Dr. Tommaso Tabanelli

Ph.D. in Chemistry
Date of birth: 30/07/1988
Sex: male
Nationality: Italian

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English level B2+

ABILITAZIONE SCIENTIFICA NAZIONALE (ASN):

✓ SETTORE CONCORSUALE 03/C2, CHIMICA INDUSTRIALE, II FASCIA. (from 02/02/2022 to 02/02/2031) (art. 16, comma 1, legge 240/10)

MAIN RESEARCH TOPICS:

Bio-based building blocks valorisation; industrial processes development; green chemistry, green engineering; catalyst synthesis and characterisation; continuous flow processes, selective oxidation, hydrogenation, H-transfer.

EDUCATION AND TRAINING

1st January 2013 - 31st December 2015

Ph.D. grant in Chemistry (EQF:8)

Institution: Alma Mater Studiorum, University of Bologna.

Tutor: Prof. Fabrizio Cavani.

Research project regarding the investigation of sustainable catalytic processes for the synthesis and use of organic carbonates for the production of fine chemicals. (Project PRIN 2010-2011 n:2010A2FSS9). Title: "Sustainable catalytic processes for the synthesis and use of organic carbonates".

Discussion date: 26/04/2016. Committee judgment: **Excellent**

Ph.D. foreign period experience: 3 months at the School of Chemistry, Nottingham University (UK).

Tutor: Prof. Sir Martyn Poliakoff.

Project: Photochemical reaction in high-pressure continuous-flow systems in supercritical CO_2 and dimethyl carbonate.

11th October 2010 - 20th July 2012

Master degree in Industrial Chemistry

110/110 cum laude (EQF:7)

Institution: Alma Mater Studiorum, University of Bologna.

Tutor: Prof. Fabrizio Cavani.

Thesis: "Use of organic carbonates as green reagents for the synthesis of phenolic derivates"

10th September 2007 - 15th October 2010

Bachelor degree in Industrial Chemistry

110/110 cum laude (EQF:6)

Institution: Alma Mater Studiorum, University of Bologna and "ISOF" group of CNR of Bologna.

Tutor: Prof. Loris Giorgini.

Thesis: "Raft synthesis of block co-polymers and post polymerisation processes".

July 2013: **Italian professional state certification exam (abilitazione alla professione di chimico, voto 180/200)**

July 2007: **High school leaving qualification in scientific and technological studies, 100/100 cum laude**

Institution: Liceo scientifico statale Gregorio Ricci Curbastro di Lugo (Ravenna, Italy), indirizzo "scientifico-tecnologico".

WORK EXPERIENCES – RESEARCH GRANTS

15th September 2024 – Ongoing

Associate professor (PA) of Industrial Chemistry (CHEM-04/A)

Research Topic: "Catalysis for a sustainable industrial chemistry".
Development of innovative catalytic processes for the synthesis of chemicals following the principles of Green Chemistry.
Teaching activity:
Course "Fundamental of Industrial Chemistry" (Module 2), Bachelor Degree in Industrial Chemistry, given in Italian;
Course "Fundamentals of Industrial Chemistry and Polymers" (Module 1, international Master Degree in Advanced Spectrometry in Chemistry), given in English.
Course "Sustainable Industrial Chemistry and Polymers" (Module 1, international Master Degree in Advanced Spectrometry in Chemistry), given in English.
Course "Chimica e Tecnologia dei Materiali Catalitici" (Bachelor Degree in Industrial Chemistry, Faenza), given in Italian.

Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna.
Business or sector: R&D and Education; Tutor: Prof. Fabrizio Cavani, University of Bologna.

15th September 2021 – 14th September 2024

RTD-B grant: Italian senior researcher, three-years grant

Research Topic: "Catalysis for a sustainable industrial chemistry".
Development of innovative catalytic processes for the synthesis of chemicals following the principles of Green Chemistry.
Teaching activity:
Course "Fundamental of Industrial Chemistry" (Module 2), Bachelor Degree in Industrial Chemistry, given in Italian;
Course "Fundamentals of Industrial Chemistry and Polymers" (Module 1, international Master Degree in Advanced Spectrometry in Chemistry), given in English.
Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna.
Business or sector: R&D and Education; Tutor: Prof. Fabrizio Cavani, University of Bologna.

1st March 2019 – 14th September 2021

RTD-A grant: Italian young researcher, three-years grant

Research Topic: Development of innovative catalytic processes for the synthesis of chemicals following the principles of Green Chemistry.
Teaching activity:
Course "Fundamental of Industrial Chemistry" (Module 2), Bachelor Degree in Industrial Chemistry, given in Italian;
Course "Sustainable Industrial Chemistry and Polymers" (international Master Degree in Advanced Spectrometry in Chemistry), given in English.
Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna.
Business or sector: R&D and Education; Tutor: Prof. Fabrizio Cavani, University of Bologna.

1st January 2018 – 28th February 2019

Post-doc research grant, "First2Run" FLAGSHIP European project, Horizon 2020 (BBI-JU; Call: H2020-BBI-PPP-2014-1).

Topic: Investigation of innovative catalytic processes for the synthesis of biopolymers from vegetable oils. In particular, investigating the oxidative cleavage of unsaturated fatty acids using oxygen or air as oxidants. Synthesis, development, characterisation of heterogeneous catalytic systems, in collaboration with Novamont S.p.A.
Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna.
Business or sector: R&D; Tutor: Prof. Fabrizio Cavani, University of Bologna.

1st January 2017 - 31st December 2017

One-year post-doc research grant involved in the "Valsovit" project (POR FESR Emilia-Romagna 2014-2020).

Topic: upgrading of bio-alcohol to chemicals. In particular, the valorisation of the mixtures of bio-ethanol derived from the wine industry, in collaboration with Caviro s.r.l.
Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna, in collaboration with Centro Interdipartimentale di Ricerca Industriale Energia e Ambiente (CIRI-EA)
Business or sector: R&D; Tutor: Prof. Fabrizio Cavani, University of Bologna

1st January 2016 - 31st December 2016

One year post-doc research grant involved in the "Alternative Biomass for Elastomers (ALBE)" project (Cluster on Green Chemistry, SPRING).

Topic: development of sustainable catalytic processes for the production of butadiene from renewable sources, in particular Lebedev and dehydration reactions.
Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna, in collaboration with Versalis S.p.A.
Business or sector: R&D; Tutor: Prof. Fabrizio Cavani, University of Bologna

1st September 2012 - 31st December 2012

Three months of research grant in collaboration with Royal DSM

Topic: synthesis and characterisation of mixed oxides based heterogeneous catalysts (with both basic and redox properties) for the continuous-flow gas-phase phenol methylation with methanol (fixed bed reactor).
Institution: Industrial Chemistry Department "Toso Montanari", University of Bologna, in collaboration with Royal DSM.
Business or sector: R&D; Tutor: Prof. Fabrizio Cavani, University of Bologna

AWARDS, PRIZES AND COMPETITIONS

- ✓ Selected by the scientific and organising committee with the Young Talent Label at the 18th International Congress on Catalysis (ICC), July 14-19, 2024.
- ✓ Robert Karl Grasselli memorial award (2021 edition) for the results obtained in the field of heterogeneous catalysis applied in continuous-flow, gas-phase processes. Prize sponsored by the Gruppo Interdivisionale di Catalisi of the Italian Chemical Society (SCI). Venice, 10th September 2021, oral presentation.
- ✓ Galileo Galilei Giovani international award (2021 edition) for the results obtained in the field of Sustainable Chemistry and Environmental Science, sponsored by Rotary Association (District 2072) in collaboration with Fondazione Premio Galileo Galilei.
- ✓ Best Ph.D Thesis award (2017 edition) in Industrial Chemistry, sponsored by the Industrial Chemistry Division of the Italian Chemical Society (SCI) at the XXVI conference of the Italian Chemical Society at Paestum, 10th-15th September 2017. Oral presentation.

- ✓ Recognised as "Outstanding Reviewer for Green Chemistry in 2019" by the Royal Society of Chemistry. Green Chem., 2020,22, 2627-2627. https://doi.org/10.1039/D0GC90042G.
- ✓ CAS Registry Innovator Certificates for the publication of unregistered novel compounds.
- ✓ Selected as one of the twelve finalists of the Italian scientific dissemination contest "ChiMiCapisce", Rome, 8th of June 2018. Short oral presentation entitled: "Valorizzazione chimica di oli vegetali in intermedi per la chimica fine".

EDUCATIONAL ROLES and POSITIONS HELD IN UNIVERSITY

- May 2024 – April 2027: nominated **Research Delegate of the Industrial Chemistry Department** (Delegato alla ricerca del dipartimento di Chimica Industriale "Toso Montanari").
- April 2021 - April 2024: member of the Industrial Chemistry Department Council (Giunta di Dipartimento) as elected representative of the researchers.
- Since 2019: member of the "You Tube" group of the Industrial Chemistry Department "Toso Montanari".
- Since June 2024: partecipante al collegio docenti dottorato nazionale in CATALISI (ciclo XL).

Ownership of courses or teaching modules (Attività didattica, titolarità di corsi ed insegnamenti)

- A.A. 2024-2025 Course "Chimica E Tecnologia Dei Materiali Catalitici", Bachelor Degree in Chimica e tecnologie per l'ambiente e per i materiali (cod. 8515), University of Bologna (17524 - Chimica E Tecnologia Dei Materiali Catalitici, 4 CFU, 36 hours)
- A.A. 2024-2025 Course "Sustainable Industrial Chemistry and Polymers", international Master Degree in Advanced Spectrometry in Chemistry, Curriculum of the Master Degree in Industrial Chemistry, at the Industrial Chemistry Department "Toso Montanari", University of Bologna (**79085 - Sustainable industrial chemistry and polymers, Cds 0884, 2.5 CFU, 22 hours**); language: English.
- A.A. 2019-2020; 2020-2021; 2021-2022; 2022-2023; 2023-2024: Course "Fundamental of Industrial Chemistry (Module 2)", Bachelor Degree in Industrial Chemistry at the Industrial Chemistry Department "Toso Montanari", University of Bologna (**66693 - Fondamenti di chimica industriale con laboratorio, Cds 8513, 3 CFU, 37 hours**); language: Italian. Student's satisfaction index %: 85.7 (AA 2019-2020), 89.5 (AA 2020-2021), 98.3 (AA 2021-2022), 97.8 (AA 2022-2023), 88.9 ((AA 2023-2024).
- A.A. 2021-2022; 2022-2023; 2023-2024: Course "**93772 - Fundamentals of industrial chemistry and polymers**", Module 1 – 2,5 CFU, 22 hours) international Master Degree in Advanced Spectrometry in Chemistry. Language: English. Student's satisfaction index %: n.a. (AA2021-2022), 83.3% (AA 2022-2023), ongoing (AA 2023-2024).
- A.A. 2019-2020 and A.A. 2020-2021: Course "Sustainable Industrial Chemistry and Polymers", international Master Degree in Advanced Spectrometry in Chemistry, Curriculum of the Master Degree in Industrial Chemistry, at the Industrial Chemistry Department "Toso Montanari", University of Bologna (**79085 - Sustainable industrial chemistry and polymers, Cds 0884, 2 CFU, 18 hours**); language: English. Student's satisfaction index %: 100 (AA 2019-2020), 100 (AA 2020-2021).

- Member of the **examination commission** for the following courses:
  66693 - Fondamenti di chimica industriale con laboratorio (Cds-8513);
  79085 - Sustainable industrial chemistry and polymers, 79083 ASC-11 (Cds-0884);
  93772 - Fundamentals of industrial chemistry and polymers ASC-11 (Cds-0884);
  66196 – Processi chimici a basso impatto ambientale M (Cds-0884);
  66185 – Altre conoscenze utili per l'inserimento nel mondo del lavoro (Cds-0884);

66352 – Sviluppo e gestione dei processi chimici industriali con laboratorio M (Cds-0884);
66178 – Chimica della catalisi M (Cds-0884)
79466 - Spectroscopy of condensed phases 79083 ASC-10 (Cds-0884);
79109 - X-ray techniques 79083 ASC-12 (Cds-0884);

- Member of the **examination commission for the final discussion of the following Ph.D Thesis:**
  -Alessandro Allegri; Anna Gagliardi; Filippo Valorosi; Martina Serafini; Riccardo Bacchiocchi; Debora Quadretti; Giulia Vigarani. Ph.D in Chemistry 35° cycle, Bologna, examination dates 6th April and 20th June 2023.
  -Roberto Calmanti (tutor prof. Alvise Perosa) and Andrea Morandini (tutor prof.ssa Valentina Beghetto); Università degli Studi di Trieste and Università Cà Foscari di Venezia, examination date 15th April 2021.

- Member of the **graduation commission for the "Laurea in Chimica industriale - cod. 8513"** for AA 2022-2023.
- Member of the **graduation commission for the "Laurea Magistrale in Chimica Industriale (Cds 0884)"** for the AA 2020-2021.

