 8468-8474, Washington USA. ISI Chemistry, Organic Q1; IF 2013 4.638.
45. R. Saladino, M. Mezzetti, E. Mincione, A. T. Palamara, P. Savini, S. Marini "Synthesis, cytotoxic effect and antiviral activity of 5-bromo-N⁴-substituted-1-(D-arabinofuranosyl)cytosine and 5-bromo-O⁴-methyl-1-(D-arabinofuranosyl)pyrimidin-2(1H)-one derivatives" *Nucleosides & Nucleotides*, (1999) 18(11 & 12), 2499-2510, New York, U.S.A. ISI Biochemistry & Molecular Biology Q4; IF 2013 0.894.
 46. C. Crestini, A. D'Annibale, G. Giovannozzi Sermanni, R. Saladino "The reactivity of phenolic and non-phenolic residual kraft lignin model compounds with Mn(II)-peroxidase from *lentinula edodes*" *Bioorganic & Medicinal Chemistry*, (2000) 8, 433-438, Oxford, Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.91.
 47. R. Saladino*, V. Neri, E. Mincione, S. Marini, M. Coletta, C. Fiorucci, P. Filippone "A new and efficient synthesis of ortho- and para-benzoquinones of cardanol derivatives by the catalytic system MeReO₃-H₂O₂" *J. Chem. Soc., Perkin Trans. 1* (nome attuale: *Organic & Biomolecular Chemistry*), (2000) 581-586, Cambridge Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.42.
 48. R. Saladino, P. Carlucci, M.C. Danti, C. Crestini, E. Mincione "Selective oxidation of uracil and adenine derivatives by the catalytic system MeReO₃/H₂O₂ and MeReO₃/Urea hydrogen peroxide" *Tetrahedron* (2000) 5651, 10031-10037 Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.817.
 49. R. Saladino, C. Crestini, G. Costanzo, R. Negri, E. Di Mauro "A Possible prebiotic synthesis of purine, cytosine, and 4(3H)-pyrimidinone from formamide: implications for the origin of life" *Bioorganic & Medicinal Chemistry*, (2001) 9/5, 1249-1253, Oxford, Gran Bretagna. ISI Chemistry, Organic Q1; IF 2013 2.91.
 50. R. Bernini, E. Mincione, M. Cortese, G. Aliotta, R. Saladino* "A new and efficient Baeyer-Villiger rearrangement of flavanone derivatives by the methyltrioxorhenium/H₂O₂ catalytic system" *Tetrahedron Letters* (2001), 42/32, 5401-5404, Oxford Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 2.391.
 51. O. Attanasi, P. Filippone, C. Fiorucci, R. Amorati, G.F. Peduli, L. Valgimigli, R. Saladino "Absolute rate constants for the reaction of peroxy radicals with cardanol derivatives" *J. Chem. Soc., Perkin Trans 2* (nome attuale: *Organic & Biomolecular Chemistry*), (2001) 2142-2146, Cambridge Gran Bretagna. ISI Chemistry, Organic Q2; IF 2013 1.896.
 52. R. Saladino*, A.R. Pelliccia, V. Neri, R. Caminiti, C. Sadun "Preparation and structural characterization of polymer-supported methylrhenium trioxide systems as efficient and selective catalysts for the epoxidation of olefins" *J. Org. Chem.*, (2002) 67, 1323-1332. ISI chemistry, Organic Q1; IF 2013 4.638.
 53. P. Tagliatesta*, C. Crestini, R. Saladino*, V. Neri, P. Filippone, C. Fiorucci, O.A. Attanasi, "Manganese and iron tetraphenylporphyrin-catalyzed oxidation of a cardanol derivative (hydrogenated tert-butylcardanol) J. Porphyrin Phtalocyanines, (2002) 6, 12-16. ISI Chemistry, Multidisciplinary Q3; IF 2013 1.364.
 54. R. Saladino*, U. Ciambecchini, G. Maga, P. Mastromarino, C. Conti, M. Botta "A New and efficient synthesis of substituted 6-[(2'-dialkylamino)ethyl]pyrimidine and 4-N,N-dialkyl-6-vinyl-cytosine derivatives and evaluation of their anti-rubella activity" *Bioorganic & Medicinal Chemistry*, (2002) 10, 2143-2153. ISI Chemistry, Organic Q1; IF 2013 2.91.
 55. R. Saladino*, C. Crestini, A.T. Palamara, M.C. Danti, F. Manetti, F. Corelli, E. Garaci, M. Botta "Synthesis, biological evaluation, and pharmacophore generation of uracil, 4(3H)-pyrimidinone, and uridine derivatives as potent and selective inhibitors of parainfluenza 1 (Sendai) virus" *J. Med. Chem.* (2001) 44(26), 4554-4562. ISI Chemistry, Medicinal Q1; IF 2013 5.48.
 56. R. Saladino*, V. Neri, E. Mincione, P. Filippone "Selective oxidation of phenol and anisole derivatives to quinones with hydrogen peroxide and polymer-supported methylrhenium trioxide systems" *Tetrahedron* (2002) 58, 8493-8500. ISI Chemistry, Organic Q2; IF 2013 2.817.
 57. R. Saladino*, U. Ciambecchini, L. Nencioni, A. T. Palamara "Recent Advances in the Chemistry of Parainfluenza-1 (Sendai) Virus Inhibitors", *Medicinal Research Review* (2003) 23, 427-455. ISI Q1.
 58. R. Saladino*, E. Mincione, O.A. Attanasi, P. Filippone "Microencapsulated methylrhenium trioxide MTO/H₂O₂ systems for the oxidation of cardanol derivatives" *Pure Appl. Chem.* (2003) 75, 261-268. ISI Chemistry, Multidisciplinary Q2; IF 2013 3.112.
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Patents

