



Decreto del Direttore Generale 2024

Oggetto: nomina Commissione Giudicatrice per la procedura aperta telematica per la fornitura di strumentazione scientifica “Nuclear magnetic Resonance (NMR) per il Dipartimento di Scienze Molecolari e Nanosistemi” - CIG: B1CFFDDF46 - CUP: H77G22000040004

IL DIRETTORE GENERALE

- VISTI:** il D.Lgs. n. 36 del 31 marzo 2023 «Codice dei contratti pubblici in attuazione dell'articolo 1 della legge 21 giugno 2022, n. 78, recante delega al Governo in materia di contratti pubblici» e s.m.i., di seguito per brevità indicato anche “Codice”;
l'art. 37 del D. Lgs. n. 33/2013 e s.m.i. e l'art. 28 del Codice in ordine agli obblighi di trasparenza dei contratti pubblici;
- RICHIAMATI:** lo Statuto di Ateneo;
il Regolamento di Ateneo per l'Amministrazione, la Finanza e la Contabilità, approvato con D.R. n. 255/2019 del 04/04/2019;
il Codice etico e di comportamento dell'Università Ca' Foscari Venezia adottato con Decreto Rettorale n. 1116 del 05.11.2019 e modificato con D.R. n. 765 del 29/06/2023;
la sottosezione "Rischi corruttivi e trasparenza" del Piano integrato di Attività e Organizzazione (PIAO) 2024-2026 redatto ai sensi dell'art. 6 del decreto legge 9 giugno 2021, n. 80 e approvato dall'Università con Delibera del Consiglio di Amministrazione n. 4 del 2 febbraio 2024;
il Decreto del Direttore Generale n. 409/2018, prot. n. 32869 del 07/06/2018 di “Organizzazione – Individuazione dei poteri di sottoscrizione” così come modificato con Decreto del Direttore Generale n. 346/2024 del 30.04.2024;
- VISTO** il Decreto Ministeriale 1274/2021 che dispone le risorse del Fondo per l'Edilizia Universitaria e per le Grandi Attrezzature scientifiche pari complessivamente a € 1.412.173.760 per gli anni 2020-2035;
- VISTA** la delibera del CdA n. 118 del 8 luglio 2022 in cui è stata autorizzata la presentazione del progetto “Programma d'efficientamento tecnologico-prestazionale del Campus Scientifico dell'Università Ca' Foscari Venezia” messo a punto da ASIT e dal CSA per accedere al finanziamento disposto dal MUR con D.M. 1274/2021 “Fondo per l'edilizia universitaria e per le grandi attrezzature scientifiche” per l'importo di euro 10.379.394,34;
- VISTO** che con DM n. 144/2023 del 16-03-2023 il Ministero ha approvato la graduatoria delle Istituzioni universitarie statali, assegnando all'Università Ca' Foscari Venezia, secondo i criteri fissati all'art. 2 co. 1 del DM 1274/2021, il punteggio di 39,65 e un finanziamento di euro 10.379.394,00;
- VISTO** il budget del Dipartimento per l'esercizio 2024 approvato dal Consiglio di Dipartimento nella seduta del 17/11/2023;



- VISTA** la delibera n. 173 - 2023 del Consiglio di Amministrazione che al punto 3 del deliberato approva il programma triennale degli acquisti di forniture e servizi 2024/2026, allegato al documento di bilancio;
- RICHIAMATA** la delibera Consiglio di Dipartimento del 22/02/2024 che approva la proposta di acquisto per la fornitura di "Nuclear magnetic Resonance (NMR) 600 MHz con cryoprobe e probe multinucleare + ammodernamento consolle NMR 400 MHz, probe inverso per 400 MHz, probe in stato solido per 400 MHz e spostamento dell'attuale console del 400 MHz sul 300 MHz" per l'importo stimato di euro 1.660.100,00 (iva esclusa);
- RICHIAMATA** la Delibera n. 45 del Consiglio di Amministrazione del 06 Marzo 2024 con la quale è stato aggiornato il programma triennale degli acquisti di beni e servizi 2024/2026 relativamente al CUI F80007720271202400016 ed è stato autorizzato l'espletamento di una procedura aperta sopra soglia, ai sensi dell'art. 71 del D.lgs. 36/2023, per la fornitura di strumentazione scientifica per l'importo di euro 1.660.100,00 (IVA esclusa);
- RICHIAMATO** il Decreto del Direttore Generale Rep. n. 407/2024 prot. n. 113759 del 24/05/2024 di autorizzazione all'avvio della procedura di gara in oggetto;
- VISTI** il bando di gara, il disciplinare di gara, il capitolato speciale di appalto, lo schema di contratto e i relativi allegati;
- CONSIDERATO** che il termine per la presentazione delle offerte è scaduto il 10/07/2024, alle ore 12.00 e che entro tale termine è pervenuta offerta da parte di: Bruker Italia Srl Unipersonale;
- CONSIDERATA** la necessità di procedere alla nomina della commissione giudicatrice ai sensi dell'art. 93 del D.lgs. n. 36/2023 per la valutazione delle offerte tecniche ed economiche degli operatori economici ammessi dal prosieguo della gara come risulta dai verbali del Sedizio di gara del 11/07/2024 e 12/07/2024 agli atti;
- CONSIDERATO** che, ai sensi del punto 19 del disciplinare di gara, la commissione giudicatrice è nominata dopo la scadenza del termine per la presentazione delle offerte ed è composta da un numero dispari pari a n. 3 membri, esperti nello specifico settore cui si riferisce l'oggetto del contratto;
- CONSIDERATA** la necessità di nominare i componenti della commissione giudicatrice tra il personale interno di questo Ateneo dotato di adeguate competenze professionali per la valutazione delle offerte tecniche ed economiche relative alla gara in oggetto, nel rispetto del principio di rotazione delle nomine;
- CONSIDERATO** che il Prof. Marco Bortoluzzi, il Prof. Alessandro Scarso, il Prof. Fabiano Visentin hanno le competenze specialistiche per la valutazione delle offerte tecniche ed economiche relative alla gara in oggetto;
- ACQUISITE** le dichiarazioni rese ai sensi dell'art. 93, comma 5, del D.lgs. n. 36/2023 assunte al prot. n. 177428 del 15/07/2024 (Prof. Marco Bortoluzzi) prot. n. 177879 del 16/07/2024 (Prof. Alessandro Scarso), prot. n. 177511 del 15/07/2024 (Prof. Fabiano Visentin); e la dichiarazione prot. n. 178055 del 16/07/2024 della sig.ra Sonia Barizza;



- ACQUISITI** i curricula del prof. Marco Bortoluzzi, del prof. Alessandro Scarso e del prof. Fabiano Visentin;
- VERIFICATA** altresì la disponibilità del Prof. Marco Bortoluzzi, del Prof. Alessandro Scarso e del Prof. Fabiano Visentin ad accettare l'incarico;
- PRESO ATTO** che il presente provvedimento è conforme alla legislazione vigente ed ai regolamenti di Ateneo;

DECRETA

Art. 1 Di nominare la seguente Commissione Giudicatrice per la valutazione delle offerte tecniche ed economiche pervenute:

- Prof. Alessandro Scarso **PRESIDENTE**
- Prof. Marco Bortoluzzi **COMPONENTE**
- Prof. Fabiano Visentin **COMPONENTE**

Assume le funzioni di segretaria verbalizzante la sig.ra Sonia Barizza.

Art. 2 Di disporre che, ai sensi dell'art. 28 del Codice, il presente provvedimento venga pubblicato sul sito web dell'Ateneo nella sezione "Amministrazione Trasparente".

II DIRETTORE GENERALE

Dott. Gabriele Rizzetto

VISTO: IL RUP
Prof. Maurizio Selva

Visto il Segretario Dipartimento
Sig.ra Sonia Barizza

Marco Bortoluzzi

URL: <https://www.unive.it/data/people/5591286>

EDUCATION

29/06/2017	Academic Lecturing Programme, School for International Education, Ca' Foscari University of Venice, Italy.
07/03/2007	Qualification for secondary school teaching (SSIS), classes A013 (Chemistry and Chemical Technologies) and A060 (Natural Sciences, Chemistry and Geography, Microbiology). SISS Veneto, Italy.
16/12/2004	Ph.D. in Chemical Sciences, thesis in Coordination and Organometallic Chemistry; Faculty of Mathematical, Physical and Natural Sciences, Ca' Foscari University of Venice, Italy.
14/06/2001	Five-years Degree in Industrial Chemistry, thesis in Inorganic Chemistry, mark 110/110 <i>cum laude</i> ; Faculty of Mathematical, Physical and Natural Sciences, Ca' Foscari University of Venice, Italy.

POSITIONS (Ca' Foscari University unless otherwise stated)

From January 2020 - actual	Associate Professor, SSD CHIM/03 (General and Inorganic Chemistry).
Academic year 2023/2024	Contract Professor of General Chemistry; Department of Cardio-Thoracic and Vascular Sciences and Public Health, University of Padova, Italy.
From October 2007 to December 2019	University Researcher, SSD CHIM/03 (General and Inorganic Chemistry).
Academic year 2006/2007	Contract Professor of Computational Methods for STM.