- Member of the **examination commission for the attribution of research grants (Assegni di Ricerca, Borse di Studio o Borse di Ricerca):**

- Protocollo num. 1150 Rep. 93 Fascicolo 9473815 del 17/04/2024, "Made in Italy Circolare e Sostenibile MICS: Sviluppo di processi catalitici innovativi finalizzati all'ottenimento di nuovi monomeri per il settore tessile o dell'arredamento" (18 months research grant)
- Protocollo num. 574 Rep. 54 Fascicolo 9349547 del 05/03/2024, "Conversione di CO_2 a fuel rinnovabili su sistemi a base di layered double hydroxides" (one year research grant).
- Rep. n. 313/2023 Prot. n. 3612 del 18/12/2023, "Green hydrogen from urea-rich wastewater using novel catalytic processes" (one year research grant).
- Protocollo num. 2980 Rep. 246 Fascicolo 9003157 del 07/11/2023, "Sviluppo di processi catalitici innovativi finalizzati al frazionamento ed alla valorizzazione di biomasse lignocellulosiche"(one year research grant)
- Rep. n. 197/2023 Prot. n. 2571 del 29/09/2023, "Sviluppo di processi catalitici innovativi finalizzati all'utilizzo di carbonati organici come reagenti alternativi" (one year post-doc grant)
- PROT. N. 344 DEL 22/06/2022 presso il centro di ricerca industriale FRAME: "Tecnologie con emissioni potenzialmente negative di CO_2 - mineralizzazione della CO_2 nei rifiuti" (one year post-doc grant).
- Protocollo num. 424 Rep. 34 Fascicolo 7090801 del 23/02/2022: "Circular Bioeconomy: European research development and promotion" (one year post-doc grant).
- Repertorio n. 86 prot. n. 569 del 18/12/2020 presso il centro di ricerca industriale frame entitled: "sviluppo di catalizzatori eterogenei ibridi polimero/ inorganico per la valorizzazione di biomasse" (one year post-doc grant).
- Protocollo num. 1890 Rep. 109 Fascicolo 6713148 del 23/09/2021: "Catalisi per una chimica industriale sostenibile" (one year post-doc grant).
- PROT N./REP. N. 193, deadline 18/11/2020 entitled: "Valorizzazione di gliceroli e derivati degli oli vegetali tramite processi catalitici in fase liquida" (post-graduate).
- N. 86 PROT. N. 569, 18/12/2020 (CIRI-FRAME) entitled: "Sviluppo di catalizzatori eterogenei ibridi polimero/ inorganico per la valorizzazione di biomasse" (one year post-doc grant).

- Protocollo num. 1447 Rep. 147 Fascicolo 5737039, 21/09/2020, entitled: “Catalisi eterogenea per la valorizzazione di biomasse” (one year post-doc grant).
- Protocollo num. 1445 Rep. 145 Fascicolo 5736805, 21/09/2020, entitled: “Studio di catalizzatori eterogenei per la trasformazione di idrocarburi mediante processi di ossidazione selettiva in fase gas” (one year post-doc grant).
- Protocollo num. 1980 Rep. 207 Fascicolo 5921026, 13/11/2020, entitled: “Complessi di rutenio eterogeneizzati per l'omologazione di alcoli” (one year post-doc grant).
- Bando num. 34, deadline 17/02/2020 entitled: "Sviluppo di catalizzatori innovativi eterogenei per la trasformazione di alcoli" (post-graduate).
- Protocollo num. 142 Rep. 35 Fascicolo 5295113, 28/01/2020, entitled: “Studio e sviluppo di catalizzatori per ossidazioni selettive in fase liquida” (one year post-doc grant).

- **Supervisor of post-doc or post graduate researcher** (“assegnisti di ricerca” and “borsisti di studio o ricerca”):

1. Gaetano Pastore, 1 year of Assegno di ricerca
2. Sam Thomas, 1 year of Assegno di ricerca, Protocollo num. 2980 Rep. 246 Fascicolo 9003157 del 07/11/2023, “Sviluppo di processi catalitici innovativi finalizzati al frazionamento ed alla valorizzazione di biomasse lignocellulosiche”
3. Maria Pagliara, 7 months of Borsa di Studio Locale, through INSTM Consortium, “Studio della valorizzazione di alcoli in reazioni condotte in continuo, in fase vapore” (Apr2024-Oct2024).
4. Marco Brocchi, 12 months of Borsa di Studio Locale, through INSTM Consortium, “Studio della valorizzazione di alcoli in reazioni condotte in continuo, in fase vapore” (Nov2023-Oct2024).
5. Gabriele Galletti, 1 year of Assegno di ricerca (post-doc), Rep. n. 197/2023 Prot. n. 2571 del 29/09/2023, “Sviluppo di processi” catalitici innovativi finalizzati all’utilizzo di carbonati organici come reagenti alternativi
6. Morena Chiariotti, 3 months of Borsa di Studio Locale, through INSTM Consortium, “Studio della reazione di metilazione di composti fenolici derivabili da biomasse utilizzando un impianto operante in continuo in fase vapore e catalizzatori eterogenei” (Nov2023-Jan2023).
7. Massimiliano Negri, 6 months of Borsa di Studio Locale, through INSTM Consortium, “Studio della reazione di metilazione di composti fenolici derivabili da biomasse o processi fermentativi utilizzando un impianto operante in continuo in fase vapore” (May2023-Oct2023).
8. Claudio Monaco, 12 months of Borsa di Studio Locale, through INSTM Consortium, “Studio della reazione di metilazione di composti fenolici utilizzando un impianto operante in continuo in fase vapore su sistemi catalitici eterogenei” (Nov2021-Oct2022).
9. Anna Gagliardi, 1 year of Assegno di ricerca (post-doc), Protocollo num. 2317 Rep. 167 Fascicolo 7679805 del 11/10/2022 “Valorizzazione di molecole di origine rinnovabile in processi in continuo in fase vapore”
10. Martina Minelli, 4 months of Borsa di Studio Locale, through INSTM Consortium, “Studio della reazione di derivatizzazione di glicerolo a prodotti ad elevato valore aggiunto” (Dec2021-Mar2022).
11. Laura Setti, 1 year of Assegno di ricerca (post-doc), Protocollo num. 1445 Rep. 145 Fascicolo 5736805 del 21/09/2020 “Studio di catalizzatori eterogenei per la trasformazione di idrocarburi mediante processi di ossidazione selettiva in fase gas”.

- **Supervisor of the following Ph.D. Thesis**:

1. Maria Pagliara: Ph.D Student in Industrial Chemistry, Ciclo XXXX, with a thesis aimed at the development of innovative heterogeneously catalysed processes for the upgrading of bio-alcohols to valuable chemicals and fuels.
2. Marco Brocchi: Ph.D Student in Industrial Chemistry, Ciclo XXXX, with a thesis aimed at the development of innovative heterogeneously catalysed processes for the selective oxidation of C4 substrates toward maleic anhydride. Ph.D funded by Polynt Spa.
3. Giuseppe Salierno: Ph.D Student in Dottorato Nazionale in Catalisi, Ciclo XXXX, with a thesis aimed at the development of innovative heterogeneously catalysed processes for the fractionaction and valorisation of lignocellulosic biomass. Ph.D co-funded by Università Mediterranea of Reggio Calabria.
4. Michele Offidani: Ph.D Student in Industrial Chemistry, Ciclo XXXVIII with a thesis aimed at the investigation and optimisation of heterogeneous catalysts and their implementation in the catalytic pyrolysis of plastics. Ph.D. funded by both the Piano Nazionale di Ripresa e Resilienza (PNRR, ex DM 352/2022) and Versalis Spa. Come da verbale della seduta del Collegio dei Docenti del Corso di Dottorato in Chimica Industriale del 17/10/2023.
5. Luca Visentin: Ph.D Student in Industrial Chemistry, Ciclo XXXVIII with a thesis aimed at the continuous-flow catalytic upgrading of bio-platform molecules in the gas-phase for the production of chemicals and fuels. Ph.D funded by the PRIN project PRIN 2020-Cod. 2020CZCJN7_004 – PE4 - CUP J35F21004300001 - LEVANTE: LEvulinic acid Valorization through Advanced Novel Technologies. Come da verbale della seduta del Collegio dei Docenti del Corso di Dottorato in Chimica Industriale del 17/10/2023.
6. Davide Allkanjari: Ph.D Student in Industrial Chemistry, Ciclo XXXVIII with a thesis aimed at the development of the development of innovative process for the production of bio-based (or "waste-based") lubricants and bitumen. Ph.D funded and performed in collaboration with ENI Spa. Come da verbale della seduta del Collegio dei Docenti del Corso di Dottorato in Chimica Industriale del 17/10/2023.

- **Co-supervisor of the following Ph.D. Thesis**:

1. Sam Thomas: Ph.D Student in Industrial Chemistry, Ciclo XXXX, with a thesis aimed at the development of innovative heterogeneously catalysed processes for the selective oxidation of unsaturated substrates in mild conditions. Ph.D PNRR co-funded by IFF company Benicarlò.
2. Federico Bugli: Ph.D Student in Chemistry, Ciclo XXXVII with a thesis aimed at the development of innovative catalytic process for the fractionation of lignocellulosic biomass and the production of value added chemicals and fuels. Ph.D. funded by PON projects in collaboration with ENI Spa.
3. Michele Morana: Ph.D Student in Chemistry, Ciclo XXXVII with a thesis aimed at the development of innovative micro GC analysers and micro reactors based on MEMS. Ph.D. funded by Pollution S.r.l. and CNR-IMM.
4. Ludovica Conte: Ph.D Student in Chemistry, Ciclo XXXVII with a thesis aimed at the development of innovative catalysts for butane selective oxidation to maleic anhydride. Ph.D. funded by Polynt S.p.A.
5. Prisco Prete: Ph.D Student in Chemistry, Ciclo XXXVI with a thesis entitled "Synthesis of biomass-derived compounds and application for environmental and energy technologies" University of Salerno, department of chemistry and biology "A. Zambelli".
6. Gabriele Galletti: Ph.D Student in Chemistry, Ciclo XXXVI with a thesis aimed at the development of alternative synthetic routes for the valorisation of low value compounds (e.g. waste or by-

products of industrial processes) through the use of CO_2 or organic carbonates. Ph.D. funded by the "Progetto Alte Competenze 2020", Regione Emilia Romagna - POR/FSE 2014/2020, DGR nr. 255 del 30/03/2020.

7. Riccardo Bacchiocchi: Ph.D Student in Chemistry, Ciclo XXXV with a thesis aimed to the valorisation of bio-based compounds (e.g. levulinic acid and furfural) through the synthesis of bio-ethers as innovative bio-fuels, in collaboration and funded by ENI S.p.A.
8. Anna Gagliardi: Ph.D Student in Chemistry, Ciclo XXXV with a thesis aimed to the upgrading of ethanol to higher alcohols.
9. Annalisa Sacchetti: Ph.D Student in Chemistry, Ciclo XXXIV with a thesis in collaboration with Novamont S.p.A. aimed to the hydrogenation of fatty acids derivatives, both in batch and in continuous flow, optimising the preparation of supported noble-metal catalysts.
10. Giulia Balestra: Ph.D Student in Chemistry, Ciclo XXXIV with a thesis aimed to the upgrading of bio-alcohols for instance to higher alcohols through the catalysed Guerbet reaction in the gas o liquid phase.
11. Paola Blair Vasquez: "Upgrading bio-platform molecules in the gas-phase: from levulinic acid to bio-chemicals", discussed 2021 (Ph.D. in Chemistry, Ciclo XXXIII);
12. Laura Setti: "Study of new catalysts for the selective oxidation of *n*-butane to maleic anhydride: the role of catalyst thermal treatment", discussed 2021 (Ph.D. in Chemistry, Ciclo XXXIII);
13. Eleonora Monti: "Supported gold nanoparticles for sustainable catalytic applications", discussed in mid 2021 (Ph.D. in Chemistry, Ciclo XXXIII);

- **Supervisor of the following master thesis**:

1. Greta Cecchinato (AA 2023-2024). Laurea Magistrale in Chimica Industriale (Classe LM-71). To be defined.
2. Hadi Jouladehroodbar (AA 2023-2024). 9246 - Low carbon technologies and sustainable chemistry (Laurea Magistrale). January 2025.
3. Annamaria Catalano (AA 2023-2024). Laurea Magistrale in Chimica Industriale (Classe LM-71). October 2024.
4. Savio Alcantara (AA 2023-2024). Master degree in Advanced Spectroscopy In Chemistry (code. 5706). October 2024.
5. Salierno Giuseppe (AA 2023-2024). 9246 - Low carbon technologies and sustainable chemistry (Laurea Magistrale). October 2024.
6. Elisa Valzano (AA 2022-2023), Thesis on the continuous-flow, gas-phase cross-ketonisation of acid and esters. Laurea Magistrale in Chimica Industriale (Classe LM-71). Discussed in March 2024.
7. Alessio Baldelli (AA 2022-2023), Thesis on the reductive catalytic fractionation of lignocellulosic biomass with innovative magnetic catalysts. 9246 - Low carbon technologies and sustainable chemistry (Laurea Magistrale). Discussed in January 2024.
8. Conor O Malley (AA 2022-2023), Thesis on the alternative production of dimethyl adipate with innovative heterogeneous catalysts. 9246 - Low carbon technologies and sustainable chemistry (Laurea Magistrale). Discussed in January 2024.
9. Giacomo Luzzati (AA 2022-2023), Thesis title "Effetto di nuovi dopanti sulle prestazioni dei catalizzatori V/P/O per la reazione di ossidazione selettiva del butano ad anidride maleica", in collaboration with Polynt S.p.a. Laurea Magistrale in Chimica Industriale (Classe LM-71). October 2023.
10. Giorgia Peroni (AA 2022-2023), thesis title: "Synthesis and pore system modification of large MFI -type zeolite crystals for IR microscopic diffusion studies", in collaboration with Leipzig University. 9246 - Low carbon technologies and sustainable chemistry (Laurea Magistrale). October 2023.