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Book chapters

1. R. Saladino, M. Botta, F. Occhionero, R. Nicoletti "Recent advances in the chemistry of 6-substituted pyrimidines and uracil derivatives" *Trends in Organic Chemistry*, **1995**, 5, 57-81, Trivandrum, India.
2. R. Saladino "Recent advances in the oxidative functionalization of purine and pyrimidine nucleic acids components" *Targets in Heterocyclic Systems, Chemistry and Properties*" Ed. O.A. Attanasi, D. Spinelli, Vol. 3 **2000**, 4.
3. C. Crestini, P. Tagliatesta, R. Saladino "A Biomimetic approach to lignin degradation: metalloporphyrins catalyzed oxidation of lignin and lignin model compounds" in *Oxidative delignification chemistry: fundamentals and catalysis*, **2001**, American Chemical Society (ACS) symposium series N°785, ISBN 0-8412-3738-7.
4. Saladino, S. Hanessian "Molecular recognition and self-assembly between amines and alcohols (Supraminols)" in *Crystal Design: Structure and Function*, edited by G.R. Desiraju, John Wiley & Sons Ltd, N.Y., **2003**.
5. Brucato, JR; Vazquez, L; Rotundi, A ; Cataldo, F; Palomba, E; Saladino, R; Di Mauro, E; Baratta, G; Barbier, B; Battaglia, R, Saladino R "PROCEEDINGS OF THE III EUROPEAN WORKSHOP ON EXO-ASTROBIOLOGY: MARS: THE SEARCH FOR LIFE" Book Series: ESA SPECIAL PUBLICATIONS, Volume: 545 Pages: 101-104 Published: **2004**; Edited by:Harris, R A; Ouwehand, L.
6. Saladino, R; Crestini, C; Ciciello, F; Costanzo, G; Negri, R; Di Mauro, E. "Formamide-based syntheses and degradations of nucleic acids precursors in prebiotic conditions" *PROCEEDINGS OF THE III EUROPEAN WORKSHOP ON EXO-ASTROBIOLOGY: MARS: THE SEARCH FOR LIFE*. Book Series: ESA SPECIAL PUBLICATIONS, Volume: 545 Pages: 287-288. Published: **2004** Edited by:Harris, RA; Ouwehand, L.
7. Saladino Raffaele, Crestini Claudia, Ciciello Fabiana, Giovanna Costanzo, Negri Rodolfo, Di Mauro Ernesto "A

- novel synthesis of biomolecular precursors" *Astrophysics and Space Science Library* **2004**, 305 (Astrobiology), 393-413.
8. J.R. Brucato, L. Vazquez, A. Rotondi, F. Cataldo, E. Palomba, R. Saladino, E. Di Mauro, G. Baratta, B. Barbier, R. Battaglia, L. Col angeli, G. Costanzo, C. Crestini, V. Corte, E. Mazzotta, F. Esposito, G. Ferrini, J.E. Gomez, M. Isola, Y. Keheyam, G. Leto, J. F. Martinez, V. Mennella, R. Negri, M.E. Palumbo, P. Palumbo, G. Strazzulla, P. Falciani, G. Adami, G.P. Guizzo, S. Campitoti *European Space Agency (Special Publication) ESA SP*, **2004**, 545, 101-104 ISSN:0379-6566.
 9. R. Saladino, T. Pagliaccia, C. Crestini, G. Botta, D. Argyropoulos "Methyltrioxorhenium catalysed oxidation of levulinic acid under homogeneous and heterogeneous conditions" in *American Chemical Society ACS Volume "Materials, Chemicals and Energy from Forest Biomass"*, Ed. Dimitris S. Argyropoulos, Washington DC 20036 USA **2006**.
 10. M. Crucianelli, R. Saladino, F. De Angelis "Toward a novel approach for oxidative desulfurization (ODS) of diesel fuel: An efficient oxidation of thiophene derivatives with homogeneous and heterogeneous MTO/H₂O₂ systems" *ACS National Meeting Book of Abstracts 2009 238th National Meeting and Exposition of the American Chemical Society, ACS 2009*; Washington, DC; United States; 16 August 2009 through 20 August 2009; Code 82479 American Chemical Society ISSN:0065-7727.
 11. R. Saladino, G. Botta, M. Crucianelli "Advances in Nanostructured Transition Metal Catalysis Applied to Oxidative Desulfurization" in *Applying Nanotechnology to the Desulfurization Process in Petroleum Engineering*, Tawfik A. Saleh (Ed.), IGI Global, **2015** (<http://www.igi-global.com/chapter/advances-in-nanotechnology-transition-metal-catalysts-in-oxidative-desulfurization-ods-processes/139161>).
 12. R. Saladino "La chimie avant la vie" in *Formation des systems stellaires and planétaires/Conditions d'apparition de la vie* EdpSciences Ed., 2015 Paris (France).
 13. R. Saladino, E. Di Mauro "Dal Big Bang alla Cellula Madre-L'origine della vita", Editore il Mulino (Bologna), collana Farsi un'idea, N. 246, Marzo 2016. ISBN 978-88-15-26378-0.
 14. R. Saladino, B. M. Bizzarri, E. Di Mauro "THE HANDY FORMAMIDE MODEL SYSTEM FOR PREBIOTIC CHEMISTRY" in *Prebiotic Chemistry and Life's Origin*, Ed. Michele Fiore and Emiliano Altamura, Royal Society of Chemistry, 2021.
 15. R. Saladino, B. M. Bizzarri, E. Di Mauro "The role of photochemistry in the prebiotic model of formamide" in *Prebiotic PhotoChemistry*, Ed. Franz Saja and Giuseppe Cassone, Royal Society of Chemistry, 2021.