FELLOWSHIPS

From 10/1/2005 to 10/4/2005	Intellectual work contract under project, subject: Synthesis and characterization of cationic aqueous complexes of Pt(II) for the purpose of studying the interactions of coordinated water with the counter-anion by NMR spectroscopy; Department of Chemistry, Ca' Foscari University of Venice, Italy.
From 11/4/2005 to 11/4/2007	Research fellowship, subject: New mono-cyclopentadienyl and non-cyclopentadienyl organometallic compounds of elements of Groups 3, 4 and 10 such as catalysts for the homo- and co-polymerization of polar and apolar olefins; Department of Chemistry, Ca' Foscari University of Venice, Italy.

SUPERVISION AND CO-SUPERVISION OF GRADUATE STUDENTS

From 2009 to 2024	More than 50 Bachelor and Master Degree Students, some in collaboration with foreign universities and research institutions (Dublin, Ireland; Berlin, Germany; Ljubljana, Slovenia; Nova Gorica, Slovenia; Valencia, Spain). 2 Ph.D. students.
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TEACHING ACTIVITIES (Ca' Foscari University unless otherwise stated)

A.y. 2013/2014 - 2023/2024	Chemistry and technology of f-block elements (IT).
A.y. 2022/2023 - 2023/2024	Bioinorganic Chemistry and Photo(bio)chemistry (EN).
A.y. 2011/2012 - 2023/2024	Chemistry of transition elements and laboratory (IT).
A.y. 2023/2024	General Chemistry (IT). University of Padova, Italy.
A.y. 2022/2023	Ahead- General Chemistry.
A.y. 2017/2018 - 2018/2019	Simulation of molecular and periodic systems (EN).
A.y. 2014/2015 and 2016/2017	Chemistry of transition elements and laboratory (EN).

A.y. 2011/2012 - 2016/2017	Simulations of molecular and periodic systems (IT).
A.y. 2009/2010 - 2011/2012	Inorganic chemistry and laboratory (IT).
A.y. 2009/2010 - 2010/2011	Inorganic chemistry 2 and laboratory (IT).
A.y. 2008/2009 - 2010/2011	Spectroscopic and computational methods for SM (IT).
A.y. 2006/2007 - 2008/2009	Computational methods for STM (IT).

ORGANISATION OF SCIENTIFIC MEETINGS (Ca' Foscari University unless otherwise stated)

2023	Seminar: The energy challenges of the future: magnetic confinement fusion. About 70 participants.
2023	Congress: International Workshop on Forward-Looking Materials. About 100 participants.
2023	Seminar: Homogeneous system for photo-driven CO ₂ reduction: focus on earth-abundant metal complexes. About 60 participants.
2021	Workshop: CIRCC (Italian Consortium Chemical Reactivity and Catalysis) PhD Day. About 130 participants. University of Bari, Italy.
2019	Seminar: Detection of carbon monoxide in air and biological systems. About 50 participants.
2018	Seminar: Metals in Medicine. About 70 participants.
2017	Seminar: The Reactivity of Halides of High-Valent Group 5 and 6 Elements with Organic Compounds: Coordination Chemistry and Unusual Activation Reactions. About 50 participants.
2017	Seminar: Modern Theoretical and Experimental Alchemy to Develop Sustainable and Green Homogeneous Gold(I) Catalysis. About 50 participants.

INSTITUTIONAL RESPONSIBILITIES (Ca' Foscari University unless otherwise stated)

From 2023 - actual	Member of the steering committee of the doctorate in Sustainable Chemistry.
From 2021 - actual	Member of the Ca' Foscari Board for Sustainability.
From 2020 - actual	Delegate for Sustainability of the Department of Molecular Sciences and Nanosystems, with the coordination of the course Competence for Sustainability. Delegate for Gender Equality.
From 2020 - actual	Member of the steering committee of the doctorate in Chemistry (University of Trieste / Università Ca' Foscari Venezia).
From 2017 - actual	Member of the Joint Commission of Teachers and Students of the Department of Molecular Sciences and Nanosystems.
2024	Commissioner for the final examination of the Ph.D. in Food and Human Health (University di Udine, Italy).
2023	Commissioner in 2023 for the final examination of the Ph.D. in Science and Technology of Bio and Nanomaterials.
2023	Supervisor of a Ph.D. thesis in Food and Human Health (University di Udine, Italy).
2022	Member of the commission for RTD-B researcher position, SSD CHIM/03 (University of Pisa, Italy).
2022	Commissioner for the final examination of the Ph.D. in Chemical and Environmental Sciences (University of Insubria, Italy).
From 2021 to 2023	Member of the 2021-2023 CIRCC (Interuniversity Consortium for Chemical Reactivity and Catalysis) executive board.
2020	Commissioner in 2020 for the final Ph.D. exam in Chemistry (University College Dublin, Ireland).
2020	Supervisor of a Ph.D. thesis in Models and Methods for Material and Environmental Sciences (University of Modena and Reggio Emilia, Italy).
2019	Commissioner for the final examination of the Ph.D. in Energy and Environmental Engineering Sciences (University of Udine, Italy).
From 2018 to 2023	Delegate of Ca' Foscari University of Venice to the Interuniversity Consortium for Chemical Reactivity and Catalysis (CIRCC).
2017	Commissioner for the final Master's degree exam in Environment (University of Nova Gorica, Slovenia).

2017 and 2021	Commissioner for the entrance examination to the Research Doctorate in Chemistry (Ca' Foscari University of Venice / University of Trieste).
2016 and 2019	Commissioner for the final examination of the Ph.D. in Chemistry (Ca' Foscari University of Venice / University of Trieste).
2013	Commissioner for the final examination of the Ph.D. in Chemical Sciences.

MEMBERSHIP OF SCIENTIFIC SOCIETIES

From 2020	Scientific collaborator of AIMPLAS, Technological Institute of Plastics (Valencia, Spain).
2019	Reviewer for the Chilean Fund for Scientific and Technological Development (Chile).
From 2014	Reviewer for the Serbian Chemical Society (Serbia).
2013	Reviewer for ISCRA, Italian Supercomputing Resource Allocation (CINECA, Bologna, Italy).
From 2007	Member of the Interuniversity Consortium for Chemical Reactivity and Catalysis (CIRCC).
From 2007	Reviewer for the Royal Society of Chemistry (UK). Reviewer for RSC 2018 Wolfson funding.
From 2007	Reviewer for the American Chemical Society (USA).

ACADEMIC TRACK RECORD

Author of more than 190 articles in international Journals (18 with the Ph.D. supervisor, Prof. G. Albertin) and of various communications at national and international conferences. List of the 2020-2024 articles with role as corresponding author underlined:

- 1) Castro, J.; Ferraro, V.; Bortoluzzi, M. Crystals 2024, 14, 422
- 2) Castro, J.; Ferraro, V.; Bortoluzzi, M. Crystals 2024, 14, 162
- 3) Cesari, C.; Bortoluzzi, M.; Femoni, C.; Forti, F.; Iapalucci, M.C.; Zacchini, S. Dalton Trans. 2024, 53, 3865
- 4) Saviozzi, C.; Biancalana, L.; Funaioli, T.; Bortoluzzi, M.; De Franco, M.; Guelfi, M.; Gandin, V.; Marchetti, F. Inorg. Chem. 2024, 63, 1054
- 5) Ferraro, V.; Castro, J.; Bortoluzzi, M. Molecules 2024, 29, 239
- 6) Bortoluzzi, M.; Agostinis, L.; Ghincolov, S.; Ferraro, V.; Marra, G., Castro, J. Chem. Pap. 2023, 77, 7999
- 7) Bresciani, G.; Cervinka, J.; Kostrhunova, H.; Biancalana, L.; Bortoluzzi, M.; Pampaloni, G.; Novohradsky, V.; Brabec, V.; Marchetti, F.; Kasparkova, J. Chem. Biol. Interact. 2023, 385, 110742
- 8) Bortoluzzi, M.; Ghincolov, S.; Agostinis, L. Chem. Proc. 2023, 14, 19
- 9) Marra, G.; Bortoluzzi, M.; Agostinis, L. Chem. Proc. 2023, 14, 18
- 10) Forti, F.; Cesari, C.; Bortoluzzi, M.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. New J. Chem. 2023, 47, 19289
- 11) Cesari, C.; Bortoluzzi, M.; Funaioli, T.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Inorg. Chem. 2023, 62, 14590
- 12) Ferraro, V.; Girotto, M.; Castro, J.; Bortoluzzi, M. Dyes Pigments 2023, 217, 111388
- 13) Ferraro, V.; Genesin, L.; Castro, J.; Pietrobon, L.; Vavasori, A.; Bortoluzzi, M. J. Organomet. Chem. 2023, 993, 122711
- 14) Bonaldi, L.; Bortoluzzi, M.; Zacchini, S.; Pampaloni, G.; Marchetti, F., Biancalana, L. Inorg. Chem. 2023, 62, 7814
- 15) Nocito, F.; Bortoluzzi, M.; Aresta, M.; Dibenedetto, A. ACS Catal. 2023, 13, pp. 5643
- 16) Schoch, S.; Bresciani, G.; Saviozzi, C.; Funaioli, T.; Bortoluzzi, M.; Pampaloni, G.; Marchetti, F. New J. Chem. 2023, 47, 8828
- 17) Bresciani, G.; Zacchini, S.; Pampaloni, G.; Bortoluzzi, M.; Marchetti, F. Molecules, 2023, 28, 3251