11. Marco Brocchi (AA 2022-2023), thesis title: "Studio di nuovi catalizzatori sostenibili per reazioni di idrogenazione in fase liquida" in collaboration with Versalis S.p.a (Mantova). Laurea Magistrale in Chimica Industriale (Classe LM-71). October 2023.
12. Sam Thomas (AA 2022-2023), thesis title: "Chemical Characterisation of Lignocellulosic Biomass for the Production of Hydrogen by RCF-APR Combined Approach", in collaboration with ENI Donegani (Novara). Master degree in Advanced Spectroscopy In Chemistry (code. 5706). October 2023.
13. Davide Cesari (AA 2021-2022), "Studio della sintesi del 2-acetil furano mediante chetonizzazione in fase vapore". Laurea Magistrale in Chimica Industriale (Classe LM-71). Discussed in January 2023.
14. Davide Allkanjari (AA 2021-2022), "Sintesi di dimetiladipato da carbonati organici e ciclopentanone utilizzando catalizzatori eterogenei a base di zinco". Laurea Magistrale in Chimica Industriale (Classe LM-71). Discussed in October 2022.
15. Marco Berti (AA 2021-2022), "Studio della reazione di hydrogen-transfer di metil levulinato con etanolo in fase vapore: effetto del palladio supportato su catalizzatori contenenti zirconio". Laurea Magistrale in Chimica Industriale (Classe LM-71). Discussed in October 2022.
16. Alessandro Manna (AA 2020-2021), "Studio ed ottimizzazione del sistema catalitico per una sintesi alternativa di dimetiladipato con carbonati organici", Laurea Magistrale in Chimica Industriale (Classe LM-71), discussed in March 2022;
17. Claudio Monaco (AA 2020-2021), "Studio della funzionalizzazione di derivati fenolici mediante reagenti alternativi: l'esempio del diallilcarbonato" Laurea Magistrale in Chimica Industriale (Classe LM-71), discussed in October 2021;
18. Ludovica Conte (AA 2020-2021), "Riduzione di metil levulinato tramite hydrogen transfer con etanolo in fase vapore: ottimizzazione del sistema catalitico contenente zirconio", Laurea Magistrale in Chimica Industriale (Classe LM-71), discussed in October 2021;
19. Gabriele Galletti (AA 2019-2020), "Dimetiladipato: una via di sintesi alternativa da chetoni e carbonati organici", Laurea Magistrale in Chimica Industriale (Classe LM-71);
20. Irene Ghioni (AA 2019-2020), "Trattamento termico di catalizzatori V/P/O: influenza sulle proprietà catalitiche nella sintesi di anidride maleica da *n*-butano", Laurea Magistrale in Chimica Industriale (Classe LM-71);
21. Martina Eberle (AA 2018-2019), "Sintesi del metil metacrilato mediante reazione tra metil propionato e metanolo in fase vapore", Laurea Magistrale in Chimica Industriale (Classe LM-71);
22. Simone Vanzini (AA 2018-2019), "Il glicerol carbonato come reagente innovativo per la derivatizzazione di composti fenolici", Laurea Magistrale in Chimica Industriale (Classe LM-71).

- **Supervisor of the following bachelor thesis**:

1. Matilde Poggetti (AA 2023-2024). Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche).
2. Marco Lo Brutto (AA 2023-2024). Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche).
3. Sofia Simonini (AA 2022-2023) Thesis on the use of organic carbonates for the derivatisation of phenolic compounds. Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche). To be discussed in July 2024.
4. Pietro Zappalorti (AA 2022-2023) Thesis on the fine tune of the catalyst properties for promoting the catalytic hydrogen transfer of alkyl levulinates in the gas-phase. Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche). To be discussed in July 2024.

5. Alberto Antonio De Matteis (AA 2022-2023) "Studio della reazione di H-transfer di esteri del levulinico su sistemi catalitici eterogenei in fase vapore." Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche). October 2023.
6. Riccardo Pedretti (AA 2021-2022), "Studio della reazione tra alcoli aromatici e carbonati organici". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche), discussed in October 2022.
7. Lorenzo Mauro (AA 2021-2022), "Studio della conversione di etanolo in fase vapore catalizzata da ossidi metallici". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche), discussed in October 2022.
8. Sabrina Richeldi (AA 2021-2022), "Il diallil carbonato come agente alchilante di substrati fenolici". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche), discussed in July 2022.
9. Lorenzo Monti (AA 2020-2021), "Studio della sintesi di esteri di diacidi carbossilici mediante reazione tra chetoni ciclici e carbonati organici", Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche), July 2021;
10. Giorgia Peroni (AA 2020-2021), "Studio dell'attività catalitica di ossidi di zirconio nella riduzione di derivati dell'acido levulinico tramite H-transfer con alcoli in fase vapore". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche), July 2021;
11. Elisa Valzano (AA 2020-2021), "Studio della sintesi dell'idrocalcone mediante chetonizzazione in fase vapore". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche), October 2021;
12. Alessio Baldelli (AA 2020-2021), "Studio della reazione di chetonizzazione dell'acido propionico in fase vapore con catalizzatori contenenti zirconio", Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche);
13. Marco Berti (AA 2019-2020), "Ossidazione catalitica selettiva di composti organici volatili per il controllo delle emissioni" in collaboration with Pollution S.r.l. Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche);
14. Francesco Iannelli (AA 2019-2020), "Il glicerol carbonato come reagente alchilante innovativo per la sintesi di benzodiossani sostituiti", Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche).

- **Co-supervisor of the following master thesis**:

1. Maria Pagliara (AA 2022-2023), Thesis title "Development of zirconium-based catalysts for ethanol upgrading to jet fuel blends precursors". Laurea Magistrale in Chimica Industriale (Classe LM-71). To be discussed in March 2024.
2. Aduraseyi Adedibu Adeoye (AA 2020-2021), "Towards the sustainable production of methyl methacrylate: a comparative analysis of industrial chemical production processes using life cycle assessment methodology". Low carbon technologies and sustainable chemistry (Classe LM–71), October 2022.
3. Sabra Banu Rameesdeen (AA 2019-2020), "Investigation of the ketonization reaction of renewable acids and esters". Low carbon technologies and sustainable chemistry (Classe LM–71), March 2022
4. Caterina Bosticco (AA 2020-2021), "Zirconia-based catalysts for a coupled reaction: Methyl Levulinate reduction and Limonene dehydroaromatization in the gas phase". Laurea Magistrale in Chimica Industriale (Classe LM-71), March 2022;
5. Canciani Andrea (AA 2020-2021), "Effect of ZrO2 phases in the Catalytic Transfer Hydrogenation of Methyl Levulinate: a computational and experimental study". Laurea Magistrale in Chimica Industriale (Classe LM-71);
6. Luigi Pellegrino (AA 2019-2020), "Selective ethanol transformation over zirconium oxide-based catalysts". Low carbon technologies and sustainable chemistry (Classe LM–71);

7. Riccardo Bacchiocchi (AA 2018-2019), "Sviluppo di catalizzatori per la sintesi di anidride maleica da *n*-butano". Laurea Magistrale in Chimica Industriale (Classe LM-71);
8. Luca Ganzerla (AA 2017-2018), "Studio della riduzione catalitica di furfurale tramite hydrogen transfer con metanolo in fase vapore". Laurea Magistrale in Chimica Industriale (Classe LM-71);
9. Luca Lorenzetti (AA 2017-2018), "Studio di elettrocatalizzatori per l'ossidazione elettrochimica del glucosio". Laurea Magistrale in Chimica Industriale (Classe LM-71);
10. Laura Setti (AA 2016-2017), "Studio della trasformazione di etanolo ad acetaldeide in fase gas con catalizzatori a base di ossido di rame". Laurea Magistrale in Chimica Industriale (Classe LM-71);
11. Eleonora Monti (AA 2016-2017), "Studio della riduzione dell'acido levulinico mediante H-transfer in fase vapore". Laurea Magistrale in Chimica Industriale (Classe LM-71);
12. Carlo Giliberti (AA 2015-2016), "Studio della reattività del glicerol carbonato nella sintesi di derivati fenolici". Laurea Magistrale in Chimica Industriale (Classe LM-71);
13. Jacopo De Maron (AA 2014-2015), "Alchilazione in fase gassosa del fenolo con reagenti green in catalisi basica eterogenea". Laurea Magistrale in Chimica Industriale (Classe LM-71);
14. Dauren Zhambakin (AA 2013-2014), "Investigation of the reactivity of metal oxide catalysts for the gas-phase phenol methylation" Cds. Advanced Spectroscopy in Chemistry;
15. Bianca Gumina (AA 2012-2013), "Studio della metilazione del fenolo in fase gas su catalizzatori a base di ossidi metallici". Laurea Magistrale in Chimica Industriale (Classe LM-71).

- **Co-supervisor of the following bachelor thesis:**

1. Luca Ganzerla (AA 2015-2016), "Studio dell'etilazione del fenolo in fase vapore su sistemi catalitici eterogenei". Laurea Triennale in Chimica Industriale (Classe L-27 Scienze e Tecnologie Chimiche);
2. Giulia Mengotti (AA 2015-2016), "Alchilazione in fase gassosa del fenolo con dietilcarbonato in catalisi basica eterogenea". Laurea Triennale in Chimica Industriale (Classe L-27 Scienze e Tecnologie Chimiche);
3. Francesca Arenga (AA 2013-2014), "Studio di un nuovo processo per la sintesi di metilendiossibenzene". Corso di laurea in Ingegneria Chimica e Biochimica Università di Bologna;
4. Alessandro Franchini (AA 2014-2015) "Alchilazione di substrati aromatici in fase vapore". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche). Sessione II, A.A.: 2014-2015;
5. Bruno Reghizzi (AA 2013-2014), "Sintesi e utilizzo di nuovi carbonati organici". Laurea Triennale in Chimica Industriale (Classe L-27- Scienze e Tecnologie Chimiche).

ORGANISATION OF EVENTS

- 2025: Catalisi In Gioco (CIG-2025) a competition in catalysis for PhD and postdocs. Will be held in Reggio Calabria in September 2025. https://cig2025sci.wixsite.com/cig2025.
- 2025: Workshop of the Interdivisional Group of Green Chemistry (GC-CS), 3-4 July 2025 Bologna.GIC Award day at Bologna University, 8th of November 2024. New scientific campus "Navile", Auditorium, ground floor, UE1, via della Beverara 123/1.
- Selected by the Interdivisional Group of Catalysis as a member of the international young catalysis researchers group. A group focussed on the organisation of the **18th International Congress on Catalysis in Lyon - ICC 2024 (Lyon July 14-19)**, with a special focus on implementing activities and awards for early career researchers.
- Member of the Scientific Committee of the **CCESC2024 Conference (5th International Symposium on Catalysis for Clean Energy and Sustainable Chemistry, Bilbao July 21-23 2024)**.
- Member of the organizing committee for the **"XXII National Congress of Catalysis (GIC-2022)"**, Riccione, 11-14 September 2022. https://eventi.unibo.it/congresso-gic-2022.

• Member of the organizing committee for **"Catalisi in Gioco, CIG-2021"** (held at the Mediterranea University of Reggio Calabria from 27th to 30th of July 2021). CIG is an innovative contest for Ph.D. students and young researcher (post-doc) focussed on catalysis, green chemistry and biorefinery concepts sponsored by the Interdivisional Group of Catalysis of the Industrial Chemistry Division (SCI), Gruppo Giovani of the Italian Chemistry Society, INSTM consortium, Novamont S.p.A.
Contest official Website: https://cig2020sci.wixsite.com/catalisiingioco.

BRIEF OVERVIEW OF THE RESEARCH AREAS OF INTEREST

Preparation and characterisation of advanced catalytic materials, mechanistic investigation and study of the interaction between reagents/intermediates with the catalytic surface, as well as development of innovative catalytic processes both in liquid and in gas-phase, both in batch and continuous flow reactors.
Each of the following topics are being investigated at the lab scale but keeping an eye on the potential application of the new synthetic strategy on a bigger scale (scale-up and economic feasibility theoretical evaluation).