Invited speaker

1. 29-30 May **2008**-1st Italian Astrobiology Society Workshop, Centro Convegni S. Agostino-Cortona Italy. R. Saladino "Advances in prebiotic chemistry: The System Chemistry".
2. 20-25 July **2008**-ADHOC 2008 10th International Symposium on Activation of Dioxygen and Homogeneous catalytic Oxidations-San Servolo-Venice Italy R. Saladino "Production of maleic anhydride from cellulose wastes by activation of hydrogen peroxide with heterogeneous catalysts".
3. August 24-29th **2008**-15th International Conference on the Origin of Life, Florence Italy. R. Saladino "Synthesis of nucleic acid components".
4. September 3-5th **2008**- Origin of Life and Life in Space. Meeting of European Space Agency (ESA), Florence Italy. R. Saladino "Origin of informational molecules".
5. October 7-10th **2008**- ChembioGenesis 2008 Maratea, Italy. R. Saladino "Advances in the prebiotic chemistry of nucleic acids".
6. May 18-20th **2009**- MARCO POLO-International Symposium Marco Polo and other small body sample return missions-Université Paris Diderot-Paris 7, Paris France "The role of non terrestrial material on the prebiotic synthesis of biomolecules".
7. June 23-25th **2010**-Center for Chemical Evolution Georgia Institute of technology, Atlanta (USA)-R. Saladino "Recent advances in the prebiotic chemistry of formamide/mineral systems".
8. 18-20 April **2011**-Observatoire de Paris-CIAS (France). Astrobiology in the Early Solar System. R. Saladino "Photochemical synthesis of citric acid cycle intermediates based on titanium dioxide".
9. July 3-8th **2011**- Chair of the ISSOL and Bioastronomy Joint International Conference, Le Corum, Montpellier France.
10. 10-13 December **2011**-Joint Institute for Nuclear Research-Dubna (Moscow) Russia-Round Table Italia-Russia (Astrobiology: New Ideas and Research Trends) R. Saladino "Prebiotic Chemistry of Formamide".
11. 1-2 July **2012**-European Week of Astronomy and Space Science EWASS-Rome (Italy) R. Saladino "Role of non-terrestrial minerals in the prebiotic synthesis of biomolecules".
12. 13-14th March **2013**, IBMP Moscow (Russian) Life sciences in space for Earth, Search new directions for cooperation-R. Saladino "Prebiotic Chemistry in Meteorites".
13. 23th April **2013**, 1st Symposium on Therapeutic potential of redox active nanoparticles and natural compounds-University of Tor Vergata, Rome, Italy – R. Saladino "Application of nanotechnology catalysis in the synthesis of redox active natural compounds".
14. 16-17th January **2013**, International Symposium on Astrobiological and Cosmochemical Implications of MarcoPolo-R Sampling of a Primitive Asteroids-Barcelona (Spain) R. Saladino "Prebiotic chemistry in carbonaceous chondrites".
15. 14-15th January **2014**, NIS Conference Biomolecules on surfaces: from abiotic polymerization to biosensors-

- Turin (Italy) R. Saladino "The role of minerals in formamide prebiotic chemistry".
16. 22-23th June, **2015**-Dubna (Russia). 2nd meeting of the PAC for Condensed Matter Physics. Raffaele Saladino, Eleonora Carota, Giorgia Botta, Michail Kapralov, Gennady N. Timoshenko, Alexei Rozanov, Eugene Krasavin, *Ernesto Di Mauro "First evidence on the role of 11B-boron irradiation of meteorites and formamide in the origin of biomolecules".
 17. 28-29th January, **2016**-Dubna (Russia). 3rd meeting of the PAC for Condensed Matter Physics. Raffaele Saladino, Eleonora Carota, Giorgia Botta, Michail Kapralov, Gennady N. Timoshenko, Alexei Rozanov, Eugene Krasavin, *Ernesto Di Mauro "Role of irradiation of meteorites and formamide in the origin of biomolecules. A general overview".
 18. 10-11th March, **2016**-Firenze, 1st Italian Workshop on Astrochemistry-Astronomical Complex Organic Molecules in different Environments- R. Saladino "Chemical gardens: the first evidence of a spontaneous catalytic compartmentalization process in prebiotic chemistry".
 19. 21-26th, **2016**-Bormio (Italy) XIII Congresso Nazionale di Scienze Planetarie- R. Saladino "Role of proton and 11B-irradiation of meteorites and formamide in the origin of biomolecules".
 20. 1 marzo, **2016** - Circular Economy: una nuova strada per lo sviluppo. Porta Futuro Roma. Green chemistry, Bio e nano tecnologie per l'ambiente.
 21. 18-20 Settembre, **2016**-Scuola di Astrofisica F. Lucchin (Bertinoro, Forlì-Cesena) "Prebiotic Chemistry".
 22. June 28th-30th **2017**, Aboca (San Sepolcro, Arezzo) 2nd MS-NatMedDay "A combined GC-MS/31P NMR approach for the analysis of polyphenols in natural extracts: the case of laccase mediated enhancement of the antioxidant activity of propolis and poplar bud exudates".
 23. June 7th **2018**-ESRIN Frascati (Roma). ESA/ASI Workshop Space Rider, the European Return Ticket to Space. The Meteorite Astro-Life project.
 24. May 10-12th **2018**-University of Genova (Italy) Festival del Mare "Il ruolo dell'acqua nell'origine della vita".
 25. July 10th **2018**-Casa Dell'Energia e dell'Ambiente (Milano)-Global Compact Network Italia "Il contributo dell'Università della Toscana alla Economia Circolare".
 26. October 24th-25th **2018**, ICTP-Trieste ESOF2020.
 27. L. Botta, R. Saladino, B. M. Bizzarri, J. Šponer, J. E. Šponer, T. Georgelin, M. Jaber, B. Rigaud, M. Kapralov, G. N. Timoshenko, A. Rozanov, E. Krasavin, A. M. Timperio, E. Di Mauro "Prebiotic origin of nucleosides in a formamide context", Wilhelm und Else Heraeus-Seminar on Prebiotic Molecules in Space and Origins of Life on Earth, Bad Honnef, (Germany) March 19th-23rd **2018**.
 28. October 29th-31st **2018**, R. Saladino, B. M. Bizzarri, L. Botta, "Chemical Gardens and Mineral Vesicles catalyze comprehensive prebiotic chemistry". 6th Workshop of the Italian Astrobiology Society, Naples (Italy).
 29. L. Botta, B. M. Bizzarri, E. Di Mauro, R. Saladino "Origin of building blocks of life: the formamide pathway", First General Assembly of the European Astrobiology Institute, Liblice, Repubblica Ceca, 28-30 Maggio **2019**.
 30. 23th May **2019**, Giornata Nazionale della Bioeconomia, University of Tuscia (Viterbo, Italy), "La valorizzazione della ligninella filiera della bioraffineria: Cosmeceutica e Bioplastiche".
 31. July 1-5th **2019** French-Mexican Advanced School on the Origins and Evolution of Life, Sorbonne University (Paris, France), "Meteoritic Prebiotic Chemistry".