- 18) Cesari, C.; Berti, B.; Bortoluzzi, M.; Femoni, C.; Funaioli, T.; Vivaldi, F.M.; Iapalucci, M.C.; Zacchini, S. Dalton Trans. 2023, 52, 3623
- 19) Ferraro, V.; Castro, J.; Agostinis, L.; Bortoluzzi, M. Inorg. Chim. Acta 2023, 545, 121285
- 20) Cesari, C.; Bortoluzzi, M.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Inorg. Chim. Acta 2023, 545, 121281
- 21) Bresciani, G.; Bortoluzzi, M.; Marchetti, F.; Pampaloni, G. Eur. J. Inorg. Chem. 2022, e202200402
- 22) Ferraro, V.; Girotto, M.; Bortoluzzi, M. Chem. Proc. 2022, 8, 87
- 23) Bresciani, G.; Boni, S.; Zacchini, S.; Pampaloni, G.; Bortoluzzi, M.; Marchetti, F. Dalton Trans. 2022, 51, 15703
- 24) Cesari, C.; Bortoluzzi, M.; Forti, F.; Gubbels, L.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Inorg. Chem. 2022, 61, 14726
- 25) Cesari, C.; Berti, B.; Funaioli, T.; Femoni, C.; Iapalucci, M.C.; Pontiroli, D.; Magnani, G.; Riccò, G.; Bortoluzzi, M.; Vivaldi, F.M.; Zacchini, S. Inorg. Chem. 2022, 61, 12534
- 26) Ferraro, V.; Baggio, F.; Castro, J.; Bortoluzzi, M. Eur. J. Inorg. Chem. 2022, e202200119
- 27) Bortoluzzi, M.; Castro, J.; Ferraro, V. Inorg. Chim. Acta 2022, 536, 120896
- 28) Sole, R.; Toldo, S.; Bortoluzzi, M.; Beghetto, V. Catal. Sci. Tech. 2022, 12, 4561
- 29) Bresciani, G.; Zacchini, S.; Pampaloni, G.; Bortoluzzi, M.; Marchetti, F. Dalton Trans. 2022, 51, 8390
- 30) Linsalata, D.; Aresta, M.; Bortoluzzi, M.; Ditaranto, N.; Nocito, F.; Dibenedetto, A. J. CO2 Util. 2022, 58, 101918
- 31) Cesari, C.; Bortoluzzi, M.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Dalton Trans. 2022, 51, 2250
- 32) Bresciani, G.; Schoch, S.; Biancalana, L.; Zacchini, S.; Bortoluzzi, M.; Marchetti, F. Dalton Trans. 2022, 51, 1936
- 33) Bresciani, G.; Busto, N.; Ceccherini, V.; Bortoluzzi, M.; Pampaloni, G.; Garcia, B.; Marchetti, F. J. Inorg. Biochem. 2022, 227, 111667
- 34) Castro, J.; Ferraro, V.; Bortoluzzi, M. New J. Chem. 2022, 46, 18938
- 35) Ferraro, V.; Castro, J.; Trave, E.; Bortoluzzi, M. J. Organomet. Chem. 2022, 957, 122171
- 36) Ferraro, V.; Sole, R.; Bortoluzzi, M.; Beghetto, V.; Castro, J. Appl. Organomet. Chem. 2021, 35, e6401
- 37) Bortoluzzi, M.; Ferraro, V.; Sartor, F. J. Fluoresc. 2021, 31, 1433
- 38) Bortoluzzi, M.; Castro, J.; Di Vera, A.; Palù, A.; Ferraro, V. New J. Chem. 2021, 45, 12871
- 39) Cesari, C.; Bortoluzzi, M.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Dalton Trans. 2021, 50, 9610
- 40) Cesari, C.; Berti, B.; Bortoluzzi, M.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Inorg. Chem. 2021, 60, 8811
- 41) Ferraro, V.; Castro, J.; Agostinis, L.; Bortoluzzi, M. Trans. Met. Chem. 2021, 46, 391
- 42) Bresciani, G.; Bortoluzzi, M.; Pampaloni, G.; Marchetti, F. Org. Biomol. Chem. 2021, 19, 4152
- 43) Berti, B.; Bortoluzzi, M.; Cesari, C.; Femoni, C.; Hayatifar, M.; Iapalucci, M.C.; Zacchini, S. J. Cluster Sci. 2021, 32, 743
- 44) Bresciani, G.; Bortoluzzi, M.; Ghelarducci, C.; Marchetti, F.; Pampaloni, G. New J. Chem. 2021, 45, 4340
- 45) Bortoluzzi, M.; Ferraro, V.; Castro, J. Dalton Trans. 2021, 50, 3132
- 46) de Palo, A.; La Ganga, G.; Nastasi, F.; Guelfi, M.; Bortoluzzi, M.; Pampaloni, G.; Puntoniero, F.; Campagna, S.; Marchetti, F. Eur. J. Inorg. Chem. 2021, 861
- 47) Bortoluzzi, M.; Di Vera, A.; Pietrobon, L.; Castro, J. J. Coord. Chem. 2021, 74, 1466
- 48) Ferraro, V.; Bortoluzzi, M. Chem. Proc. 2021, 3, 20.
- 49) Bortoluzzi, M.; Ferraro, V. Spectroscopy Europe 2020, 32, 14

- 50) Berti, B.; Bortoluzzi, M.; Cesari, C.; Femoni, C.; Iapalucci, M.C.; Mazzoni, R.; Zacchini, S. Eur. J. Inorg. Chem. 2020, 2191
- 51) Berti, B. Bortoluzzi, M.; Ceriotti, A.; Cesari, C.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Inorg. Chim. Acta 2020, 512, 119904
- 52) Bortoluzzi, M.; Castro, J.; Gobbo, A.; Ferraro, V.; Pietrobon, L. Dalton Trans. 2020, 49, 7525
- 53) Ferraro, V.; Bortoluzzi, M.; Castro, J.; Vomiero, A.; You, S. Inorg. Chem. Commun. 2020, 116, 107894
- 54) Bortoluzzi, M.; Gobbo, A.; Palú, A.; Enrichi, F.; Vomiero, A. Chem. Pap. 2020, 74, 3693
- 55) Agonigi, G.; Batchelor, L.K.; Ferretti, E.; Schoch, S. Bortoluzzi, M.; Braccini, S.; Chiellini, F.; Biancalana, L.; Zacchini, S.; Pampaloni, G.; Sarkar, B.; Dyson, P.J.; Marchetti, F. Molecules 2020, 25, 1656
- 56) Bortoluzzi, M.; Agostinis, L.; Bertolasi, V. Chem. Pap. 2020, 74, 3673
- 57) Berti, B.; Bortoluzzi, M.; Cesari, C.; Femoni, C.; Iapalucci, M.C.; Zacchini, S. Inorg. Chim. Acta 2020, 503, 119432
- 58) De Palo, A.; La Ganga, G.; Nastasi, F.; Guelfi, M.; Bortoluzzi, M.; Pampaloni, G.; Puntoriero, F.; Campagna, S.; Marchetti, F. Dalton Trans. 2020, 49, 3341
- 59) Berti, B.; Bortoluzzi, M.; Cesari, C.; Femoni, C.; Iapalucci, M.C.; Soleri, L.; Zacchini, S. Inorg. Chem. 2020, 59, 15936
- 60) Bortoluzzi, M.; Castro, J.; Gobbo, A.; Ferraro, V.; Pietrobon, L.; Antoniutti, S. New J. Chem. 2020, 44, 571.
- 61) Provinciali, G.; Bortoluzzi, M.; Funaioli, T.; Zacchini, S.; Campanella, B.; Pampaloni, G.; Marchetti, F. Inorg. Chem. 2020, 59, 17497
- 62) Berti, B.; Bortoluzzi, M.; Cesari, C.; Femoni, C.; Iapalucci, M.C.; Mazzoni, R.; Vacca, F.; Zacchini, S. Inorg. Chem. 2020, 59, 2228

Author of two textbooks on computational and inorganic chemistry: *Chimica degli elementi di transizione e della serie dei lantanidi* (Libreria Progetto, Padova, 2021); *Approccio qualitativo alla Chimica Computazionale* (Aracne Editrice, Roma, 2009). Invited lectures: *Thorium as alternative energy* (Ca' Foscari University of Venice, 2022); *Sensitization of manganese(II) luminescence by [O=P]-donor Ligands* (University of Insubria, 2022); *Recent advances in manganese(II) luminescent coordination compounds* (Ca' Foscari University of Venice, 2020); *Antenna-ligands in photoluminescent complexes of lanthanides* (University of Pisa, 2015). Author of a deposited European patent concerning flame retardants (EP21383062).

FUNDING

Beneficiary of the 2017 FFABR funding. Collaborator of the PRIN 2007 project "Advanced polymeric materials from organometallic catalysis". Member in 2009 of the MISE/CRUI project "Improvement of solar energy conversion through the modulation of the solar spectrum". Scientific coordinator of the ISCRA 2010 and 2022 projects "Computational studies on group 3 and f-block metal complexes" and "Inorganic derivatization of biological materials for lighting". Member of the ISCRA 2010, 2011, 2020 and 2021 projects "Quantum Inorganic Chemistry: synergy between theory and experiment", "Iron coordination polymers for cultural heritage" and "Copper Luminescence: in silico approach (COLUMN)". Scientific coordinator of the 2014 University project "Energy conversion by new lanthanide and transition metal derivatives". Scientific coordinator of the SPIN 2018 project "Inexpensive COMplexes for Oled (I COOL)". Since 2022 component of the "Network 4 Energy Sustainable Transition - NEST" project (MIUR project code PE000021). Since 2023 component of the PRIN2022 "Turbopack" project.