- Synthesis and use of organic carbonates as alternative, benign, reagents for the development of innovative catalytic processes;
- Valorisation and transformation of bio-based platform molecules (glycerol, levulinic acid and its esters, furfural, 5-hydroxymethyl furfural), through reduction (e.g. H-transfer with alcohols), selective oxidation and alkylation processes;
- Derivatisation of phenolic compounds through selective alkylation and acylation processes;
- Selective oxidation (both in liquid and in gas-phase) and oxidative cleavage reactions;
- Innovative synthetic routes toward bio-based monomers or other value added compounds;
- Hydrogen production, mainly through reforming reaction of bio-based compounds (e.g., aqueous phase reaction of polyols);
- Upgrading of alcohols or use of bio-alcohol as new reducing or alkylating agents;
- Development of catalytic, continuous flow, processes both in liquid and in gas-phase;
- Lignocellulosic biomass hydrolysis or reductive catalytic fractionation.

INTERNATIONAL COLLABORATIONS – EXPERIENCE ABROAD

• Ongoing (or recently concluded) collaborations with foreign University and Research Institutes:

Prof. Paolo Pescarmona, Full Professor in Catalysis & Sustainability, University of Groningen.
Dr. Elsje Alessandra Quadrelli, CNRS-CPE Lyon (FR) (ongoing, working on a joint publication);
Prof. Pedro Jesús Maireles Torres and Prof. Enrique Rodríguez Castellón, University of Malaga (ES) (published article: ACS Sustainable Chem. Eng. 2021, 9, 4, 1790-1803);
Prof. José Manuel López Nieto, UPV Universitat Politècnica de València (ES), (published article: Applied Catalysis A, General 582 (2019) 117102.);
Prof. Gregory Scott Patience, Polytechnique Montréal (Québec), (published article: Applied Catalysis A, General 563 (2018) 98-104)
Prof. Thomas Maschmeyer, University of Sidney, (published article: Catal. Sci. Technol. 2018, 8, 1971-1980);
Dr. Carmine D'agostino, University of Manchester (UK).

• October - December 2015: Ph.D. foreign period experience, **3 months at the School of Chemistry, Nottingham University** (UK). Tutor: Prof. Sir Martyn Poliakoff. Project: Photochemical reaction in high-pressure continuous-flow systems in supercritical CO2 and dimethyl carbonate.

• From 14/02/2018 to 19/02/2018 **research experience at the European Synchrotron Radiation Facility (ESRF), Grenoble (France)**. Application for SNBL-BM31 CRG Beam Time (ref n: 76644 e final n°: 31-01-50). In-situ EXAFS investigation of the active site modification of a Cu supported catalyst in the oxidation of ethanol to acetaldehyde and on the consecutive Guerbet reaction to yield 1-butanol. This research work was performed in collaboration with prof. J.A. Van Bohkoven group of the ETH Zurich University (Department of chemistry and applied biosciences).

• From 17/10/2018 to 19/10/2018 **research experience at the Diamond Light Source synchrotron facilities at Harwell Campus, Didcot (UK):** application SP20364-1 on B18. In particular, in-situ EXAFS investigation in order to follow the in-situ reduction (and re-oxidation) of iron and vanadium oxides with methanol as reducing agent. This research work was performed in collaboration with prof. Andrew M. Beale of the University College of London (UCL).

NATIONAL COLLABORATIONS

• Ongoing collaboration with Italian University or research institutes:
- Prof. Vincenzo Russo, University of Naples.
- Dr. Nicola Scotti, CNR-SCITEC Milan;
- prof. S. Bordiga, Università degli Studi di Torino (published a paper: Applied Catalysis B: Environmental 211 (2017) 323-336);
- prof. Nicola Della Ca', University of Parma;
- prof. G. Cravotto, S. Tabasso and M. Manzoli Università degli Studi di Torino;
- prof. M. Selva and A. Perosa Università Cà Foscari, Venice (papers published: Green Chem. 2017, 19, 1519-1528; ChemSusChem, 12, (14), 2019, 3343-3354; Catal. Sci. Technol. 2018, 8, 1971-1980);
- prof. A.M. Raspolli Galletti and Claudia Antonetti Università di Pisa (ongoing, working on a joint publication);
- prof. Francesco Mauriello Università Mediterranea of Reggio Calabria (papers published: Current Opinion in Green and Sustainable Chemistry, 2020, 24, 1-6; Catalysts, 2019, 9(11), 917; ACS Sustainable Chem. Eng. 2019, 7, 9937-9947);
- prof. A. Proto and Dr. Raffaele Cucciniello, Università degli Studi di Salerno (papers published: Catalysts, 2019, 9(11), 917; Catalysts, 2019, 9(9), 722; Green Chem., 2019, 21, 329-338; Catalysts 2018, 8(9), 391);
- prof. M. Mella, Università degli Studi dell'Insubria (papers published: Catal. Sci. Technol., 2020, 10, 3433-3449; Journal of Catalysis 370 (2019) 447-460; Journal of Catalysis 372 (2019) 61-73; Applied Catalysis A, General 552 (2018) 86-97);
- prof. I. Rossetti, Università degli Studi di Milano (papers published: Chemical Engineering Science 207 (2019) 862-875; ACS Sustainable Chem. Eng. 2018, 6, 5441-5451.);
- prof A. Villa and Dr. S. Campisi, Università degli Studi di Milano Bicocca (papers published: Journal of Environmental Chemical Engineering, 2019, 7(5), 103381; Journal of Physical Chemistry C, 2019, 123(32), 19734-19741; Nanomaterials (Basel). 2019, 9(2). pii: E299; Sustainable Energy Fuels, 2018,2, 2705-2716).

SCIENTIFIC RESPONSIBILITY OF FUNDED RESEARCH PROJECTS AND GRANTS

- From April 2024 to June 2024: Principal Investigator for financed analysis aimed at the investigation of the lifetime and recyclability of a catalytic material for ***Technip Energies Italy S.p.A.*** (**budget: € 18000€**).
- From March 2024 to April 2024: Principal Investigator for financed analysis aimed at the characterisation of catalytic materials for ***Cabro S.p.A.*** (**budget: € 2400€**).
- From January 2024 to January 2026: Principal Investigator of a research agreement for co-financing of scholarships within the framework of ministerial decree n.352, 09/04/2022 – 38th cycle -a.y. 2022/2023 related to the "Selective oxidation of substrates" financed by ***IFF-BENICARLO SL***. (**budget 60000 €/y for three years**).
- From 23rd October 2023 to 22nd October 2025: Principal investigator and scientific responsibility for a research project in collaboration and financed by ***Polynt S.p.A.*** **(budget: 85000€)** related to the evaluation of reduced carbon emission process for the production of maleic anhydride: the gas-phase selective oxidation of 1-butanol.
- From October 2023 to September 2025: Principal Investigator (PI) of the ***Italian PRIN2022 competitive project "ENCAPSULATE"***: ENhanced CAtalytic fractionation and depolymerization Processes for a Straightforward valorization of lignocellULosic biomass to chemicals and mATErials (2022KTAH2L). Approximative budget for the Bologna research unit: **153000€**.
- From November 2022 to October 2025: participant to the ***PE02 - NEST Network 4 energy sustainable transition*** – Spoke 9 (Codice proposta PE00000021, CUP J33C22002890007) Italian project. Co-responsible of the cross-cutting project "Catalysis and Electrocatalysis" together with prof. Cristina Femoni.
- From March 2022 to March 2025: leader of the local research unit of Bologna in the ***Italian PRIN2020 competitive project "LEVANTE"***: LEvulinic acid Valorization through Advanced Novel TEchnologies (2020CZCJN7). Approximative **budget** for the Bologna research unit: **149000€**.
- 2021-2023: Co-responsibility of the research project in collaboration and financed by ***Royal DSM*** **(budget: 100000€)** related to the development of the catalytic process for the continuous-flow, gas-phase alkylation of 1-naphtol with methanol.
- 2020-2021: Principal investigator and scientific responsibility for a research project in collaboration and financed by ***Polynt S.p.A.*** **(budget: 40000€)** related to the development of catalysts for the selective oxidation of hydrocarbons to maleic anhydride.
- 2021-2022: Principal investigator and scientific responsibility for a research project in collaboration and financed by ***Spiga Nord S.p.A.*** **(budget: 45000€)** related to the investigation of innovative routes toward the production of glycerol ethers.
- 2020: Scientific responsibility for financed analysis aimed at the characterisation of few catalytic materials for ***Pollution S.r.l*** (**budget: € 1.522**).
- 2019-2020: Principal investigator and scientific responsibility for a research project in collaboration and financed by ***Hera S.p.A.*** **(budget: 40000€/y)** on the valorisation of lignocellulosic biomass which has led to the filing of a **patent application**.
- 2019-2020: Principal investigator and scientific responsibility for a research project in collaboration and financed by ***So.G.I.S. Industria Chimica S.p.A*****. (budget: 30000€/y)** on the valorisation of vegetable oils, glycerol and derivatives.
- 2019-2020: Principal investigator and scientific responsibility (together with prof. Carlo Lucarelli, University of Insubria, Italy) for a research project in collaboration and financed by ***Endura S.p.A.*** **(budget: 40000€/y)** aimed at the functionalisation of phenolic compounds (through the INSTM consortium). The project has led to the filing of an **international patent application** and the collaboration with the company has been **renovated for another year** (2021-2022, **budget 75000€).**

SCIENTIFIC SOCIETY MEMBERSHIP and ROLES HELD in those society

• Member of the *Italian Chemical Society (SCI)*, (*Industrial Chemistry Division* and *Interdivisional Groups of "Catalysis"* and *"Green Chemistry-Sustainable Chemistry"*).
• Elected member of the Executive Board of the *Interdivisional Groups of "Catalysis"* for the three years period (2024-2026).
• Member of the National Interuniversity Consortium of Materials Science and Technology (*INSTM*), Research Unit of Bologna.
• Member of the Centro Interdipartimentale di Ricerca Industriale-Fonti Rinnovabili, Ambiente, Mare ed Energia (*CIRI-FRAME*).
• Representative of the University of Bologna at the *CO_2-Value Europe*, European association of CO_2 Utilisation (since 2019).
• Member of the Catalysis for Renewable and Innovative Process "Care in Process" group of the Industrial Chemistry Department "Toso Montanari" of the University of Bologna. Website: https://site.unibo.it/catalysis-for-renewables-and-innovative-processes/en

JOURNALS EDITORIAL ACTIVITIES

• 2018-2019: *Guest Editor* of the journal Catalysts for the Special Issue: "Catalytic Transformation of Renewables (Olefin, Bio-sourced, et. al)", (ISSN 2073-4344). The special issue was renovated for another year (2021). **Editorial published:** N. Dimitratos, S. Albonetti and T. Tabanelli. "Catalytic Transformation of Renewables (Olefin, Bio-Sourced, et al.)". Catalysts 2021, 11(3), 364; https://doi.org/10.3390/catal11030364.
• 2019-2020: *Guest Editor* of the journal Catalysts for the Special Issue: "Sustainable and Environmental Catalysis", (ISSN 2073-4344). **Editorial published:** T. Tabanelli, D. Cespi, and R. Cucciniello. "Sustainable and Environmental Catalysis". Editorial. Catalysts 2021, 11(2), 225; https://doi.org/10.3390/catal11020225.

• from 2023: member of the *Editorial Board* as a *Permanent Review Editor Position and Topic Editor* for *Frontiers in Chemistry, Catalytic Reactions and Chemistry (IF 5.545),* an international, multidisciplinary, peer-reviewed open access journal.
• from 2022: member of the *Editorial Board* as a *Permanent Review Editor Position* for *Frontiers in Green and Sustainable Chemistry (IF 5.545),* an international, multidisciplinary, peer-reviewed open access journal.
• from 2021: member of the *Editorial Board* of *Sustainable Chemistry,* an international peer-reviewed open access journal published quarterly by MDPI (covering the role of Topic Editor).

REVIEWER ACTIVITY

I'm acting as a *reviewer* for the following international journals:

Royal Society of Chemistry (RSC) journals: Green Chemistry, New Journal of Chemistry, Reaction Chemistry & Engineering, Sustainable Energy and Fuel, Dalton Transaction.
American Chemical Society (ACS) journals: ACS Catalysis, ACS Industrial & Engineering Chem. Research, ACS Sustainable Chemistry and Engineering.

Elsevier journals: Appl. Catal. B, Catalysis Today, Journal of Catalysis, Journal of CO_2 Utilisation, Current Research in Green and Sustainable Chemistry, Molecular catalysis, Fuel Processing Technology.
Springer journals: Frontiers of Chemical Science and Engineering, Research on Chemical Intermediates, Catalysis Letters, Biomass Conversion and Biorefinery.
MDPI journals: Catalysts, Bioengineering.
Frontiers: Frontiers in chemistry_green and sustainable chem.