Oral Communications

1. 16-20 Settembre **1991**- X Convegno Nazionale della Divisione di Chimica Farmaceutica della S. C. I., Siena Italy. R. Saladino, M. Botta, D. Lamba, R. Nicoletti "Riduzione stereoselettiva di chetosolfossidi nella sintesi di antivirali: uno studio di modeling".
2. 18-22 Settembre **1994**- XXII National Scientific Meeting of Organic Chemistry, Viareggio Italy. "E. Mincione, R. Saladino, C. Crestini, R. Bernini "Chimica degli acidi nucleici: nuove metodiche di sintesi e modificazione degli acidi nucleici e dei loro componenti via ossifunzionalizzazione chemo e regio selettive".
3. 25-27 Gennaio **1995**- III National Meeting of Biorganic Chemistry, Bologna Italy. R. Saladino, E. Mincione, C. Crestini, E. di Mauro, R. Negri, G. Costanzo "Studio sul meccanismo di degradazione con la formamide dei nucleosidi purinici e pirimidinici".
4. 16-18 Aprile **1996**- SIA Conference London, England. E. di Mauro, G. Costanzo, R. Negri, C. Crestini, R. Saladino, E. Mincione "One lane chemical DNA sequencing by amides".
5. 1-5 Settembre **1999**- XXVI Convegno nazionale della divisione di chimica organica, Taormina (CT) Italia. R. Saladino, V. Neri, P. Carlucci, M. V. Orsale, E. Mincione "Ossidazione selettiva di molecole naturali a struttura aromatica tramite nuovi catalizzatori del renio environmentally benign basati sulla eterogeneizzazione del metilreniotriossido (MeReO₃)".
6. 4-9 Giugno **2000**- XX Congresso Nazionale della Società Chimica Italiana, Rimini, Italia. R. Bernini, P. Bovicelli, E. Mincione, R. Saladino "Nuove metodologie ossidative per la funzionalizzazione e la valorizzazione di molecole naturali fenoliche presenti nei reflui agroindustriali".
7. 25-28 Febbraio **2001**- 4^o Convegno del Consorzio INCA, Santa Margherita Ligure, Genova, Italia. E. Mincione, R. Saladino "Catalisi Ossidativa Ambientale per la Valorizzazione di Reflui Agroindustriali".
8. 9-11 Aprile **2001**- Eso/AstroBiologia nel Nuovo Millennio ASI (Agenzia Spaziale Italiana), S. Agata sue due