SPECIFIC NMR COMPETENCES

User from 2000 of NMR instruments (Bruker AC 200, Avance 300 and Avance 400) for the characterization in solution of organic and coordination compounds containing the NMR-active isotopes ^1H , ^2H , ^{11}B , ^{13}C , ^{15}N , ^{19}F , ^{23}Na , ^{31}P , ^{77}Se , ^{89}Y , ^{103}Rh , $^{107/109}\text{Ag}$, $^{117/119}\text{Sn}$ and ^{195}Pt , with a specific grant in 2005. Besides common mono- and bi-dimensional NMR spectra, the measures carried out include variable-temperature NMR studies, ^1H T_1 determination, selective decoupling and inverse-gated decoupled spectra, DOSY measurements. Specific competences are focused on the NMR characterization of paramagnetic substances. The teaching activity concerning NMR spectroscopy in solution and at the solid state started in 2010 (Spectroscopic and computational methods for SM). Multinuclear NMR spectroscopy and paramagnetic NMR are actually part of the contents of “Chemistry of transition elements and laboratory” and Chemistry and technology of f-block elements”. Advanced courses on NMR spectroscopy were followed during the Ph.D. internship and the participation to an international school on solid-state NMR is planned for June 2024.

Alessandro Scarso

Curriculum Vitae

Personal Information

Institutional address: Dipartimento di Scienze Molecolari e Nanosistemi,
Università Ca' Foscari di Venezia,
via Torino 155, 30172, VENICE, ITALY
Phone: +39 041-2348569, lab. +39 041-2348575
Fax: +39 041-2348517
e-mail: alesca@unive.it

Web page : <https://www.unive.it/data/persona/5591247>, <https://www.unive.it/pag/30289/>

orcid.org/0000-0001-6114-9181

Education

July 1991 Secondary School Graduation "Industrial Chemist" at I.T.I.S. "G. Natta" of Padova. Marks: 60/60.

18 November 1998 Laurea degree in Chemistry (5 years) at the Università di Padova (Organic Chemistry Department) with a thesis dealing with catalytic asymmetric reactions "Complexes of Ti(IV) and Zr(IV) with chiral trialkanolamine ligands with C₃-symmetry in Asymmetric Catalysis" Marks: 110/110 with honors.

Supervisor: Prof. Giulia M. Licini

Activity:

Synthesis of chiral complexes of Ti(IV) and Zr(IV) and solution speciation of the complexes by means of 2D-NMR, molecular weight determination in solution. Catalytic activity of such complexes as chiral Lewis acids in the asymmetric oxidation of sulfides to sulfoxides and asymmetric Diels-Alder reactions.

May 1999 Habilitation to the Chemist Profession. Marks: 120/130.

Nov. 1998-Nov. 2001 PhD thesis in Chemical Sciences at Università degli Studi di Padova, Organic Chemistry Department. "Peptide models of phosphoesterases: synthesis, activity and allosteric regulation of a tripodal template".

Supervisor: Prof. Paolo M. Scrimin

Activity:

Development of artificial phosphoesterase complexes as enzyme mimetics and allosteric regulation of their activity. Synthesis and solution characterization of the coordination ability of peptide-based tripodal complexes of Zn(II) and Cu(II). Catalytic activity in the hydrolysis of phosphodiester model substrates and investigation of allosteric regulation by metal coordination.

11 February 2002 Doctorate Degree at the Università degli Studi di Padova.

- December 2001- May 2002* Winner of a competitive public examination for the assignment of a temporary contract (6 months) dealing with "Supramolecular Systems based on Peptidic Foldamers" at the Università degli Studi di Padova, Organic Chemistry Department.
Supervisor: Prof. Paolo M. Scrimin.
Activity:
Development of analytical methods for oligoribonucleotides analysis and catalytic activity of peptidic metal containing catalysts as phosphodiesterase artificial mimetic enzymes.
- June 2002* Winner of a Post-Doctorate Fellowship at the Università degli Studi di Padova (2 years) for studies on supramolecular chemistry. Marks: 85/100.
Supervisor: Prof. Paolo M. Scrimin.
Activity:
Development of self-assembling structures as new environments for catalytic reactions.
- August 2002-November 2003* Post Doctoral position "Skaggs Fellowship" at the Skaggs Institute for Chemical Biology, The Scripps Research Institute, San Diego California.
Supervisor: Prof. Julius Rebek Jr.
Activity:
Synthesis and development of self-assembling nano-sized molecular capsules. Investigation of the unique properties of the inner space of such molecular containers by means of 1D and 2D NMR techniques. In depth study of coencapsulation of different guests, asymmetric recognition, gas encapsulation, social isomerism, isotopic binding effect, conformation changes upon encapsulation, reactions within nanosized containers.
- December 2003-April 2004* Winner of a Fellowship (6 months) from I.N.S.T.M. (Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali) at the Università Ca' Foscari di Venezia, Chemistry Department.
Supervisor: Prof. Giorgio Strukul.
Activity:
Development of new processes for hydrogen peroxide activation for fine chemical production (within the PRIN project 2003, "Development of new recyclable catalysts for oxidation processes with hydrogen peroxide")
- May 2004-October 2005* Winner of a two year Fellowship "Assegno di Ricerca" from Università Ca' Foscari di Venezia (Chemistry Department) dealing with "Reactivity of Recyclable Pt(II) and Pd(II) Catalysts in Selective Oxidation Reactions with Hydrogen Peroxide".
Supervisor: Prof. Giorgio Strukul.
Activity:
Development of new chiral and achiral complexes of Pt(II) and Pd(II) for hydrogen peroxide activation. Fine chemical production with new eco-friendly oxidation processes. Effect of the diphosphine ligand, Lewis acidity of the complexes on catalytic activity.

1 November 2005

Assistant Professor position (Ricercatore) in Industrial Chemistry (CHIM/04) at the faculty of Science of Università Ca' Foscari di Venezia, Chemistry Department.

Main Activity:

Development of new sustainable oxidation processes, hydrogen peroxide activation, asymmetric oxidations with homogeneous catalysts, Homogeneous catalysis with Pt(II) catalysts. Employment of new reaction media like water in catalysis. Green chemistry.

Supramolecular chemistry and catalysis. Micellar catalysis for the formation of C-C and C-heteroatom bond with high regio, and stereoselectivity. Catalysis within self-assembled hydrogen bonded supramolecular systems like the hexamer of resorcin[4]arene.

Synthesis of new N containing bisphosphonates as potential drug candidates for the treatment of bone resorption disorders like osteoporosis and Paget disease. Sustainable synthesis of bisphosphonates in water.

In all the activities, advanced characterizations by means of 1D and 2D NMR techniques are carried out, also for the determination of self-assembling properties of the molecules.

December 2013

Candidate earned habilitation for the position of associate professor in **ORGANIC CHEMISTRY 03/C1**

December 2013

Candidate earned habilitation for the position of associate professor in **INDUSTRIAL CHEMISTRY 03/C2**

April 2016

Associate Professor in **Organic CHEMISTRY SSD Chim/06**

Supramolecular chemistry and catalysis. Micellar catalysis for the formation of C-C and C-heteroatom bond with high regio, and stereoselectivity. Catalysis within self-assembled hydrogen bonded supramolecular systems like the hexamer of resorcin[4]arene.

Synthesis of new N containing bisphosphonates as potential drug candidates for the treatment of bone resorption disorders like osteoporosis and Paget disease. Sustainable synthesis of bisphosphonates in water.

In all the activities, advanced characterizations by means of 1D and 2D NMR techniques are carried out, also for the determination of self-assembling properties of the molecules.

2016

Candidate earned habilitation for the position of full professor in **ORGANIC CHEMISTRY 03/C1**

2016

Candidate earned habilitation for the position of full professor in **INDUSTRIAL CHEMISTRY 03/C2**

November 2017-

November 2020	vice-coordinator of the PhD Programme in Chemistry between Università Ca' Foscari di Venezia and Università di Trieste
November 2020	Selected as Expert Member for GEV 3 Chemistry for the VQR 2015-2019 .
November 2020	Appointed Delegate of the Head of the Department for the didactic and teaching activities of the Dipartimento di Scienze Molecolari e Nanosistemi, Università Ca' Foscari Venezia.
1 December 2021	Full professor in Organic CHEMISTRY SSD Chim06 <u>Main Activity:</u> Development of supramolecular catalytic systems operating in water and in organic media through self-assembly of specifically designed units. Supramolecular chemistry and catalysis. Micellar catalysis for the formation of C-C and C-heteroatom bond with high regio, and stereoselectivity. Catalysis within self-assembled hydrogen bonded supramolecular systems like the hexamer of resorcin[4]arene. Synthesis of bioactive compounds of lipidic, saccharide and peptidic nature for tackling neurodegenerative diseases and other diseases (in collaboration with Department of Biology Università degli studi di Padova) Design of new processes for drug synthesis in water (in collaboration with F.I.S: Fabbrica Italiana Sintetici S.p.A.) In all the activities, advanced characterizations by means of 1D and 2D NMR techniques are carried out, also for the determination of self-assembling properties of the molecules.