Verified review in Publons/Web of Science at the 2nd of May 2024: 56.

Recognised as "Outstanding Reviewer for Green Chemistry in 2019" by the Royal Society of Chemistry. Green Chem., 2020,22, 2627-2627. https://doi.org/10.1039/D0GC90042G.

PATENTS GRANTED OR RECENT APPLICATIONS

1. R. Mazzoni, A. Messori, A. Piazzi, N. Santarelli, G. Martelli, M. Curcio, S. Albonetti, T. Tabanelli. "Procedimento migliorato per la sintesi di 2,5-diidrossimetilfurano (BHMF) da 5-idrossimetilfurfurale (HMF)". Application number 102023000023637, filed 09/11/2023. Assignee: University of Bologna.
2. C. Monaco, F. Cavani, T. Tabanelli, W. Bonrath, J. Schuetz. "An alkylation process of naphthol". Application number EP23168022.4, filed 14th April 2023. Assignee: DSM IP Assets B.V.
3. C. Cortelli, L. Fratalocchi, S. Luciani, L. Setti, F. Cavani, L. Grazia, T. Tabanelli. "Process for the transformation of a vanadium/phosphorus mixed oxide catalyst precursor into the active catalyst for the production of maleic anhydride", WO2023165735A1, filing date: 2nd March 2022. Applicant Polynt S.p.A. Already granted in Italy: "Procedimento per la trasformazione di un precursore di catalizzatore di ossidi misti di vanadio/fosforo nel catalizzatore attivo per la produzione di anidride maleica". N 102022000003872
4. T. Tabanelli, F. Cavani, G. Balestra, A. Gagliardi, M. Berruti. Application title: "Procedimento per la produzione di una miscela utilizzabile come jet fuel a partire da alcoli C2-C4 e relativo impianto". Application number: 102022000003209, filing date 21st February 2022. Applicants: University of Bologna, GST gestioni servizi tecnologie S.R.L and IG Operation and Maintenance S.p.A. PCT application: PCT/IT2023/050054, WO2023157041A1 "Process for the production of mixtures usable as jet fuel or jet fuel precursors starting from C2-C4 alcohols and related plant".
5. C. Lucarelli, T. Tabanelli, M. Eberle, C. Marchioro. Patent title: "Process for the preparation of 3,4-methylenedioxypropiophenone". WO 2022/162223 A1. Published: 4 August 2022. Applicant Endura S.p.A.
6. T. Tabanelli, F. Bugli, S. Longo and D. Nascetti. Patent title: "Catalizzatore magnetico per il frazionamento catalitico riduttivo di biomasse lignocellulosiche". IT202100005024A1, filing date: 4th March 2021. Applicants Hera SpA and University of Bologna.
7. F. Cavani, V. Zanotti, R. Mazzoni, C. Lucarelli, C. Casari, T. Tabanelli, F. Puzzo. "Improved process for the transformation of primary aliphatic alcohols into higher aliphatic alcohols" WO2019/193079A1. Applicant: University of Bologna. US 11,932,592 B2, date of patent Mar. 19, 2024.
8. T. Tabanelli, F. Cavani, C. Giliberti. "Process for obtaining phenolic derivatives by using glycerol carbonate" PCT/EP2018/000113 registered on 23/03/2018. Publication number: WO/2018/171942. Applicant University of Bologna
9. T. Tabanelli, F. Cavani, M. Selva "Process for the preparation of organic carbonate derivates" PCT/IB2016/055692 registered on 24/09/2015. Publication number: WO/2017/051363. Applicants University of Bologna and University of Venice "Ca' Foscari".

10. W. Bonrath, J. Schuetz, F. Cavani, S. Passeri,* T. Tabanelli*. "Novel methylation catalysts". Publication number: WO 2015/197585 Al. Applicant: DSM IP ASSETS B.V. (* inventors wrongly not inserted in the main document, but successively officially added, as proved by the "notification of the recording of a change" documents).
11. W. Bonrath, J. Schuetz, F. Cavani, S. Cocchi*, C. Lucarelli*, T. Tabanelli*. "Manufacture of 2,4,6-trimethylphenol". Publication number: WO 2015/197586 Al. Applicant: DSM IP ASSETS B.V. (* inventors wrongly not inserted in the main document, but successively officially added, as proved by the "notification of the recording of a change" documents).

BOOK CHAPTERS

1) T. Tabanelli. "Acido nitrico". Chapter 8.2, "Fondamenti di chimica industriale", Zanichelli editore, ISBN: 9788808320193.
2) T. Tabanelli. "Acido solforico". Chapter 8.3, "Fondamenti di chimica industriale", Zanichelli editore, ISBN: 9788808320193.
3) T. Tabanelli. "Industria cloro alcali come esempio di elettrolisi industriale". Chapter 8.4, "Fondamenti di chimica industriale", Zanichelli editore, ISBN: 9788808320193.
4) T. Tabanelli and F. Cavani. "Industrial perspectives of biomass processing". Book: "Biomass Valorization: Sustainable Methods for the Production of Chemicals" Edited by: D. Ravelli and C. Samori. Published by Wiley-VCH Verlag GmbH, 2021. ISBN: 3527347178, 9783527347179
5) F. Cavani and T. Tabanelli. "Industrial Aerobic Oxidation of Hydrocarbons" Book title: "Catalytic Aerobic Oxidations". Editor: Esteban Mejía. Published by the Royal Society of Chemistry (RSC) in 2020. DOI: https://doi.org/10.1039/9781839160332-00291
6) T. Tabanelli, A. Chieregato, R. Mazzoni, and F. Cavani. "Biomass valorization: bioethanol upgrading to butadiene". Book title: "Industrial Green Chemistry". Published by De Gruyter, 2020. eISBN: 9783110646856. DOI: https://doi.org/10.1515/9783110646856-007.
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Scopus

Author Identifier: 56403345300.
Citations (Scopus): 1116.
H-index (Scopus): 20.

Web of Science/Publons

Author Identifier: AAL-1300-2020.
Citations (WoS): 1008.
H-index (WoS): 19.

CONFERENCE PROCEEDINGS

• T. Tabanelli, S. Passeri, C. Lucarelli, D. Zhambakin, F. Cavani "Methanol as the precursor of the true electrophilic reactant in the multi-step methylation of phenolics catalysed by mixed metal oxides: superior performance of $FeVO_4$ catalyst" in preprints DGMK Conference on "Synthesis Gas Chemistry", S. Ernst, A. Behr, M. bender, H. Hager, A. Jess, M. MArchionna (Eds), ISBN 978-3-941721-56-2, ISSN 1433-9013, Tagungsbericht 2015-2, p 283-289, 7-9 October 2015, Dresden (D). Poster presentation.

• J. Velasquez Ochoa, T. Tabanelli, C. Cesari, F. Puzzo, G. Innocenti, C. Lucarelli, R. Mazzoni, V. Zanotti, F. Cavani "The Upgrading of Bio-alcohols to Chemicals: The Valsovit Project", DGMK Conference on Petrochemistry and Refining in a Changing Raw Materials Landscape, October 9-11, 2017, Dresden, Germany, DGMK-Tagungsbericht 2017-2, ISBN 978-3-941721-74-6, Proceedings p. 187-189. Poster presentation.

• T. Tabanelli, P. Blair Vásquez, E. Paone, R. Pietropaolo, N. Dimitratos, F. Cavani and F. Mauriello. "Improved Catalytic Transfer Hydrogenation of Levulinate Esters with Alcohols over ZrO_2 Catalyst". Chem. Proc. 2020, 2, 28. doi:10.3390/ECCS2020-07585. (Citation: 0; Journal I.F. 2019: n.a.)

INVITED LECTURES

1. Invited lecture at CNRS of Lyon, invited by Alessandra E. Quadrelli in the framework of a collaboration. **Oral presentation** (40 min) entitled: "New catalysts and strategies for the valorisation of ethanol into fuels and chemicals". Lyon 13-17 February 2024.

CHAIRED SESSIONS AT NATIONAL AND INTERNATIONAL CONFERENCES

1. XXVIII National Congress of Società Chimica Italiana, Milan 26-30 August 2024. Chairman for the Parallel Topic 7; Catalysis (28/Aug/2024)
2. ICC2024, 14-19 July 2024 in Lyon (France). Chairman for T26 "CO_2 valorization" session, T26-09 Thursday 18th July from 11:00 to 12:20.
3. XXIII National Catalysis Congress GIC 2023 Genova, 14-16 June 2023, Genova. Chairman for the "homogeneous and environmental protection catalysts" session, 9-11, June 15th 2023.
4. International Symposium on Green Chemistry (ISGC2022), May 16th-20th 2022 in La Rochelle (FR). Chairman of the OC-10-3 session, 18th of May 2022, on alternative solvents.

CONTRIBUTIONS GIVEN PERSONALLY AT INTERNATIONAL AND NATIONAL CONFERENCES

(from the most recent to the oldest)

1. XXVIII National Congress of the Società Chimica Italiana (SCI2024), Milan, 26-30 August 2024. F. Bugli, A. Baldelli, S. Thomas, M. Sgarzi, M. Gigli, C. Crestini, F. Cavani, and T. Tabanelli. **Poster presentation** entitled: "Innovative and recyclable magnetic catalyst for the development of a sustainable reductive catalytic fractionation process of raw poplar wood sawdust"
2. 18th International Congress on Catalysis (ICC2024), Lyon July 14-19. T. Tabanelli, F. Bugli, A. Baldelli, M. Sgarzi, M. Gigli, C. Crestini, F. Cavani. **Oral presentation** entitled: "Enhanced Reductive Catalytic Fractionation of raw lignocellulosic biomasses with a magnetic recyclable catalyst".
3. XIV Convegno INSTM, 9-12 June 2024, Cagliari. T. Tabanelli, F. Bugli, A. Baldelli, S. Thomas, M. Sgarzi, M. Gigli, C. Crestini, F. Cavani. **Oral presentation** entitled: "Enhanced reductive catalytic fractionation of raw poplar wood sawdust with a magnetic recyclable catalyst".
4. 6th EuChemS Conference on Green and Sustainable Chemistry (6th EuGSC), Salerno 3rd–6th September 2023. T. Tabanelli, F. Bugli, A. Baldelli, M. Sgarzi, M. Gigli, C. Crestini, D. Lorito, F. Cavani. **Oral presentation** entitled: "Enhanced Reductive Catalytic Fractionation of raw lignocellulosic biomasses with a magnetic recyclable catalyst".