- Golfi (NA) Italia, R. Saladino "Una nuova sintesi prebiotica delle purine e pirimidine dalla formamide: implicazioni per l'origine della vita"
9. 16-20 Settembre **2002**- XXVIII Convegno nazionale della divisione di chimica organica, Roma, Italia. R. Saladino, E. Mincione, V. Neri, F. Romani "Metodiche sintetiche innovative per la sintesi di chinoni biologicamente attivi con impiego di nuovi catalizzatori eterogenei del renio".
 10. 3-5 Giugno **2002**-Associazione Genetica Italiana, Scuola di Cortona, Cortona, Italia. R. Saladino "Sintesi prebiotica dei nucleotidi: fatti, modello congetture".
 11. 15-17 Luglio **2002**-XXI Convegno TUMA, Urbino, Italia. R. Saladino, O.A. Attanasi, P. Filippone, E. Mincione, V. Neri "Ruolo di nuovi catalizzatori eterogenei del renio nella chimica dei derivati cardanolici".
 12. 1-5 Agosto **2002**- XXIII International Symposium on the chemistry of Natural Substances, Florence, Italy. R. Saladino, R. Bernini, E. Mincione "Recent advances in the application of methyl rhenium trioxide based catalyst systems for the selective oxidation of natural products".
 13. 14 Febbraio **2003**-Giornata sulle sostanze organiche naturali, Roma, Italia. R. Saladino "Dalla formamide agli acidi nucleici: implicazioni per l'origine della vita".
 14. 20-21 Febbraio **2003**- 2° Italian Meeting on Lignin Chemistry (ITALIC 2), Como, Italy. R. Saladino, C. Crestini "MTO , a new catalyst for the oxidation of lignin and lignin model compounds".
 15. 6 Giugno **2003**-Wood Chemistry Day, North Carolina State University, Raleigh, North Carolina, USA. R. Saladino, C. Crestini "Methyltrioxorhenium: A New Catalyst for the Activation of Hydrogen peroxide to the Oxidation of Lignin and Lignin Model Compounds".
 16. June 9-12, **2003**-12th International Symposium on wood and Pulping Chemistry, pp 105-108 Madison, USA. Claudia Crestini Raffaele Saladino "Methyltrioxorhenium: a new catalyst for the activation of hydrogen peroxide to the oxidation of lignin and lignin model compounds."
 17. 22-27 Giugno **2003**-XXI Congresso Nazionale della Società Chimica Italiana, Torino, Italy. R. Saladino, V. Neri, C. Fiani, C. Crestini "Selective oxidation of lignans, neolignans, and lignins by the catalytic systems Methyl Rhenium Trioxides (MTO)/H₂O₂".
 18. 12-14 Dicembre **2003**- COST D27 3rd Management Committee Meeting, Collegium Budapest, Hungary. R. Saladino "Novel catalysed pre-biotic synthesis of purine and pyrimidine bases and acyclonucleosides".
 19. 17 Maggio **2004**-Polo Scientifico Università degli studi di Firenze-Dipartimento di Chimica Organica Ugo Schiff Raffaele Saladino "Il ruolo della catalisi ossidativa nella sintesi di lignani biologicamente attivi".
 20. 24 June **2004**-Twelfth FEChem Conference on Heterocycles in Bio-organic Chemistry, Siena, Italy. Raffaele Saladino "A novel synthesis of bioactive lignans by the methyltrioxorhenium/H₂O₂ system".
 21. 30 September **2004**-3rd Workshop of the COST Chemistry Action D27, Prebiotic Chemistry and early evolution. G. Costanzo, F. Ciriello, C. Crestini, R. Saladino, E. Di Mauro "Formamide syntheses and degradation of nucleic acids precursors in prebiotic conditions"
 22. 1-2 April **2005**- Origin of Life and primordial evolution- Convento di S. Agostino, Cortona (Firenze) R. Saladino "Synthesis of nucleic acid components in the presence of cosmic dust analogues"
 23. June 23-24 **2005**-ITALIC 3 Università dell'Aquila, Italia "Wood Derivatives and Agroindustrial Waste Valorisation" R. Saladino, T. Pagliaccia, C. Fiani, V. Neri, G. Botta, D.S. Argyropoulos "Cellulose Waste Valorisation by Novel Heterogeneous Methylrhenium Trioxide Catalysts"
 24. June 23-24 **2005**-ITALIC 3 Università dell'Aquila, Italia "Wood Derivatives and Agroindustrial Waste Valorisation" C. Sadun, R. Caminiti, P. Ballirano, R. Saladino "The use of energy dispersive X-ray diffraction for the study of samples with different lignin content"
 25. June 17 **2005**-Workshop XVI Convegno di Chimica Industriale "Cosa vuol dire catalisi in Italia:mercato, bisogni e prospettive" Verbania-Pallanza (MI)-R. Saladino "Nuove prospettive per l'impiego del renio in processi di trasformazione che richiedono l'attivazione del perossido di idrogeno"
 26. October 26th-28th **2005**-National Workshop on Astrobiology, Capri(NA) Italy. R. Saladino, C. Crestini, F. Ciriello, G. Costanzo, E. Di Mauro "Origin of informational polymers: differenzial stability of 3'- and 5'-phosphoetsr bonds in monomers and oligomers, both ribo and deoxyribo"
 27. October 26th-28th **2005**-National Workshop on Astrobiology, Capri(NA) Italy. R. Saladino, C. Crestini, F. Ciriello, G. Costanzo, E. Di Mauro "Origin of informational polymers: synthesis of nucleic acid precursors from formamide under prebiotic conditions"
 28. July 18th-22th, **2005**-ISHHC-XII International Symposium on Reactions Between Homogeneous and Heterogeneous catalysis, Florence Italy. M. Crucianelli, F. De Angelis, V. Neri, R. Saladino "Highly efficient and selective MTO-based oxidative catalytic system: hydrocarbon derivatives C-H insertion reactions and α-aminoacids side-chain oxidations".
 29. December 12th-13th, **2005**-International meeting of ASI. J. R. Brucato, L. Colangeli, E. Di Mauro, E. Gallori, P. Palumbo, R. Saladino, G. Strazzulla "Prebiotic Chemistry in Europa".
 30. May 11th-12th, **2006**-Working Group D27 Meeting, Paris (France). R. Saladino and E. DiMauro "The role of phosphates on the prebiotic synthesis of nucleic acids from formamide."
 31. September 10th-15th, **2006**-XXII Congresso Nazionale della Società Chimica Italiana SCI 2006, Florence Italy. C. Crestini, R. Saladino "Recenti applicazioni di ossidi del renio nella modificazione ossidativa di polimeri naturali".