Institutional Positions

-
- Member of the board of the *Division of Industrial Chemistry* of the Società Chimica Italiana for the period 2013-2016.
 - Member of the board of the Veneto Section of the Società Chimica Italiana for the period 2013-2019.
 - Member of the board of the Doctorate in Chemistry, Graduate School of Università Ca' Foscari di Venezia since 2013.
 - Member of the board of the Inter-Doctorate in Chemistry between Università Ca' Foscari di Venezia and Università di Trieste since 2014 (it will end in 2026).
 - Member of the board of the Doctorate programme in Sustainable Chemistry of Università Ca' Foscari di Venezia since 2023.
 - Member of the Teaching Committee of the inter-Doctorate **PhD program in Chemistry between UniVe and UniTs**.
 - Since the beginning of **2016** Member of the Board of the **Ca' Foscari Harvard Summer School** until **2022**
 - Fellow of **Collegio Internazionale Ca' Foscari** since the beginning of **2016** until May **2022**.

- Member of the Collegio Didattico for the Degree program “Laurea Magistrale in Science and technology of Bio and Nanomaterials” from November **2016** until November **2020**.
- Member of quality group for the MD in Science and technology of bio and nanomaterials **2016- 2020**.
- From **2017** until **2020** member of the Research Committee of DSMN.
- Member of the board of the Dottorato Interesse Nazionale in Catalisi since **2023**.

Teaching Activities

Courses:

Industrial Organic Chemistry

Lab Course 2nd year Master Degree in Industrial Chemistry. (2006-2011). 48 h, [CM0035] [C83025]

Organic Chemistry 2

Lab Course 2nd year Bachelor Degree in Chemistry. (since 2012-). 66 h, [CT0055]

Colloids and Interphases mod. 2

starting 2014/2015, [CM0375]. 6 h teaching, 18h lab. From 2016 full course assigned to A. Scarso (12h class lessons, 36h lab). From 2017 the course is lectured in English.

New Frontiers in Homogeneous Catalysis

2nd year Master Degree in Industrial Chemistry. (since 2010-), [CM0318] ,[CM0123], 48 h

Asymmetric Syntheses in The Industry (2015-2017), [CT0393] Bachelor Degree in Chemistry and Sustainable Technologies, 48h

Organic Chemistry

Master degree in Science and Technology of Bio and Nanomaterials, (2016-2017) [CM0390] 48 h

Characterization Methods of Organic Molecules B. Sc. degree in Chemistry and Sustainable Technologies, (since 2018-)[CT0490] 30 h (**Advanced NMR course on molecular characterization**)

Organic Chemistry 3, Lab

Master degree in Chemistry and Sustainable Technologies, (since 2021-) [CM03331] 60 h

Bioorganic Chemistry module 2

Master degree in Chemistry and Sustainable Technologies, (since 2022-) [CM0591] 48 h

Courses for PhD students:

Supramolecular Chemistry

PhD course 15 h (2008-2013)

Supramolecular Catalysis

PhD course 15 h (2009-2013)

Scientific Writing

Inter-doctorate PhD course 15 h (2013-2019), 30 h (2020-2023)

Supramolecular Chemistry and Catalysis

PhD course 15 h (since 2014-2019)

Courses for the Collegio Internazionale Ca' Foscari:

Academic Writing

Course for the students of the Collegio di Merito Ca' Foscari, school of excellence of the Accademia 5 h (since 2013-until 2021)

Scientific Activities Resume

The scientific production of the candidate can be resumed as follows:

- **95** original papers in peer reviewed international journals, **21** book chapters, since **2011** as corresponding author.

- *H index* is **36** (Scopus/WoS), H index (10 years) **20**, H index (15 years) **27**.

- About **3600** total citations (Scopus or ISI).

Prizes and Honors

- "2010 Young Scientist Prize" awarded by Università Ca' Foscari di Venezia, Oct. 22nd **2010**, Venezia (ITALY).

http://www.unive.it/nqcontent.cfm?a_id=80398

- "Premio Giangiacomo Drago e Fausta Rivera" awarded by "Istituto Lombardo, Accademia di Scienze e Lettere, for research activity in the field of " Chemistry and life's quality". February, 17th **2012**, Milano (ITALY). <http://www.istitutolombardo.it/pdf/premiati2012.pdf>

- "Gian Paolo Chiusoli Medal" awarded by the Division of Industrial Chemistry, Società Chimica Italiana, September 15th **2015**, Salerno (ITALY); http://www.unive.it/nqcontent.cfm?a_id=194938

- **The paper** La Sorella G., Strukul G., Scarso* A, "Recent Advances in Catalysis in Micellar Media", *Green Chem.* **2015**, 17, 644-683 **was one of the most downloaded articles in Green Chemistry in 2015.** Please see the following link:
<http://pubs.rsc.org/en/journals/articlecollectionlanding?sercode=gc&themeid=bf78857-2401-4204-834d-f3736025d2ed>

Publons Top Peer Review Awards 2017, **top 1%** of peer reviewers in Chemistry.
Publons Top Peer Review Awards 2018, **top 1%** of peer reviewers in Chemistry.
Publons Top Peer Review Awards 2019, **top 1%** of peer reviewers in Chemistry.
Publons Top Peer Review Awards 2020, **top 1%** of peer reviewers in Chemistry.
Publons Top Peer Review Awards 2021, **top 1%** of peer reviewers in Chemistry.
Publons Top Peer Review Awards 2022, **top 1%** of peer reviewers in Chemistry.
Publons Top Peer Review Awards 2023, **top 1%** of peer reviewers in Chemistry.

Member

- Member of the Società Chimica Italiana 2005-2020
- Member of the American Chemical Society since 2013-2016
- Member of the Royal Society of Chemistry since 2016-2018
- Member of the Italian Society for Neutron Scattering (SISN) 2020

Member of the board of International peer-reviewed Journals

- (2013-2015) Associate Editor of the Open Access peer-reviewed journal **SUPRAMOLECULAR CATALYSIS** (ISSN: 2084-7246) published by De-Gruyter Open (editor Prof. U.H. Brinker, University of Vienna and The State University of New York at Bringhamton. The journal publishes original research articles that incorporates the ideas of supramolecular chemistry within the field of catalysis. Systems of particular interest will involve supramolecular interactions as the key interactions between catalyst and substrate.
<http://www.degruyter.com/view/j/supcat>

- **Associate Editor of RSC Advances** multidisciplinary journal of the Royal Society of Chemistry from March 2016-April 2018.
<http://pubs.rsc.org/en/journals/journalissues/ra>.
<http://www.rsc.org/journals-books-databases/about-journals/rsc-advances/organic-ae-category/>
<http://www.rsc.org/journals-books-databases/about-journals/rsc-advances/catalysis-ae-category/>
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2017 Topic editor with prof. P. Ballester of the *Supramolecular Aspects in catalysis* for the international journal *Frontiers in Chemistry*, achieving over **20000 views** and **3600 downloads** by end of 2020. <https://www.frontiersin.org/research-topics/7174/supramolecular-aspects-in-catalysis>

2020 Topic editor with prof. P. Ballester of the *Supramolecular Chemistry meets Catalysis* for the international journal *Frontiers in Chemistry*,
: <https://www.frontiersin.org/research-topics/17411>

Since Spring **2020**, Member of the Editorial Board of the OA international journal **Organics** from MDPI <https://www.mdpi.com/journal/organics>;
<https://www.mdpi.com/journal/organics/editors>

2021, Guest editor for H2Open-A Special Collection Celebrating Water and its Connecting Powers, ChemistryOpen, Wiley.

2021 October, Associate Editor of *Frontiers in Chemistry*, section Supramolecular Chemistry.
<https://www.frontiersin.org/journals/chemistry/sections/supramolecular-chemistry>

Reviewer activity for the following international journals

- 1) Angewandte Chemie International Edition English
- 2) Journal of the American Chemical Society
- 3) Accounts of Chemical Research
- 4) Chemical Communication
- 5) Advanced Synthesis and Catalysis
- 6) ChemCatChem
- 7) Israel Journal of Chemistry
- 8) Inorganica Chimica Acta
- 9) Central European Journal of Chemistry
- 10) Polyhedron
- 11) Chemical Papers
- 12) Journal of Molecular Liquids
- 13) Organic and Biological Chemistry

46 papers reviewed in **2016**, 63 in **2017**, 47 in **2018**, 55 in **2019**, 47 in **2020**, 54 in **2021**, 42 in **2022**, 31 in **2023** (source, Publons).
<https://publons.com/researcher/745290/alessandro-scarso/peer-review/>

Official reviewer for the Royal Society of Chemistry since November **2019**.

Reviewer of the following national and international agencies

- 1) Reviewer for the Italian National VQR evaluation 2004-2010.

- 2) Reviewer for the Petroleum Research Fund of the American Chemical Society since 2009.
- 3) Reviewer for PRIN 2012
- 4) Reviewer for Futuro in Ricerca 2013
- 5) Reviewer for the Italian National VQR evaluation 2011-2014.
- 6) Reviewer for Università dell'Insubria of applicants for Assegno di Ricerca di Ateneo 2016.
- 7) Reviewer for grant application for the "Frontier Research in Chemistry Foundation" France, March 2017
- 8) Reviewer for PhD thesis from Universidad Rovira i Virgili 2017 and 2019
- 9) Reviewer for the PhD Prize in Chemistry from Università di Padova 2018.
- 10) Reviewer for grant proposal to the American Chemical Society Petroleum Research Foundation (August 2018).
- 11) Reviewer for grant proposal to the National Science Center of Poland (June 2018).
- 12) Reviewer for grant proposal to Regione Autonoma Sardegna (April 2018).
- 13) Reviewer for the Gutenberg Chair 2019, for the Alsace region.