5. EuropaCat, Prague, August 27 – September 1, 2023. T. Tabanelli, L. Visentin, A. Ventimiglia, M. Berti, N. Dimitratos, I. Rivalta, S. Albonetti, L. Ardemani, N. Scotti and F. Cavani. **Oral presentation** entitled: "Beyond γ-valerolactone: from levulinates to C5 and C7 esters through innovative continuous-flow processes in the gas phase".
6. PREPA13, 13th International Symposium on "Scientific Bases for the Preparation of Heterogeneous Catalysts". Louvain-la-Neuve, Belgium. July 9-13, 2023. J. De Maron, T. Tabanelli, C. L. Cruz, P. Righi, and F. Cavani. **Oral presentation** entitled: "In-situ promoted segregation of copper from copper ferrites: the formation of an alternative active phase for long-chain alcohols ODH".
7. XXIII National Catalysis Congress GIC 2023 Genova, 14-16 June 2023, Genova. T. Tabanelli, L. Visentin, L. Conte, A. Ventimiglia, M. Berti, Nicola Scotti, Leandro Ardemani, Nikolaos Dimitratos and Fabrizio Cavani. **Oral presentation** entitled: "Beyond γ-valerolactone: from levulinic esters to C5 and C7 esters through innovative continuous-flow processes in the gas phase".
8. DGMK Conference October 5-7, 2022, Ludwigshafen. T. Tabanelli, L. Conte, R. Bacchiocchi, E. Paone, N. Dimitratos, F. Mauriello and F. Cavani. **Oral presentation** entitled: "Toward an efficient, continuous-flow, production of GVL through a catalytic transfer hydrogenation processes with ethanol in the gas phase".
9. GIC2022, XXII National Congress on Catalysis, Riccione 11-14 September 2022. T. Tabanelli, R. Bacchiocchi, E. Paone, L. Conte, S. Albonetti, N. Dimitratos, F. Mauriello and F. Cavani. **Oral presentation** entitled: "Improved Catalytic Transfer Hydrogenation of alkyl levulinates with ethanol over ZrO_2 based catalysts".
10. 9th World Congress on Oxidation Catalysis, Cardiff, 4th-8th September 2022. J. De Maron, T. Tabanelli, C. L. Cruz, P. Righi, and F. Cavani. **Oral presentation** entitled: "Oxidative dehydrogenation of long chain alkenols: an alternative route to key fragrances' ingredients"
11. IX workshop nazionale gruppo interdivisionale di Green Chemistry-Chimica Sostenibile (GC-CS), Pavia, 22-23 June 2022. T. Tabanelli, L. Conte, R. Bacchiocchi, E. Paone, N. Dimitratos, F. Mauriello, F. Cavani. **Oral presentation** entitled: "Valorizzazione di alchil levulinati a γ-valerolattone mediante processi di H-transfer in continuo, in fase vapore".
12. International Symposium on Green Chemistry (ISGC2022), May 16th-20th 2022 in La Rochelle (FR). **Oral presentation** entitled: "Improved Catalytic Transfer Hydrogenation of alkyl levulinates with ethanol over ZrO_2 based catalysts". **Chairman:** chair of the OC-10-3 session, 18th of May 2022, on alternative solvents.
13. Merck Young Chemists' Symposium 2021, 22th-24th of November, Rimini (Italy). **Oral presentation** entitled: "Continuous-flow methyl methacrylate synthesis over Gallium-based bifunctional catalysts". Authors: T. Tabanelli, J. De Maron, F. Basile, N. Dimitratos, P. J. Maireles-Torres, E. Rodriguez-Castellón, and F. Cavani.
14. 12th International Vanadium Symposium (3-5 November 2021). Online conference with an **oral presentation** entitled: "Reactant-induced transformation of mixed metal oxides in gas-phase catalysis: the peculiar behaviour of Iron Vanadate and methanol". Authors: T. Tabanelli, C. Lucarelli, G. Malta, N. Dimitratos, F. Cavani.
15. SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Online conference with an **oral presentation** entitled: "Improved Catalytic Transfer Hydrogenation of alkyl levulinates with alcohols over ZrO_2 based catalysts". Authors: T. Tabanelli, R. Bacchiocchi, E. Paone, P. Blair Vásquez, R. Pietropaolo, N. Dimitratos, F. Mauriello and F. Cavani.
16. 1st International Electronic Conference on catalysis Sciences. 10-30 November 2020. Online loaded presentation entitled: "Improved Catalytic Transfer Hydrogenation of levulinate esters with alcohols over ZrO_2 catalyst". Authors: T. Tabanelli, P. B. Vásquez, E. Paone, R. Pietropaolo, N. Dimitratos, F. Cavani, F. Mauriello.
17. DGMK-Online-Conference: The Future of Chemicals and Fuels - Feedstocks and Process Technologies, 8th October 2020. **Oral presentation** entitled: "Improved Catalytic Transfer

Hydrogenation of levulinate esters with alcohols over ZrO_2 catalyst". Authors: T. Tabanelli, E. Paone, P. B. Vásquez, R. Pietropaolo, N. Dimitratos, F. Cavani, F. Mauriello.

18. Merck Young Chemists' Symposium 2019, 25th–27th of November, Rimini (Italy). **Oral presentation** entitled: "Glycerol carbonate as an innovative alkylating agent for phenolics". Authors: T. Tabanelli, C. Giliberti, R. Mazzoni, R. Cucciniello, and F. Cavani.
19. CIS: Chemistry meets Industry and Society. August 28th-30th 2019, Salerno IT. Poster presentation entitled "Glycerol carbonate as an innovative alkylating agent for phenolics". Authors: T. Tabanelli, C. Giliberti, R. Mazzoni, R. Cucciniello, and F. Cavani.
20. XXI Congresso Nazionale Divisione Chimica Industriale della Società Chimica Italiana, Salerno, 27th of August 2019. **Oral presentation** entitled: "Glycerol carbonate as an innovative alkylating agent for phenolics". Authors: T. Tabanelli, C. Giliberti, R. Mazzoni, R. Cucciniello, and F. Cavani.
21. Europacat 2019. 18th-23rd August 2019, Aachen, Germany. **Oral presentation** entitled: "Reactant-induced transformation of mixed metal oxides in gas-phase catalysis: The peculiar behavior of iron vanadate and methanol". Authors: T. Tabanelli, C. Lucarelli, A. M. Beale, I. Lezcano Gonzalez, V. Celorrio, G. Malta, N. Dimitratos, F. Cavani.
22. AIZ-CIS-GIC Jointly Meeting 2019, 11th-14th June 2019, Amantea (IT). **Oral presentation** entitled: "Glycerol carbonates as an innovative alkylating agent for phenolics". Authors: T. Tabanelli, C. Giliberti, R. Mazzoni, R. Cucciniello, and F. Cavani.
23. Materials for Today Energy challenges (MASTEC). 3rd-4th June 2019, Padova (IT). **Flash oral** and a poster entitled: "Gas-phase continuous-flow catalytic transfer hydrogenation of alkyl levulinates with (bio)ethanol: an improved process for GVL production". Authors: Tabanelli, T.; Blair Vasquez, P.; Monti, E.; Dimitratos, N.; Albonetti, S.; Cavani, F.
24. ISGC-2019, 13th-17th May 2019, La Rochelle, France. **Oral presentation** entitled: "Glycerol carbonates as an innovative alkylating agent for phenolics". Authors: T. Tabanelli, C. Giliberti, R. Mazzoni, R. Cucciniello, and F. Cavani.
25. MEYCS 19th-21st November 2018, Rimini (Italy). **Oral presentation** entitled "New synthetic strategies towards organic carbonates and related innovative applications".
26. GIC-DiChIn 2018 (2nd -5th September 2018), Milan. **Oral presentation** entitled "New synthetic strategies for an efficient production of organic carbonates and related innovative applications".
27. Gordon Research Conference (29/07/2018-03/08/2018) and Seminar (28-29th July 2018), Castelldefels (Spain). **Oral presentation** (Seminar) entitled "New synthetic strategies for an efficient production of organic carbonates and related innovative applications" and a poster (Conference) entitled "First2run: a flagship demonstration of an integrated biorefinery for dry crops sustainable exploitation towards bio-based materials production".
28. PREPA12, 8-12/07/2018 Louvain-La-Neuve (Belgium). Poster entitled "Iron vanadate as a precursor of a novel spinel active phase for methanol activation".
29. Sixth workshop on green chemistry (GC-CS), Milan, 15/06/2018, **flash oral** and a poster entitled "Nuove strategie di sintesi per una produzione efficiente di carbonati organici".
30. Finalist for the "ChiMiCapisce" contest, Rome, 8/06/2018, **flash oral** entitled "Valorizzazione chimica di oli vegetali in intermedi per la chimica fine".
31. CatBior2017, 11th-15th December 2017, Lyon (France). Two posters entitled "A new synthetic strategy for an efficient production of organic carbonates" and "The upgrading of bio-alcohols to chemicals: the Valsovit Project".
32. Europacat 2017, 27th-31st August 2017, Firenze (Italy). **Short oral** and a poster entitled "New synthetic strategies for an efficient production of organic carbonates".
33. ISGC-2017, from 16th to 19th May 2017, La Rochelle, France. **Short oral** and a poster entitled "New synthetic strategies for an efficient production of organic carbonates".
34. XIII PhD Day, Bologna 10-11 March 2016 Organized by the CIRCC (Consorzio Interuniversitario Reattività Chimica e Catalisi): participated with an **oral presentation** entitled "Tool and strategies for the synthesis of organic carbonates".

35. X Convegno INSTM 2015, Favignana (TP), Italy, from 28/06 to 01/07/2015: participated with a **short oral** presentation entitled: "The explanation of the active phase of $FeVO_4$ for the in-situ activation of methanol in the gas-phase phenol methylation".
36. Participation to the 3rd national workshop of Gruppo Interdivisionale di Green Chemistry, 12th June 2015, Reggia di Portici (Napoli), Italy. Partecipated with a **short oral** and a poster entitled: "Attivazione del metanolo in-situ per la reazione di alchilazione del fenolo in fase gas: un nuovo meccanismo a cascata".
37. Participation to the 3rd International Symposium on Green Chemistry, from 3rd to 7th of May 2015, La Rochelle, France: participated with a poster entitled "Organic carbonates as a new sustainable opportunity for chemicals production".
38. Participation to the 3rd International forum on sustainable CO_2 chemical and biochemical utilisation, September 25-26, 2014 Lyon (France): participated with a poster entitled "Organic carbonates as a new sustainable opportunity for chemicals production".
39. Participation to 1st EFCATS-CNRS European Summer School on Catalyst Preparation: Fundamental Concepts and Industrial requirements, 18-22 May 2014, Vogue (France): participated with a poster entitled "In-situ activation of methanol for gas-phase phenol methylation: a domino-type mechanism".
40. 4th International Congress on Green Process Engineering, 7-10 April 2014, Sevilla (Spain): participated with a poster entitled: "In-situ activation of methanol for gas-phase phenol methylation: a domino-type mechanism".
41. VI International Energythink Conference, 27th November 2013, Bologna: participated with a poster entitled: "Organic carbonates as a new sustainable opportunity for chemicals production"
42. NIS (Nanostructured interfaces and surfaces) colloquium on "Advances in CO_2 capture and reactivity with new materials" 15th November 2013, Torino: participated with an **oral presentation** with professor Cavani F.: "Catalytic synthesis and use of organic carbonates".
43. XVII National Congress of Catalysis GIC 2013 and XI Congress of Zeolite Science and Technologies, from 15th to 18th September 2013, Riccione: participated with a poster entitled "Carbonates as reactants for the production of fine chemicals: a greener way to ethoxyphenol synthesis".
44. FineCat 2013 – Symposium on heterogeneous catalysis for fine chemicals, 10th-11th April 2013, Palazzo Steri, University of Palermo, Italy. Partecipated with a poster entitled: "A new domino-type mechanism for a classical reaction: the gas-phase phenol methylation".

CONTRIBUTIONS AT INTERNATIONAL AND NATIONAL CONFERENCES

(presented by co-authors, from the most recent to the oldest)

1. MYCS2023, "Merck Young Chemists' Symposium 2023", Rimini, 13-15 November 2023. M. Berti, T. Tabanelli, G. Galletti, A. Manna, D. Allkanjari, F. Cavani. "Sustainable synthesis of dimethyl adipate from cyclopentanone and dimethyl carbonate".
2. MYCS2023, "Merck Young Chemists' Symposium 2023", Rimini, 13-15 November 2023. M. Offidani, T. Tabanelli, L. Giorgini, T. Benelli, M. Nodari, M. Melloni, A. Ferrando, F. Cavani. "In-situ and ex-situ thermocatalytic pyrolysis of plastics: a comparison of two different approaches".
3. MYCS2023, "Merck Young Chemists' Symposium 2023", Rimini, 13-15 November 2023. L. Visentin, A. Ventimiglia, L. Conte, S. Albonetti, N. Dimitratos, L. Ardemani, N. Scotti, T. Tabanelli, F. Cavani. "Catalytic transfer hydrogenation of levulinate esters with ethanol over Zr-based catalysts under continuous flow conditions".