32. October 16th-18th, **2006**-6th European Workshop on Astrobiology Lyon, France. J.R. Brucato, G. Strazzulla, G.A. Baratta, R. Saladino, E. DiMauro "Role of cosmic dust analogues in prebiotic chemistry".
33. Novembre 1-4th, **2006**- The Southeastern Regional Meeting of the American Chemical Society SERMACS 2006, Augusta USA. R. Saladino "Origins of RNA: prebiotic syntheses from formamide".
34. March 5th, **2007**-Giornata sulle Biotecnologie bianche e biorisorse vegetali: prospettive di ricerca e applicazioni, R. Raladino "Utilizzazione e funzionalizzazione emicellulose", CNR-Aula Marconi, p.le Aldo Moro, 7, Roma, Italy.
35. March 29-31th, **2007**- II^o Convegno Nazionale della ISSBB (Italian Society for Space Biomedicine and Biotechnology)-R. Saladino, G. Costanzo, C. Crestini, F. Ciciriello, E. Di Mauro "Advances in the MoMa project WP 1B111. Formamide As Main Building Block In The Origin Of Life", Centro Convegni dell' Hotel Palace, Bari, Italy.
36. 10-14 Settembre 2007-XXXI Convegno Nazionale della Divisione di Chimica Organica della S.C.I. Rende, Catanzaro Italia. R. Saladino, M. Crucianelli, F. De Angelis "Impiego del sistema Metiltriossorenio/H₂O₂ in condizioni di catalisi omogenea ed eterogenea ad alta efficienza e selettività, nello studio di reazioni di funzionalizzazione ossidativa di alcani e derivati".
37. 16-20th August **2009**-238th ACS National Meeting, Washington, DC USA R. Saladino and M. Crucianelli "Toward a Novel approach for oxidative desulfurization (ODS) of diesel fuel: an efficient oxidation of thiophene derivatives with homogeneous and heterogeneous MTO/H₂O₂ systems".
38. 28 September-1 October **2009**-IX Congresso Nazionale di Planetologia, Amalfi (Sa) R. Saladino "On the role of non terrestrial minerals in the prebiotic chemistry of nucleic acid components"
39. 26-28 May **2010**-3rd Workshop of the Italian Astrobiology Society, Duino-Aurisina, Trieste. R. Saladino "The role of photochemistry in the prebiotic synthesis of the metabolic apparatus from formamide and TiO₂"
40. 25-27 October **2012**- VI Meeting ISSBB, Brindisi (LE)-R. Saladino "Modelli prebiotici basati sulla formamide e minerali non terrestri"
41. 16-17th January **2013**, IEC, Barcelona (Spain) Astrobiological and cosmochemical implications of MarcoPolo-R sampling of a primitive asteroid-R. Saladino "Prebiotic Chemistry in carbonaceous chondrites"
42. 4-5 Aprile **2013**-Astrobiologia, Elettronica e Biomedicina Spaziale-Firenze/Livorno-Dipartimento di Astronomia Università di Firenze- R. Saladino "Sintesi prebiotica delle Basi Nucleiche".
43. 5th Workshop of the Italian Astrobiology Society "Life in a Cosmic Context", 15-17 September **2015**, Trieste, Italy (<https://www.ict.inaf.it/indico/event/106/>). R. Saladino, S. Pino, G. Costanzo, E. Di Mauro "The route from formamide to RNA and metabolism. Part 1".
44. 5th Workshop of the Italian Astrobiology Society "Life in a Cosmic Context", 15-17 September **2015**, Trieste, Italy (<https://www.ict.inaf.it/indico/event/106/>). R. Saladino, S. Pino, G. Costanzo, E. Di Mauro "The route from formamide to RNA and metabolism. Part 2".
45. 21-25th November **2016**- ECLA, European Conference on Laboratory Astrophysics, Madrid, Spain "Formation of biomolecules by aqueous alteration of carbonaceous chondrites in presence of formamide".
46. 3-7th April **2017**-Early Earth and ExoEarths: origin and evolution of life, Warsaw (Poland). "The mechanism of prebiotic meteorite-catalyzed nucleosides formation under proton irradiation".
47. 15th February **2018**- Explora. Astrobiology and origin of Life" Italian Space Agency (ASI), Rome Italy.
48. L. Botta, R. Saladino, B. M. Bizzarri, J. Šponer, J. E. Šponer, T. Georgelin, M. Jaber, B. Rigaud, M. Kapralov, G. N. Timoshenko, A. Rozanov, E. Krasavin, A. M. Timperio, E. Di Mauro "Role of meteorites in the prebiotic chemistry of nucleic acids", 6th Workshop of the Italian Astrobiology Society, Napoli, (Italy) October 29th-31st **2018**.
49. Lorenzo Botta, Bruno Mattia Bizzarri, Eliana Capecchi, Ignacio Celestino, Paola Checconi, Anna Teresa Palamara, Lucia Nencioni, Raffaele Saladino "Regioselective IBX-Mediated Synthesis of Coumarin Derivatives with Antioxidant and Anti-influenza Activities", COST Action CM1407, Salina (Malta), 1st-2nd March **2018**.
50. Conference on Life on Earth and beyond **2018**, "Proton irradiation: a key to the challenge of N-glycosidic bond formation in a prebiotic context" Bertinoro (Italy).