National Collaborations

- Prof. O. Bortolini Prof. A. Massi, Università di Ferrara, synthesis of new bisphosphonates as potential drug candidates and use of carbene catalysts and reagents in supramolecular nanoreactors.
- Dr. D. Granchi, Istituto Ortopedico Rizzoli, Bologna, evaluation of the biological activity of new bisphosphonates for bone resorption diseases and bone tumor treatment.
- Prof. A. Bigi, Università di Bologna, interaction of bisphosphonates with hydroxyapatite.
- Dr. M.T. Valenti, Università di Verona, Development of fluorescent bisphosphonates to track the action of the anti-resorption drugs.

International Collaborations

- DSM research, Dr. L. Lefort, The Netherlands, employment of chiral phosphoramidate ligands in asymmetric oxidation reactions.
- Prof. Rebek Jr., The Scripps Research Institute, La Jolla, (CA) USA, supramolecular catalysis within self-assembled capsules.
- Prof. D. Wass, School of Chemistry, University of Bristol, employment of PNP ligands for homogeneous catalysis in micellar media, development of photocromic ligands for catalysis.
- Prof. J. Reek, University of Amsterdam, development of encapsulated homogeneous metal catalysts for selective catalysis.
- Prof. P. Ballester, ICIQ Institut Català, d'Investigació Química, Supramolecular catalysis with hexameric self-assembled capsule.
- Prof. C. Schalley, Universität Freie Berlin, development of supramolecular systems based on pillar[5] and pillar[6] arenes.

Participation to Funded Projects

-PRIN 2003, "Development of new recyclable catalysts for oxidation processes with hydrogen peroxide" "Sviluppo di nuovi catalizzatori riciclabili per processi di ossidazione con acqua ossigenata", 6 months

-EU 5th FP, Thematic programme: Competitive and Sustainable Growth. "Novel Eco-Efficient Oxidation Processes Based on H₂O₂ Synthesis on Catalytic Membranes" (2002-2005)

-PRIN 2008, "New catalytic strategies for the synthesis of bisphosphonate based bioactive molecules for the therapy and diagnosis of osteolytic diseases", 10 months.

- Cariparo Project **2019**, Selective Catalysis in Supramolecular Confined Spaces, SELECT, 36 months.

-PRIN 2020 CAGED project, 24 months

Organization of Congresses

1) Member of the local organizing committee of the XXXVII Convegno della Divisione di Chimica Organica della Società Chimica Italiana, 18th-22th September **2016** (Mestre Venezia, I).

<http://virgo.unive.it/cdco2016/Organizzazione.html>

2) Chairperson for **TOPIC 3: Addressing catalysis complexity** during the International Congress Europacat2017, 27th-31st August **2017** (Florence, I)

<http://www.europacat2017.eu/topics.html>

3) Organizer of the 9th International Symposium on Nano & Supramolecular Chemistry (9th ISNSC) 4th-7th September **2017**, (Naples-I)

http://www.chimind.it/index.php?option=com_content&view=article&layout=edit&id=136

Full List of Publications

Publications in International Peer Reviewed Journals

- 1) G. Licini, M. Gobbo, A. Scarso, P. Scrimin*, S. Valente "Allosteric Regulation of a HIV-1 Protease Inhibitor by Zn(II) Ions", *Angew. Chem. Int. Ed.*, **2001**, 40, 20, 3899-3902.
- 2) Scarso, A., Scheffer, U., Goebel, M., Broxterman, Q.B., Kaptein, B., Formaggio, F., Toniolo, C., Scrimin*, P. "A Peptide Template as an Allosteric Supramolecular Catalyst for the Cleavage of Phosphate Esters" *Proc. Natl. Acad. Sci. USA*, **2002**, 99, 8, 5144-5149.
- 3) Scarso, A., Shivanyuk, A., Hayashida, O., Rebek*, J.Jr. "Asymmetric Environments in Encapsulation Complexes" *J. Am. Chem. Soc.*, **2003**, 125, 6239-6243.
- 4) Shivanyuk, A., Scarso, A., Rebek*, J.Jr. "Coencapsulation of Large and Small Hydrocarbons" *Chem. Commun.*, **2003**, 1230-1231.
- 5) Scarso, A., Trembleau, L., Rebek*, J. Jr. "Encapsulation Induces Helical Folding of Alkanes" *Angew. Chem. Int. Ed.* **2003**, 42, 5499 –5502.
- 6) Scarso, A., Shivanyuk, A., Rebek*, J. Jr. "Individual Solvent/Solute Interactions through Social Isomerism" *J. Am. Chem. Soc.* **2003**, 125, 13981-13983.
- 7) Rechavi, D., Scarso, A., Rebek*, J., Jr. "Isotopomer Encapsulation in a Cylindrical Molecular Capsule: A Probe for Understanding Noncovalent Isotope Effects on a Molecular Level" *J. Am. Chem. Soc.* **2004**, 126, 7738-7739.
- 8) Scarso, A., Rebek*, J., Jr. "Single Molecule Solvation and Its Effects on Tautomeric Equilibria in a Self-Assembled Capsule" *J. Am. Chem. Soc.* **2004**, 126, 8956-8960.
- 9) Zhao, Y.-L., Houk, K. N., Rechavi, D., Scarso, A., Rebek*, J., Jr. "Equilibrium Isotope Effects as a Probe of Nonbonding Attractions" *J. Am. Chem. Soc.* **2004**, 126, 11428-11429.
- 10) Scarso, A., Onagi, H., Rebek*, J., Jr. "Mechanically Regulated Rotation of a Guest in a Nanoscale Host" *J. Am. Chem. Soc.* **2004**, 126, 12728-12729.
- 11) Scarso, A., Trembleau, L., Rebek*, J., Jr. "Helical Folding of Alkanes in a Self-Assembled, Cylindrical Capsule" *J. Am. Chem. Soc.* **2004**, 126, 13512-13518. (79 citations, 47 without self-citation)
- 12) Michelin*, R. A., Pizzo, E., Scarso, A., Sgarbossa, P., Strukul*, G., Tassan, A. "Baeyer-Villiger Oxidation of Ketones Catalyzed by Platinum(II) Lewis Acid Complexes Containing Coordinated Electron-poor Fluorinated Diphosphines" *Organometallics* **2005**, 24, 1012-1017.
- 13) Conte* V., Floris B., Galloni P., Mirruzzo V., Scarso A., Sordi D., Strukul* G. "The Pt(II)-catalyzed Baeyer–Villiger oxidation of cyclohexanone with H₂O₂ in ionic liquids" *Green Chem.* **2005**, 5, 262-266.
- 14) Scarso A., Strukul* G. "Asymmetric Sulfoxidation of Thioethers with Hydrogen Peroxide in Water Mediated by Platinum Chiral Catalyst" *Adv. Synth. Catal.* **2005**, 347, 1227-1234.
- 15) Pizzo, E., Sgarbossa, P., Scarso, A., Michelin*, R.A., Strukul* G. "Second Generation of Electron Poor Pt(II) Complexes as Efficient Epoxidation Catalysts for Terminal Alkenes with Hydrogen Peroxide" *Organometallics*, **2006**, 25, 3056-3062.
- 16) Sgarbossa, P., Pizzo, E., Scarso, A., Mazzega Sbovata, S., Michelin*, R.A., Mozzon, M., Strukul* G., Benetollo F. "Bis-phosphine monoxide Platinum(II) and Palladium(II) Cationic

Complexes as Lewis Acid Catalysts in Diels-Alder and Sulfoxidation Reactions" *J. Organom. Chem.* **2006**, 691, 3659-3666.

17) Colladon, M., Scarso, A., Sgarbossa, P., Michelin, R.A., Strukul*, G. "Asymmetric epoxidation of terminal alkenes with hydrogen peroxide catalyzed by pentafluorophenyl Pt(II) complexes", *J. Am. Chem. Soc.* **2006**, 128, 14006-14007.

18) Colladon M. , Scarso, A., Strukul* G. "Tailoring Pt(II) Chiral Catalyst Design for Asymmetric Baeyer-Villiger Oxidation of Cyclic Ketones with Hydrogen Peroxide" *Synlett* **2006**, 20, 3515-3520.

19) Sgarbossa, P., Scarso, A., Pizzo, E., Mazzega Sbovata, S., Tassan, A., Michelin, R.A., Strukul*, G. "Synthesis, Characterization and Baeyer-Villiger Oxidation of Ketones by the Cationic Platinum(II) Complex $[P(\mu\text{-OH})(\text{Pom-Pom})]_2[\text{BF}_4]_2$ [Pom-Pom = $(\text{OMe})_2\text{PCH}_2\text{CH}_2\text{P}(\text{OMe})_2$]" *J. Mol. Cat. A*, **2007**, 261, 202-206.

20) Scarso, A., Zaupa, G., Bodar Houillon, F., Prins, L.J., Scrimin* P. "Tripodal, Cooperative, and Allosteric Transphosphorylation Metallocatalysts" *J. Org. Chem.* **2007**, 72, 376-385.