4. 6th EuChemS Conference on Green and Sustainable Chemistry (6th EuGSC), Salerno 3rd–6th September 2023. L. Visentin, A. Ventimiglia, R. Bacchiocchi, L. Conte, M. Berti, I. Rivalta, S. Albonetti, N. Dimitratos, L. Ardemani, N. Scotti, C. D'Agostino, T. Tabanelli, F. Cavani. "Catalytic transfer hydrogenation of levulinate esters with ethanol over Zr-based catalysts under continuous flow conditions"
5. 6th EuChemS Conference on Green and Sustainable Chemistry (6th EuGSC), Salerno 3rd–6th September 2023. A. Gagliardi, G. Balestra, J. De Maron, R. Mazzoni, T. Tabanelli, F. Cavani. "Sustainable Aviation Fuels: a gas-phase, synthetic pathway based on bio-ethanol and a multifunctional catalyst".
6. 6th EuChemS Conference on Green and Sustainable Chemistry (6th EuGSC), Salerno 3rd–6th September 2023. R. Mazzoni, A. Messori, A. Piazzi, C. Cesari, M. Curcio, A. Gagliardi, I. Rivalta, F. Calcagno, T. Tabanelli, F. Cavania. "The mild side of the Guerbet reaction".
7. X Workshop Gruppo Interdivisionale GC-CS, 6th October 2023. A. Manna, J. De Maron, T. Tabanelli, C. Lopez Cruz, P. Righi, F. Cavani. "Selective oxidation of substrates with heterogeneous catalysis: an alternative route to key fragrances ingredients".
8. X Workshop Gruppo Interdivisionale GC-CS, 6th October 2023. D. Allkanjari, J. De Maron, D. Cesari, T. Tabanelli, A. Fasolini, F. Basile, F. Cavani. "An innovative catalytic pathway for the synthesis of acyl furans: the cross-ketonization of methyl 2-furoate with carboxylic acids"
9. EuropaCat, Prague, August 27 – September 1, 2023. A. Ventimiglia, R. Bacchiocchi, N. Dimitratos, I. Rivalta, T. Tabanelli. "Comparison between the crystalline phases of ZrO2 in methyl levulinate reduction to γ-valerolactone: a theoretical and experimental study".
10. EuropaCat, Prague, August 27 – September 1, 2023. N. Schiaroli, T. Tabanelli, A. Guerrini, S. Billi, C. Lucarelli. "A study of the acylation of 1,3-Benzodioxole over ion exchange resins".
11. EuropaCat, Prague, August 27 – September 1, 2023. J. De Maron, D. Cesari, T. Tabanelli, A. Fasolini, F. Basile, F. Cavani. "An innovative catalytic pathway for the synthesis of acyl furanics: the cross-ketonization of methyl 2-furoate with carboxylic acids"
12. EuropaCat, Prague, August 27 – September 1, 2023. F. Bugli, T. Tabanelli, D. Lorito, M. Sgarzi, F. Cavani. "Enhanced Reductive Catalytic Fractionation of raw lignocellulosic biomasses with magnetic recyclable catalyst".
13. PREPA13, Louvain-la-Neuve, Belgium. July 9-13, 2023. L. Conte, T. Tabanelli, L. Setti, L. Fratalocchi, L. Grazia, S. Luciani, C. Cortelli, F. Cavani. "The role of the thermal treatment in the evolution of active phases in V/P/O catalysts for n-butane selective oxidation to maleic anhydride".
14. XXIII National Catalysis Congress GIC 2023 Genova, 14-16 June 2023, Genova. D. Allkanjari, J. De Maron, D. Cesari, T. Tabanelli, A. Fasolini, F. Basile, F. Cavani. "An innovative catalytic pathway for the synthesis of acyl furans: the cross-ketonization of methyl 2-furoate with carboxylic acids".
15. XXIII National Catalysis Congress GIC 2023 Genova, 14-16 June 2023, Genova. M. Berti, T. Tabanelli, G. Galletti, A. Manna, D. Allkanjari, F. Cavani. "Sustainable synthesis of dymethyl adipate from cyclopentanone and dimethyl carbonate".
16. XXIII National Catalysis Congress GIC 2023 Genova, 14-16 June 2023, Genova. A. Manna, J. De Maron, T. Tabanelli, C. L. Cruz, P. Righi, F. Cavani. "Selective oxidation of substrate with heterogeneous catalysis: an alternative route to key fragrances ingredients".
17. XXIII National Catalysis Congress GIC 2023 Genova, 14-16 June 2023, Genova. M. Offidani, T. Tabanelli, L. Giorgini, T. Benelli, M. Nodari, M. Melloni, A. Ferrando, F. Cavani. "In-situ and ex-situ thermocatalytic pyrolysis of plastics: a comparison of two different approaches".
18. 21st ISWFPC 2023, 4th-7th July, Venice. F. Bugli, T. Tabanelli, D. Lorito, F. Cavani. "Reductive catalytic fractionation of raw poplar wood with an innovative, easily recoverable and recyclable magnetic catalyst".
19. C3-Day 2023, 5 June 2023. D. Allkanjari, M. Berti, G. Galletti, A. Manna, T. Tabanelli, F. Cavani. "Sustainable synthesis of dymethyl adipate from cyclopentanone and dimethyl carbonate".

20. C³-Day 2023, 5 June 2023. A. Piazzi, F. Calcagno, I. Rivalta, A. Messori, A. Gagliardi, C. Cesari, T. Tabanelli, R. Mazzoni, F. Cavani. "Experimental and theoretical study on the role of benzoquinone in the homogeneous catalyzed Guerbet reaction"
21. C³-Day 2023, 5 June 2023. L. Visentin, A. Ventimiglia, R. Bacchiocchi, L. Conte, N. Scotti, L. Ardemani, T. Tabanelli, F. Cavani. "Catalytic transfer hydrogenation of levulinate esters
22. with alcohols over ZrO_2 under continuous gas-flow conditions"
23. 7th Green and Sustainable Chemistry Conference, 22-24 May 2023. G. Galletti, A. Fasolini, J. De Maron, R. Mazzoni, P. Prete, R. Cucciniello, F. Cavani, T. Tabanelli. "Glycerol carbonate as alternative alkylating agent for phenolics"
24. XXI Giornata della Chimica dell'Emilia Romagna 19th of December 2022. "Sustainable synthesis of dymethyl adipate from cyclopentanone and dimethyl carbonate". D. Allkanjari, G. Galletti, A. Manna, L. Monti, T. Tabanelli, F. Cavani.
25. XXI Giornata della Chimica dell'Emilia Romagna 19th of December 2022. "Selective oxidation of substrates with heterogeneous catalysis: an alternative route to key fragrances' ingredients". A. Manna, J. De Maron, T. Tabanelli, C. L. Cruz, P. Righi, and F. Cavani.
26. XXI Giornata della Chimica dell'Emilia Romagna 19th of December 2022. "The Guerbet reaction: an ionic and a neutral catalytic system for bioethanol conversion." A. Messori, C. Cesari, A. Gagliardi, A. Piazzi, F. Calcagno, I. Rivalta, F. Cavani, T. Tabanelli, R. Mazzoni.
27. XXI Giornata della Chimica dell'Emilia Romagna 19th of December 2022. "Smart micro gas chromatograph for online detection and analysis of malodorous substances". M. Morana, S. Zampolli, B. Vazquez Iglesias, I. Elmi, F. Cavani, T. Tabanelli, P. Tratzi, V. Paolini, E. Cozzani, G. De Gennaro, A. Di Gilio, J. Palmisani.
28. XXI Giornata della Chimica dell'Emilia Romagna 19th of December 2022. "Catalytic transfer hydrogenation of levulinate esters with alcohols over ZrO_2 under continuous gas-flow conditions." L. Visentin, A. Ventimiglia, R. Bacchiocchi, N. Dimitratos, S. Albonetti, T. Tabanelli, F. Cavani.
29. R. Bacchiocchi, T. Tabanelli, D. Bianchi and F. Cavani. "Innovative heterogeneous catalysts for the reduction of levulinic acid derivatives to γ-valerolactone and consecutive reduction products". DGMK Conference October 5-7, 2022, Ludwigshafen. Oral presentation.
30. GIC2022, XXII National Congress on Catalysis, Riccione 11-14 September 2022. "How to bring alcohols out of the Guerbet's labyrinth: an active and efficient homogeneous catalytic approach." R. Mazzoni, C. Cesari, A. Gagliardi, A. Messori, V. Zanotti, I. Rivalta, F. Calcagno, T. Tabanelli, C. Lucarelli, F. Cavani.
31. GIC2022, XXII National Congress on Catalysis, Riccione 11-14 September 2022. "Sustainable isosorbide production by a neat one-pot MW-assisted catalytic glucose conversion". M. Belluati, S. Tabasso, F. Bucciol, T. Tabanelli, F. Cavani, G. Cravotto, M. Manzoli.
32. GIC2022, XXII National Congress on Catalysis, Riccione 11-14 September 2022. "Towards powering aircraft with ethanol-derived jet fuel". A. Gagliardi, G. Balestra, T. Tabanelli, F. Cavani.
33. GIC2022, XXII National Congress on Catalysis, Riccione 11-14 September 2022. "Enhanced Reductive Catalytic Fractionation of lignocellulosic biomasses with magnetic recyclable catalyst". F. Bugli, T. Tabanelli, F. Cavani.
34. GIC2022, XXII National Congress on Catalysis, Riccione 11-14 September 2022. "Glycerol carbonate as a versatile alkylating agent for the synthesis of β aryloxy alcohols". G. Galletti, P. Prete, S. Vanzini, R. Cucciniello, F. Cavani, T. Tabanelli.
35. 9th World Congress on Oxidation Catalysis, Cardiff, 4th-8th September 2022. L. Conte, T. Tabanelli, L. Setti, L. Fratalocchi L. Grazia, S. Luciani, C. Cortelli, F. Cavani. Oral presentation entitled: "The role of the thermal treatment in the evolution of active phases in V/P/O catalysts for n-butane selective oxidation to maleic anhydride".
36. 44th International Conference on Coordination Chemistry (ICCC2022). "Boosting the Guerbet reaction: a cooperative homogeneous catalytic system for bioethanol refinery to second-

generation biofuels". A Gagliardi, C. Cesari, A. Messori, N. Monti, C. Lucarelli, T. Tabanelli, V. Zanotti, F. Calcagno, I. Rivalta, F. Cavani and R. Mazzoni.

37. IX workshop nazionale gruppo interdivisionale di Green Chemistry-Chimica Sostenibile (GC-CS), Pavia, 22-23 June 2022. "Glicerol carbonato come agente alchilante innovativo per la sintesi di aril gliceril eteri". G. Galletti, P. Prete, S. Vanzini, R. Cucciniello, A. Fasolini, F. Cavani, T. Tabanelli.
38. G. Galletti, S. Vanzini, R. Mazzoni, R. Cucciniello, F. Cavani and T. Tabanelli. "Glycerol carbonate as innovative alkylating agent in phenyl-glyceryl ethers synthesis". International Symposium on Green Chemistry (ISGC2022), May 16th-20th 2022 in La Rochelle (FR)
39. G. Galletti, S. Vanzini, R. Mazzoni, R. Cucciniello, F. Cavani and T. Tabanelli. "Glycerol carbonate as innovative alkylating agent in phenyl-glyceryl ethers synthesis". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Poster presentation.
40. G. Balestra, S. Solmi, A. Sacchetti, T. Tabanelli, F. Cavani. "The catalytic hydrogenation of 5-(hydroxymethyl)furfural: a comparison between batch and continuous flow approaches". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Poster presentation.
41. R. Bacchiocchi, T. Tabanelli, D. Bianchi and F. Cavani. "Innovative heterogeneous catalysts for the reduction of levulinic acid derivatives to γ-valerolactone and consecutive reduction products". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Oral presentation.
42. A. Ventimiglia, I. Rivalta, E. Monti, N. Dimitratos, M. Garavelli, T. Tabanelli and F. Cavani. "Theoretical study of glucose oxidation to glucaric acid using gold based catalyst". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Oral presentation
43. A. Gagliardi, C. Cesari, A. Messori, N. Monti, C. Lucarelli, T. Tabanelli, V. Zanotti, S. Zacchini, F. Cavani and R. Mazzoni. "Upgrading of Ethanol: Boosting the Guerbet Reaction with a Redox Co-Catalyst". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Oral presentation.
44. A. Sacchetti, T. Tabanelli, M. G. Capraro, L. Capuzzi, F. Cavani. "Bio-oils valorization by selective catalytic hydrogenation: a comparison between batch and continuous flow systems". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Oral presentation.
45. P. Prete, T. Tabanelli, F. Bella, A. Proto, R. Cucciniello. "Green synthesis of glycerol-derived surfactants and carbonates for environmental applications". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Oral presentation.
46. A. Satira, E. Paone, C. Espro, T. Tabanelli, A. Allegri, S. Albonetti, F. Mauriello and F. Cavani. "Tandem Catalytic Upgrading of Limonene and Methyl Levulinate promoted by Pd-based Catalysts". SCI2021, XXVII congresso nazionale della Società Chimica Italiana, 14-23 September 2021. Oral presentation.
47. A. Sacchetti, I. Tosi, T. Tabanelli, F. Cavani, A. Riisager. "Effect of mesoporous in zeolites for the selective conversion of carbohydrates into methyl lactate.". FEZA 2020, 8th FEZA Conference, 4-7 July 2021, Brighton, UK.
48. J. De Maron, L. Bellotti, A. Baldelli, T. Tabanelli, C. Lucarelli, N. Dimitratos, F. Cavani. "Gas-phase continuous-flow ketonization of propionic acid over Al, Zr, La phosphates and related oxides". FEZA 2020, 8th FEZA Conference, 4-7 July 2021, Brighton, UK.
49. R. Bacchiocchi, T. Tabanelli, E. Paone, R. Pietropaolo, P. Blair Vásquez, N. Dimitratos, F. Cavani, and F. Mauriello. "Catalytic Transfer Hydrogenation of Levulinate Esters with Alcohols: Comparison of Batch vs Continuous Gas-Flow Conditions". Camure-11, ISMR-10, Milan 21-24 March 2021. Oral presentation.