Projects

- 2000**. Head of Research Unit for the Convention with the Company Recordati Pharmaceuticals SpA (Via M. Civitali 1, 20148 Milan, Italy) for a project entitled "Study on the synthesis of compounds with antiviral activity." Duration of the project: No 12 months.
- 2002**. Convention Search by Company Recordati Pharmaceuticals SpA (Via M. Civitali 1, 20148 Milan) for a project entitled "Processes of original synthetic active pharmaceutical ingredients-famciclovir." Duration of the project: No 12 months. Notes: From the Convention was published a patent.
- 2002**. Convention Search by Company Recordati Pharmaceuticals SpA (Via M. Civitali 1, 20148 Milan) for a project entitled "Processes of original synthetic active pharmaceutical ingredients."Duration of the project: No 12 months. Notes: From the Convention was published a patent.
- 2002-2007**. Head of Research Unit of the European project EU-COST Action D27 titled "Prebiotic Chemistry and Early Evolution: Etiology, Replication, Activity and Persistence of RNA", adopted on 07.06.2001, start date 27/02/2002, termination date 26/02/2007. Action D27 Aimed at development of the chemistry connected with the origin of life and early evolution of life on Earth, with special emphasis on self-replicating systems, prebiotic synthesis of nucleic acids and polypeptides, as well as

simple protocells as early models of biological cells. To accomplish this objective, D27 has coordinated the scientific activities of the very many European research laboratories working in the field of prebiotic chemistry and early evolution, has Contributed to focus These activities into a few important research directions for greater efficiency, and has itself established businesses as the first European research network on prebiotic chemistry, origin and early evolution of life capable of interacting at an international level and in a competitive way.

2002-2003. Head of Research Unit of the project of the Italian Space Agency (ASI), Research Contract No. I/R/315/02 of 20/September/2002 entitled "Role of cosmic dust analogues as catalysts of the syntheses and degradations of biogenically relevant prebiotic molecules". Duration of the project: No 12 months.

2003-2004 Scientific Director of the Research Unit of the project PRIN-COFIN entitled "Use of organometallic derivatives of rhenium for the synthesis of new biologically active derivatives 1'-homonucleosides"

2004-2007. Head of Research Unit of the European project EU-COST Action E41 entitled "Analytical tools with applications for wood and pulping chemistry", adopted on 04.12.2002, start date 07/06/2004, end date 06/06 / 2008. The main objective of the Action is to develop and evaluate analytical methods related to wood, pulping and bleaching chemistry. The Action will evaluate the potential and restrictions of the presently available chemical analytical methods for wood and pulp fiber and fiber components. Duration of the project: No 36 months.

2004. Convention Search by Company Biofer spa (Viale Vittorio Veneto 2-41100, Modena, Italy) for a project entitled "Design and development of new synthesis routes of Gabesato Mesylate and other biologically active substances." Subject: Total synthesis of biologically active substances. Duration of the project: No 12 months.

2005. Convention Search by Company Biofer spa (Viale Vittorio Veneto 2-41100, Modena) for a project entitled "Design and development of new synthesis routes of Anagrelide and other biologically active substances." Duration of the project: No 12 months.

2005. Convention Search by Company Biofer spa (Viale Vittorio Veneto 2-41100, Modena) for a project entitled "Design and development of new ways of synthesis of (-)-galantamine and other biologically active substances." Duration of the project: No 12 months.

2005 Consulting for the European Science Foundation (ESF) for the preparation of the annual planning document "Scientific perspective for future European Space Agency program in life and physical sciences in space"

2006. Convention Search by Company Biofer spa (Viale Vittorio Veneto 2-41100, Modena) for a project entitled "Design and development of new synthesis routes dell'Anagrelide, dell'Eplerenone and other biologically active substances." Duration of the project: No 12 months.

2006. Advisory Agreement with the Company Lachifarma Ltd. (SS 16, Industrial Area, Zollino 73010 Lecce, Italy) of ROP 2000-2006 "Support Investment Industrial Research, Pre-Competitive Development and Technology Transfer" entitled "Characterization of water process of pressing of the olives in order to identify useful compounds to chemical-pharmaceutical and agro-food (acronym CAPR.OL.). Topic: characterization of natural substances, catalytic and biocatalytic transformations and development of nutraceutical formulations. Duration of the project: No 12 months.

2006-2008 Head of Scientific Research Unit of the Project of National Importance PNR-FIRB "Identification, characterization and evaluation of innovative pharmaceutical strategies, based on the interference with cellular metabolic pathways. A study of their use for the treatment and prevention of diseases of viral etiology. "

2006-2009. Head of Research Unit of the project of the Italian Space Agency (ASI), Research Contract No. I/014/06/0 of 25/May/2006 entitled "Biotechnological Applications by Molecule Man." Topic: Total synthesis of the natural molecules from formamide. Duration of the project: No 36 months.

2006. Advisory Agreement with the Company Lachifarma Ltd. (SS 16, Industrial Area, Zollino 73010 Lecce) as part of the NRP (National Research Plan), Law 297/1999, Ministerial Decree 29006 of 03.10.2000 entitled "Identification, characterization and preliminary evaluation of the effectiveness of innovative pharmaceutical strategies based on interference with molecular pathways. Study of their use for the prevention and therapy of diseases of viral etiology. " Topic: Total synthesis and semisynthesis of derivatives of hydroxytyrosol and artemisinin, with particular attention to the use of techniques of biocatalysis. Duration of the project: No 12 months.

2007. Convention Search with the company Solvay spa (Rue de Ransbeek, 310 B-1120 Bruxelles, Belgium) for a project entitled "Production of chemicals from cellulose wastes by activation of hydrogen peroxide with heterogeneous catalysts methylrhenium trioxide, in Particular production of maleic anhydride from low molecular weight cellulose derivatives, furfural and hydroxymethylfurfural. " Topic: Production of high value-added products from cellulose. Duration of the project: No 12 months. Notes: From the Convention was published a patent.