21) Colladon M. , Scarso, A., Strukul* G. "Towards a Greener Epoxidation Method: Use of Water-Surfactant Media and Catalyst Recycling in the Platinum-Catalyzed Asymmetric Epoxidation of Terminal Alkenes with Hydrogen Peroxide " *Adv. Synth. Catal.* **2007**, 349, 797-801.

22) Colladon, M., Scarso, A., Sgarbossa, P., Michelin, R.A., Strukul*, G. "Regiospecificity and Diastereoselectivity of Pt(II) Mediated "Green" Catalytic Epoxidation of Terminal Alkenes with Hydrogen Peroxide: Mechanistic Insight into its Peculiar Substrate Selectivity" *J. Am. Chem. Soc.* **2007**, 129, 7680-7689.

23) Sgarbossa, P., Scarso, A., Michelin*, R.A., Strukul*, G. "Steric Effect in the Baeyer-Villiger Oxidation of Ketones Catalyzed by Platinum(II) Lewis Acid Complexes with Coordinated Electron-donor Alkyl Diphosphines" *Organometallics* **2007**, 26, 2714-2719.

24) Scarso*, A., Pellizzaro, L., De Lucchi, O., Linden, A., Fabris*, F. "Gas Hosting in Enantiopure Self-Assembled Oximes" *Angew. Chem. Int. Ed.* **2007**, 46, 4972-4975.

25) Sgarbossa, P., Fátima, M., Guedes da Silva, C., Scarso, A., Michelin*, R.A., Pombeiro*, A.J.L. "Lewis Acidity of Platinum(II)-Based Baeyer-Villiger Catalysts: An Electrochemical Approach" *Inorg. Chim. ACTA*, **2008**, 361, 3247-3253.

26) Greggio, G., Sgarbossa, P., Scarso, A., Michelin*, R.A., Strukul*, G., "Platinum(II) Diphosphine Complexes as Catalysts for the Baeyer-Villiger Oxidation of Ketones: Is It Possible to Increase the Concentration of the Active Species?" *Inorg. Chim. ACTA*, **2008**, 361, 3230-3236.

27) Colladon, M., Scarso, A., Strukul*, G., "Mild Catalytic Oxidation of Secondary and Tertiary Amines to Nitrones and N-Oxides with H_2O_2 Mediated by Pt(II) Catalysts" *Green Chem.*, **2008**, 10, 793 - 798.

28) A. Cavarzan, G. Bianchini, P. Sgarbossa, L. Lefort, S. Gladiali, A. Scarso*, G. Strukul*, "Asymmetric Green Catalytic Baeyer-Villiger Oxidation with Hydrogen Peroxide in Water by Pt^{II} Catalysts: Supramolecular Control of the Enantioselectivity" *Chem. Eur. J.*, **2009**, 15, 7930-7939.

29) S. Tartaggia, A. Scarso*, P. Padovan, O De Lucchi, F. Fabris*, "Gases as Guests in Benzocyclootrimer Cage Hosts" *Org. Lett.*, **2009**, 11, 3926-3929.

30) G. Bianchini, A. Cavarzan, A. Scarso*, G. Strukul*, "Asymmetric Baeyer-Villiger Oxidation with $\text{Co}(\text{Salen})$ and H_2O_2 in Water: Striking Supramolecular Micelles Effect on Catalysis", *Green Chem.* **2009**, 10, 1517-1520.

- 31) Sgarbossa, P., Scarso*, A., Michelin, R.A., Strukul*, G. "The Baeyer–Villiger oxidation of ketones: A paradigm for the role of soft Lewis acidity in homogeneous catalysis" *Coord. Chem. Rev.*, **2010**, 254, 646-660.
- 32) Scarso*, A., Colladon, M., Sgarbossa, P., Santo, C., Michelin, R.A., Strukul*, G. "Highly Active and Selective Platinum(II)-Catalyzed Isomerization of Allylbenzenes: Efficient Access to (*E*)-Anethole and Other Fragrances via Unusual Agostic Intermediates" *Organometallics*, **2010**, 29, 1487–1497.
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- 8) XXIII° Congresso Nazionale Società Chimica Italiana, Sorrento (NA) July, 5-10 **2009**, "Green Catalytic Asymmetric Oxidations in Water: Supramolecular Micellar Effects" A. Scarso.
- 9) 17th International Symposium on Homogeneous Catalysis (ISHC-17), Poznań, (Poland) July, 4th-9th **2010**, "Green Catalytic Asymmetric Baeyer-Villiger Oxidations in Water: Supramolecular Micellar Effects" A. Scarso.
- 10) XXIV° Congresso Nazionale Società Chimica Italiana, Lecce September, 11-16 **2011**, "Supramolecular Control on Product and Substrate Selectivity via Encapsulation within a Hydrogen Bonded Self-assembled Hexameric Capsule" A. Scarso.
- 11) XVIII° Congresso Nazionale Divisione di Chimica Industriale, Società Chimica Italiana, Firenze, June, 11-14 **2012**, "Platinum(II) Diphosphinamine Complexes for the Efficient Hydration of Alkynes in Micellar Media " A. Scarso, F. Trentin, A.M. Chapman, P. Sgarbossa, R.A. Michelin, G. Strukul, D.F. Wass.
- 12) XVII National Congress of Catalysis GIC 2013 and XI National Congress of Zeolites Science and Technology, Riccione, September 15th-18th **2013**, "Environmentally Benign Micellar Metal Catalysis in Water", A. Scarso, **KEYNOTE LECTURE**.
- 13) XI CONGRESSO NAZIONALE DI CHIMICA SUPRAMOLECOLARE, Società Chimica Italiana, Padova, September, 24th-27th **2013**, "Encapsulation-Driven Supramolecular Catalysis", A. Scarso, **KEYNOTE LECTURE**.
- 14) CONGRESSO NAZIONALE della SOCIETA' CHIMICA ITALIANA, Rende (Cs), September, 7th-12th **2014**, "Supramolecular Approaches to Substrate Selectivity in Homogeneous Catalysis", **A. Scarso**.
- 15) XIX Congresso Nazionale della Divisione di Chimica Industriale, Società Chimica Italiana, Salerno 14-16 settembre **2015** "Hugging Catalysts... If They Do Not Mind", A.Scarso. Awarded with the **Chiusoli Medal KEYNOTE LECTURE**.
- 16) 9th ISNSC (International Symposium Nanocatalysis and Supramolecular Chemistry) Napoli September 7-10, **2017** Supramolecular Approaches to Homogeneous Catalysis, **INVITED LECTURE**.
- 17) SISOC XII (Spanish Italian Symposium on Organic Chemistry), Ferrara July 2nd-4th **2018**, Supramolecular Approaches to Homogeneous Catalysis, **INVITED LECTURE**.
- 18) Seminar "Catalysis in Confined Spaces" at Fabbrica Italiana Sintetici FIS Montecchio Maggiore (VI) April 4th **2018**, **INVITED LECTURE**.

Other Academic and Scientific Activities

Member in Commissions

- Member of the selection committee for the doctorate admission UniVe-UniTs XXX cycle September 2014 and XXXIII cycle 2017.
- Member of the selection committee (responsible for the scientific area) for the admission to the Collegio Internazionale Ca' Foscari (since 2014).

All the contents and declarations of the present CV corresponds to truth in agreement with art. 46 and 47 of the Italian D.P.R. 445/2000.

Prof. Alessandro Scarso

Curriculum Vitae prof. Fabiano Visentin

Laurea in Chimica Industriale conseguita presso la Facoltà di Chimica Industriale dell'Università degli Studi Di Venezia il 19/12/1990 con voti 110/110 e lode (tesi sperimentale dal titolo: "Assorbimento selettivo di Palladio mediante una resina chelante contenente 2,6-bis(metilmetil)piridina come gruppo funzionale" - relatore Prof. G.Marangoni)

Abilitato all'esercizio della professione di Chimico

Dottorato in Scienze Chimiche (VII Ciclo, periodo 1991-1994; tesi sperimentale dal titolo: "Reazione di Leganti coordinati in complessi organometallici di Pd (II) e Pt(II)" - relatore Prof. P. Uguagliati.

Vincitore di Borsa di Studio C.N.R. (bando n. 201.0322) con fruizione nel periodo 1/7/1995 - 31/03/1996 presso il Centro di Chimica e Tecnologia dei Composti Metallorganici degli Elementi di Transizione del C.N. R. di Padova sotto la supervisione dei proff. R. Bertani e R.A. Michelin. Il tema di ricerca sviluppato in suddetto periodo e' stato incentrato sulla reattività di intermedi reattivi carbenici di metalli di transizione a struttura elettronica d¹⁰.

Vincitore di Concorso per il gruppo disciplinare C03X Chimica Generale ed Inorganica, e' in servizio in qualità di ricercatore universitario dal 1/4/1996 presso la Facoltà di Scienze MM. FF. NN. dell'Università degli Studi di Venezia, corso di Laurea in Chimica Industriale, Dipartimento di Chimica.

Ha trascorso un anno di congedo dall'attività di didattica (2004) all'ETH di Zurigo presso il gruppo del prof. A. Togni, in qualità di "visiting researcher".

Dal 2008 è professore associato di Chimica Generale ed Inorganica presso il Dipartimento prima di Chimica e quindi di Scienze Molecolari e Nanosistemi dell'Università Ca' Foscari di Venezia.