2007-2009 Head of the Research Unit of the project called Chemical Bonding Center of the U.S. National Science Foundation (National Science Foundation) titled "The Origins and Early Metabolism Chemical Inventory Project".

2007-2010. Head of Research Unit of the project of the Italian Space Agency (ASI)-INAF, Research Contract No. I/015/07/0 of 01/June/2007 entitled "Studies of solar system exploration." Topic: identification of new ways of prebiotic synthesis models in terrestrial and space. Duration of the project: No 36 months.

2008. Convention Search by Company Reckitt Benckiser Corporate Services Limited RB (103-105 Bath Road, Slough, Berkshire, SL1 3UH) for a project entitled "Development of new solid metal oxidation catalysts for traditional bleach system based on hydrogen peroxide to be used in heterogeneous phase for application in detergency. " Subject: Design and preparation of organometallic catalysts for the activation of hydrogen peroxide in the context of detergency. Duration of the project: No 9 months.

2008 Scientific Research Unit of the project ASI-FEBO (Facility for Exobiology and Chemistry Observations) to develop the International Space Station (ISS).

2008-2012. Head of Research Unit and Member of the Management group of the European project EU-COST Action CM0703 entitled "Systems Chemistry", approved 16/11/2007, start date 03/04/2008, end date 02/04/2012 . The main objective of the Action is to investigate autocatalytic reaction systems Within supramolecular, prebiotic organic and other fields of chemistry and to develop methods for Their integration into dynamic supersystems. Duration of the project: No 48 months.

2009-2013. Head of Research Unit WP3 (http://web.abo.fi/fak/ktf/spk/costfp0901/wg2_participants.html) of the European project EU-COST Action FP0901 entitled "Analytical Techniques for Biorefineries", approved on 26 / 05/2009, start date 15/10/2009, end date 14/10/2013. Topic: Trees, annual and perennial plants, recycled fibers, and lignocellulosic side streams from forest and agroindustry are renewable resources for the development of natural materials, biochemicals, and bioenergy. The chemical complexity of plant materials, the feed material of Biorefineries, renders the analyzes of the feed constituents, processes, and valorised products challenging. The main objective of the Action is to develop new and evaluate existing

analytical methods related to forest-based and agroindustrial Biorefineries. Thus, the Action covers the analytical methods for the Biorefinery feed material and processed for biochemicals, Biomaterials, and process residues. Other areas will be Emphasised development of analytical on-line applications, hyphenated techniques, and applying statistical multicomponent analyzes to sort out the relevant data from the main data stream. Duration of the project: No 48 months.

2011. Convention Search by Company Terme dei Papi thermal spa (Bath Road 12, 01100 Viterbo) for a project entitled "Qualitative and quantitative analysis of the organic component of the sludge produced in the plant in Viterbo, including analysis of their charitable activities for ' body. " Topic: Characterization of natural substances and their transformation by catalytic and biocatalytic. Duration of the project: No 12 months.

2012. Convention Search by Company Terme dei Papi thermal spa (Bath Road 12, 01100 Viterbo) for a project entitled "Structural characterization of the phospholipid component present in the sludge Bagnaccio by applying techniques of nuclear magnetic resonance of phosphorus and evaluation of potential antioxidant effects mixtures of extracts ". Topic: Characterization of natural substances and their transformation by catalytic and biocatalytic. Duration of the project: No 12 months.

2013-2017. Advisory Agreement with the company ABOCA spa (Arezzo, Italy) "analysis of vegetable extracts with biological activity".

2014. MC- member in the UE-COST Action TD 1308 dal titolo "Origins and evolution of life on Earth and in the Universe (ORIGINS)". Chair of the Action: Dr Muriel GARGAUD (FR), Vice Chair of the Action: Prof Wolf GEPPERT (SE). This Action addresses three basic questions that fascinate and intrigue scientists, and the general public alike, questions that are pivotal to our understanding and appreciation of our place in the universe. Where, when and how did life emerge and evolve on Earth? What are the conditions under which life can exist? Does life exist elsewhere in the Universe and, if it does, how can it be detected and identified?

2014-today. Head of Research Unit for the project ASI N. 2014-026-R.0 Codice unico protocollo CUP F 92114000030005 dal titolo "Exobiology and extreme environments: from prebiotic chemistry to extremophiles".

2016-2017 Convention Search with the company IRBM-CNCCS "Identification of bioactive agents from natural sources".

2016-2017 Convention Search with the company Valmet (Caienzano, Firenze) "Plating: supramolecular chemistry for the stabilization of metal surfaces".

2016-2019 PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2015 Prot. 2015F59J3R PART A. STARS in the CAOS (Simulation Tools for Astrochemical Reactivity and Spectroscopy in the Cyberinfrastructure for Astrochemical Organic Species).

2019-2022 Italian Space Agency (ASI) BANDO ASI DC-VUM-2017-034 CONTRATTO DI FINANZIAMENTO ASI N. 2019-3-U.0, CUP F86C16000000006 Vita nello spazio - Origine, presenza, persistenza della vita nello spazio, dalle molecole agli estremofili.

2017-2022 PRIN project "ORIGINALE CHEMIAE in Antiviral Strategy - Origin and Modernization of Multi-Component Chemistry as a Source of Innovative Broad Spectrum Antiviral Strategy", cod. 2017BMK8JR_002.

Dati personali

Autorizzo il trattamento dei miei dati personali