Attualmente, è titolare presso l'Università Ca' Foscari dei corsi di:

- 1) "Chimica Generale e Laboratorio" del Corso di Laurea triennale di Chimica e Tecnologie sostenibili.
- 2) "Chimica Metallorganica" del Corso di Laurea magistrale di Chimica e Tecnologie Sostenibili
- 3) "Chimica Generale ed Inorganica con Laboratorio" del Corso di Laurea triennale di Tecnologie Chimiche per la Conservazione ed il Restauro

L'attività scientifica del dott. Fabiano Visentin e' documentata da 120 pubblicazioni su riviste internazionali con sistema di referees. Essa ha riguardato essenzialmente la sintesi e la reattività di nuovi complessi organometallici di Palladio e Platino, nonché di alcuni composti di coordinazione di Platino ed Oro. Tali reazioni, di notevole interesse corrente per la sintesi organica promossa e catalizzata da metalli di transizione, sono state studiate dal punto di vista cinetico, meccanicistico e flussionale mediante tecniche strumentali (spettrofotometria UV-Vis, IR, spettrometria NMR, metodi conduttometrici e potenziometrici), implementate da efficienti metodi matematico-statistici computerizzati di

analisi dei dati numerici sperimentali (Chemiometria organometallica). I meccanismi di reazione evidenziati hanno permesso di elucidare i fattori elettronici e sterici che influenzano la reattività dei complessi esaminati, nonché la regio- e stereo selettività dei processi di formazione dei nuovi legami Carbonio-Carbonio e Carbonio-Azoto.

Le indagini cinetiche sui meccanismi di reazione sono state supportate, laddove opportuno, da misure termodinamiche di costanti di equilibrio per una completa comprensione del quadro generale di reattività dei complessi in esame.

Negli ultimi anni l'interesse è stato spostato prevalentemente sulla sintesi di composti organometallici di palladio dotati di specifiche proprietà biologiche soprattutto di tipo antitumorale.

Alcuni dei temi di ricerca sono stati sviluppati in collaborazione con le seguenti istituzioni nazionali ed internazionali.

- Department of Chemistry and Applied Biosciences ETH Zurich
- Van't Hoff Institute for Molecular Sciences Amsterdam
- Chemistry Dept., University of Florence
- Chemistry Dept., University of Rome II
- Chemical Pharmaceutical Technologies Dept., University of Padua
- Center of Chemistry and Technology of Organotransition Metal Compounds-CNR-Padua
- Chemistry Dept. "G. Camiciari", University of Bologna
- Department of Life Science and Biotechnologies, University of Ferrara.
- Oncological Referral Centre (CRO) of Aviano

Nella stragrande maggioranza di lavori riportati nell'elenco che segue, è stato fatto ampio uso della Spettroscopia NMR in svariate sue declinazioni, al fine di accertare l'identità dei composti sintetizzati, ricavarne informazioni di strutturale, studiarne il comportamento flussionale e monitorarne la reattività

Elenco pubblicazioni.

1) G. Chessa, G. Marangoni, B. Pitteri and **F. Visentin**

Matrix effects on palladium(II) chelation by macroporous polystyrene resins with 2,6-Bis(methylthiomethyl)pyridine groups
Reactive Polymers (1991) **18**, 7

2) L. Canovese, G. Chessa, G. Marangoni, B. Pitteri, P. Uguagliati and **F. Visentin**

Binding Ability of 2,6-Bis(methylthiomethyl)pyridine with Proton, Palladium (II) and Copper(II) in Aqueous Solutions
Inorg. Chim. Acta (1991) **186**, 79

3) B. Crociani, S. Antonaroli, F. Di Bianca, L. Canovese, **F. Visentin**, P. Uguagliati

Mechanism of Nucleophilic Attack by Diethylamine on Cationic Palladium (II) Allyl Complexes containing α -Diimine Ligands"
J. Chem. Soc. Dalton Trans. (1994), 1145

4) L. Canovese, **F. Visentin**, P. Uguagliati, F. Di Bianca, S. Antonaroli and B. Crociani
Equilibrium Studies of α -Diimine displacement in Cationic Allyl Palladium(II)

Complexes by Monodentate N-Donor Ligands and the Mechanism of Allyl Amination by Triethylamine and Pyridine"

J.Chem. Soc. Dalton Trans (1994),3113

5)L.Canovese,L. Cattalini, **F.Visentin**,P. Uguagliati and L. Gemelli
Equilibrium and Kinetic.Studies on the Displacement of Pyridine by Chloride Ion in 2,6-Bis(methylthiomethyl)pyridine Palladium (II) Perchlorate"

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6)L. Canovese,P.Uguagliati, **F. Visentin**, B. Crociani and F. Di Bianca
Solvent and Temperature Effects in the Mechanism of Allyl Amination of α -Diimine Complexes

$[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)(\text{C}_5\text{H}_5\text{N-2-CH=NC}_6\text{H}_4\text{-OMe-4})]^+$ by Piperidine and Morpholine"

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7)L.Canovese ,**F.Visentin**,P.Uguagliati,F.Di Bianca,A.Fontana and B.Crociani.
Mechanism of Oxidative Allyl Transfer from Allylic Ammonium Cations to Palladium(0) α -Diimine Complexes.

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8)L.Canovese,**F.Visentin**,P.Uguagliati,and B.Crociani.
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9)L.Canovese,**F.Visentin**,P.Uguagliati,F.Di Bianca,A.Fontana,and B.Crociani.
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10)L.Canovese,**F.Visentin**,P.Uguagliati,B.Crociani,and F.Di Bianca.
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11)L.Canovese,**F.Visentin**,P.Uguagliati,and B.Crociani.
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12)B.Pitteri,G.Marangoni,**F.Visentin**,L.Cattalini,T.Bobbo.
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Equilibrium and kinetic studies of (2,2':6',2''-terpyridine)gold(III) complexes. Preparation and crystal structure of [Au(terpy)(OH)[ClO₄]₂

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Solution behavior and X-ray structure of cationic allylpalladium (II) complexes with iminophosphine ligands. Kinetics and mechanism of allyl amination by secondary amines

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21) L.Canovese, **F.Visentin**, P.Uguagliati , G.Chessa

First synthesis of a Palladium(0) containing multimetallic system based on hemilabile pyridylthioether ligands

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J.Organomet.Chem. (2001), **622**,155
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Mechanism of the reaction of allyl amination of Pd(II) allyl complexes containing chelating pyridine chalcogen ligands. A surprisingly low influence of chalcogen atom.
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Tetrahedron (2001),**57**, 8719
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Catalytic transformation of diazo compounds promoted by platinum (0) and dicationic platinum(II) complexes
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J. Organomet. Chem. (2002), **650**, 43.
- 34) L. Canovese, **F. Visentin**, G. Chessa, C. Santo, P. Uguagliati, L. Maini, M. Polito
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J. Chem. Soc. Dalton Trans. (2002) 3696
- 35) L. Canovese, G. Chessa, C. Santo, **F. Visentin**, P. Uguagliati
Pd(II) and Pd(0) complexes of pyridylthioether based metallodendrimers.
Synthesis, characterisation and mechanistic study of the influence of wedge size on allyl amination.
Organometallics (2002), **21**, 4342
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J. Mol. Catal. **204-205** (2003) 295
- 38) L. Canovese, **F. Visentin**, G. Chessa, C. Santo, P. Uguagliati, G. Bandoli and L. Maini
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- 39) B. Crociani, S. Antonaroli, L. Canovese, **F. Visentin**, P. Uguagliati
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Eur. J. Inorg. Chem. (2004), 732
- 40) F. Bolletta, A. Garelli, M. Montalti, L. Prodi, S. Romano, N. Zaccheroni,
L. Canovese, G. Chessa, C. Santo, **F. Visentin**
Synthesis, Photophysical Characterisation and Metal Ion Binding Properties of New Ligands Containing Anthracene Chromophores.
Inorg. Chim. Acta (2004) **357**, 4078.
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Coord. Chem. Rev. (2004), **248**, 945.
- 42) G. Chessa, L. Canovese, **F. Visentin**, C. Santo, R. Seraglia
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Complexes Bearing Pyridylthioethers as Ancillary Ligands. The Influence of Ligand
Substituents at Pyridine and Sulphur on the Rate of Insertion.
Organometallics (2005), **24**, 3297
- 44) L. Canovese, **F. Visentin**, G. Chessa, C. Santo, P. Uguagliati
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Incorporating a $\text{Fe}_2(\text{CO})_6$ Cluster core as Ligand.
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- 45) L. Canovese, **F. Visentin**, G. Chessa, P. Uguagliati, C. Levi, A. Dolmella
The Attack of Substituted Alkynes on Olefin Pd(0) Derivatives of Pyridylthioethers. The first
Kinetic Study on the mechanism of Formation of Palladacyclopentadiene Complexes.
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- 46) L. Canovese, **F. Visentin**, G. Chessa, C. Santo, C. Levi, P. Uguagliati
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production of the highly symmetric hexamethyl mellitate species under mild conditions at
low alkyne/complex molar ratios.
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on the reactivity of substituted alkynes toward palladium(0) complexes bearing potentially
terdentate nitrogen-sulfur-nitrogen or nitrogen-nitrogen-nitrogen ligands: a kinetic and
structural study.
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use as Precursors in the Synthesis of Fluoroanthene-like Cycles under Mild Conditions. A
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- 50) L. Canovese, **F. Visentin**, C. Santo.
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palladacyclopentadienyl derivatives with tetracyanoethylene.
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