50. A. Sacchetti, T. Tabanelli, M. G. Capraro, L. Capuzzi, F. Cavani. "Stability of heterogeneous catalyst for hydrogenation of bio-oils: batch vs. continuous-flows reactor". Camure-11, ISMR-10, Milan 21-24 March 2021. Oral presentation.
51. G. Grillo, M. Manzoli, F. Bucciol, S. Tabasso, F. Cavani, T. Tabanelli, G. Cravotto. "Hydrogenation of levulinic acid to γ-valerolactone via green microwave-assisted reactions either in continuous flow or solvent-free batch processes". Camure-11, ISMR-10, Milan 21-24 March 2021. Oral presentation.
52. E. Monti, C. Alejandra Garcia Soto, F. Martelli, A. Ventimiglia, N. Dimitratos, T. Tabanelli and F. Cavani. "Systematic study for the preparation of Au based catalyst for the glucose oxidation". 1st International Electronic Conference on catalysis Sciences. 10-30 November 2020. Online loaded presentation.
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54. G. Balestra, S. solmi, T. Tabanelli, F. Cavani. "Study of the catalytic hydrogenation of 5-(hydroxymethyl)furfural". CatBior 23-27 September 2019, Turku, Finland. Poster presentation.
55. A. Sacchetti, I. Tosi, T. Tabanelli, F. Cavani, A. Riisager. "Effect of mesoporous zeolites for the selective conversion of carbohydrates into methyl lactate". CatBior 23-27 September 2019, Turku, Finland. Oral presentation.
56. A. Sacchetti, I. Tosi, T. Tabanelli, F. Cavani, A. Riisager. "Polysaccherides as renewable resources for the selective catalytic production of methyl lactate with mesoporous zeolites". VII Workshop Nazionale Gruppo Interdivisionale di Green Chemistry - Chimica Sostenibile - 5 July 2019, Padova.
57. E. Monti, S. Solmi, C. Morreale, T. Tabanelli, N. Dimitratos, F. Cavani. "Oxidation of glucose to glucaric acid using supported gold catalysts". ISGC-2019, 13th-17th May 2019, La Rochelle, France. Oral presentation.
58. P. Blair Vasquez, T. Tabanelli, E. Monti, S. Albonetti, D. Bonincontro, N. Dimitratos, F. Cavani. "Study of the gas-phase catalytic transfer hydrogenation of methyl levulinate with ethanol over ZrO_2". ISGC-2019, 13th-17th May 2019, La Rochelle, France. Oral presentation.
59. J. De Maron; M. Eberle; T. Tabanelli; N. Dimitratos; F. Cavani. "Innovative bifunctional catalytic system for methyl methacrylate synthesis: the peculiar role of gallium". ISGC-2019, 13th-17th May 2019, La Rochelle, France. Oral presentation.
60. L. Setti, A. Caldarelli, F. Cavani, T. Tabanelli, F. Puzzo, N. Dimitratos, C. Lucarelli, C. Cortelli, S. Luciani. "An in-situ raman and reactivity study of the transformation occurring in Nb-doped vanadyl pyrophosphate catalyst". AIZ-CIS-GIC Jointly Meeting 2019, 11th-14th June 2019, Amantea (IT). Poster presentation.
61. E. Monti, S. Solmi, C. Morreale, T. Tabanelli, N. Dimitratos, F. Cavani. "Oxidation of glucose to glucaric acid using supported gold catalysts". AIZ-CIS-GIC Jointly Meeting 2019, 11th-14th June 2019, Amantea (IT). Poster presentation.
62. V. Crocellà, M. Signorile, A. Airi, T. Tabanelli, F. Bonino, F. Cavani, S. Bordiga. "Advanced spectroscopic characterization of acidic sites in hierarchically structured zeolites as catalysts for hindered substrates". AIZ-CIS-GIC Jointly Meeting 2019, 11th-14th June 2019, Amantea (IT). Oral presentation.
63. T. Tabanelli, E. Paone, P. Blair Vásquez, R. Pietropaolo, F. Cavani, F. Mauriello. "Comparing batch and gas-flow conditions in the transfer hydrogenation of alkyl levulinates promoted by ZrO2 catalyst". AIZ-CIS-GIC Jointly Meeting 2019, 11th-14th June 2019, Amantea (IT). Oral presentation.
64. P. Blair Vasquez; T. Tabanelli; E. Monti; N. Dimitratos; S. Albonetti; F. Cavani. "Study of the gas-phase catalytic transfer hydrogenation of methyl levulinate with ethanol over ZrO_2". Europacat 2019. 18th-23rd August 2019, Aachen, Germany. Poster presentation.

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66. V. Crocellà; M. Signorile; A. Airi; T. Tabanelli; F. Bonino; F. Cavani; S. Bordiga. "Tailoring hierarchical zeolites as heterogeneous acid catalyst for hindered substrates". Europacat 2019. 18th-23rd August 2019, Aachen, Germany. Oral presentation.
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68. G. Balestra, S. Solmi, T. Tabanelli, F. Cavani. "Sustainable bio-products: study of the catalytic hydrogenation of 5-(hydroxymethyl)furfural". Chemistry meets Industry & Society (CIS2019), August 28th-30th 2019, Salerno. WS5 PO01 - Poster.
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70. M. Ricciardi, R. Cucciniello, D. Cespi, F. Passarini, T. Tabanelli, F. Cavani, J. Barrault, C. Capacchione, A. Proto. Catalytic conversion of bio-glycidol into value-added products. Chemistry meets Industry & Society (CIS2019), August 28th-30th 2019, Salerno. Oral
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72. C. Cesari, F. Cavani, C. Lucarelli, G. Marani, R. Mazzoni, R. Prati, F. Puzzo, T.Tabanelli, S. Zacchini, V. Zanotti. "Upgrading of Ethanol to Biofuel: an Efficient Ruthenium Ionic Complex catalyzed Guerbet Reaction." 7th EuCheMS Chemistry Congress, 26-30th August 2018, Liverpool, UK, PC07 poster presentation
73. L. Setti, A. Caldarelli, F. Cavani, T. Tabanelli, F. Puzzo, C. Lucarelli, C. Cortelli, S. Luciani. An in-situ Raman and reactivity study of the transformation occuring in Nb-doped vanadyl pyrophosphate catalyst XX congresso nazionale di catalisi e XX congresso nazionale della divisione di chimica industriale, Milano Bovisa, 2-5/09/2018. Atti p. 101 SPL21, Presentazione poster
74. E. Monti, S. Solmi, C. Morreale, T. Tabanelli, F. Cavani. Oxidation of glucose to glucaric acid using supported gold catalysts XX congresso nazionale di catalisi e XX congresso nazionale della divisione di chimica industriale, Milano Bovisa, 2-5/09/2018. Atti p. 100 SPL20, Presentazione poster
75. A. Vassoi, T. Tabanelli, F. Digioia, F. Cavani. First2run: flagship demonstration of an integrated biorefinery for dry crops sustainable exploitation towards biobased materials production XX congresso nazionale di catalisi e XX congresso nazionale della divisione di chimica industriale, Milano Bovisa, 2-5/09/2018. Atti p. 99 SPL19 Presentazione poster
76. P. Blair Vásquez, T. Tabanelli, E. Monti, S. Albonetti, F. Cavani. Study of the catalytic transfer hydrogenation of levulinate esters with alcohols in the gas phase" XX congresso nazionale di catalisi e XX congresso nazionale della divisione di chimica industriale, Milano Bovisa, 2-5/09/2018. Atti p. 96 SPL16 Presentazione poster
77. J. De Maron, T. Tabanelli, L. Ganzerla, C. Lucarelli, F. Cavani. "Alkyl carbonates as non-toxic reagents for selective gas-phase alkylation of phenolics" XX congresso nazionale di catalisi e XX congresso nazionale della divisione di chimica industriale, Milano Bovisa, 2-5/09/2018. Atti p 64, O26AM, Comunicazione orale
78. J. De Maron, L. Ganzerla, T. Tabanelli, F. Cavani, C. Lucarelli. "Alkyl carbonates as non-toxic reagents for selective gas-phase alkylation of phenolics". 3rd Green and Sustainable Chemistry Conference, Berlin, 13-16/05/2018, P1.28, poster presentation.

79. J. Velasquez ochoa, T. Tabanelli, C. Cesari, F. Puzzo, G. Innocenti, C. Lucarelli, R. Mazzoni, V. Zanotti, F. Cavani "The upgrading of bio-alcohols to chemicals: the Valsovit Project", Europacat 2017, Florence 27-31 August 2017, Book of Abstracts, Poster
80. J. De Maron, T. Tabanelli, F. Cavani, C. Lucarelli. "Alkyl carbonates as non-toxic reagents for the selective gas-phase alkylation of phenolics". Europacat 2017, Florence 27-31 August 2017, Book of Abstracts, Poster
81. V. Crocellà, T. Tabanelli, J.G, Vitillo, D. Costenaro, C. Bisio, F. Cavani, S. Bordiga. "A multi technique approach to disclose the reaction mechanism of dimethyl carbonate synthesis over amino-modified SBA-15 catalysts". Europacat 2017, Florence 27-31 August 2017, Book of Abstracts, Poster
82. S. Gjyli, A. Korpa, C. Belviso, T. Tabanelli, F. Cavani "Synthesis and characterisation of zeolite from fly ash in different conditions", XIII Italian Congress of Zeolite Science and Technology, Firenze, 1-2 September 2017, Book of Abstracts. Oral Communication.
83. R. Cucciniello, M. Ricciardi, T. Tabanelli, F. Cavani, A. Proto. "Oxygentaed fuel additives from glycidol valorisation". Young Chemists Symposium, Milano Marittima, 13-15 November 2017, p. 153. Poster presentation.
84. J. De Maron, T. Tabanelli, F. Cavani, C. Lucarelli "Alkyl carbonates as non-toxic reagents for the selective alkylation of phenolics". Young Chemists Symposium, Milano Marittima, 13-15 November 2017, p. 131. Flash oral.
85. S. Cocchi, S. Passeri, T. Tabanelli, C. Lucarelli, F. Cavani, J. Schuetz, W. Bonrath, T. Netscher. "A highly efficient Mg-Ga-O catalyst for a domino-type reaction: the gas-phase ring-methylation of phenolics". Deutschen Gesellschaft fur Catalyse, Weimar, March 2015, poster A1.03. Poster.
86. P. Ziosi, F. Cavani, S. Cocchi, P.Righi, T. Tabanelli. "Carbonates as reactants for the production of fine chemicals: a greener way to ethoxyphenol synthesis". 10th Congress on Catalysis Applied to Fine Chemicals, 16-19 June 2013, Turku (Finland), Book of Abstracts O45. Oral Communication.
87. P. Ziosi, F. Cavani, S. Cocchi, P. Righi, T. Tabanelli. "Carbonates as reactants for the production of fine chemicals: a greener way to 2-phenoxyethanol". 11th European Congress on Catalysis EuropaCat-XI, Lyon (F), 1-6 September 2013, Book of Abstracts p. 230. Poster.
88. P. Ziosi, F. Cavani, S. Cocchi, P. Righi, T. Tabanelli. "Carbonates as reactants for the production of fine chemicals: a greener way to ethoxyphenol synthesis", EFCATS Summer School – 2012 and 1st Italian-Spanish School on Catalysis "Recent advances and new trends in catalysis", Verbania, 11-15 September 2012, Preprints P76 – p. 236. Poster.
89. P. Ziosi, F. Cavani, S. Cocchi, P. Righi, T. Tabanelli. "Carbonates as reactants for the production of fine chemicals: a greener way to ethoxyphenol synthesis", XVIII Congresso Nazionale della Divisione di Chimica Industriale, Firenze 11-14 Giugno 2012, Eds A. Undri, A. Pedna, G. Giachi, G. Giuntoli, Atti OR-03. Oral Communication.

JOB RELATED SKILLS

Communication skills: gained through my experience in the University, assisting the lab experience of students and collaborating on many research projects with both other Italian or International Universities (see below for details) and companies (ENI, Cargill, Versalis, Polynt, Endura, Caviro, Unigrà, Hera, SOGIS, Spiga Nord etc..). Wide experience in presenting and explaining the obtained results by preparing reports for the partners and .ppt presentations to show in group meetings or national and international conferences.

Managerial skills: scientific responsible of different research projects in collaboration with companies, good team coordination skills, coordinating both bachelor, master and Ph.D. students. Responsible for the laboratory solvents and reactants stock management and PhD/post-doc time shift during Covid pandemic (2020).
Catalysis lab formation: lab-scale synthesis and preparation of inorganic catalysts by means of precipitation, co-precipitation, sol-gel synthesis (controlled pH and temperature), hydrothermal and wet or incipient wetness impregnation or sol immobilisation of a support. Good experience both with continuous gas-flow and liquid flow reactors working both at atmospheric and high pressures. Wide experience with batch (autoclaves) and semi-batch reactors. Able to build up of lab-scale rigs (wide experience with Swagelok lines and fittings). Wide experience with products mixture analysis by means of both offline and on-line gas chromatographs (used to maintenance procedures: column changing, injector and basic FID maintenance etc…), GC-MS and HPLC analysis.
Catalyst's characterisation and reaction mechanism investigation: Specific surface area and porosity analysis with both BET and porosimeters. Good experience in powder XRD analysis (I was part of the trained operators allowed to perform the analysis) and related good experience in using X'pert highscore plus for the diffractograms analysis. Able to perform ex-situ and in-situ Raman for structure change analysis, ATR and ex-situ and in-situ FT-IR (in vacuum) and DRIFTS analysis in order to study the interaction of probe molecules with the catalyst surface (reagents adsorptions, Brønsted and Lewis acidity measurements with pyridine), able to perform TPD-R-O analysis in order to investigate catalysts oxidation/reduction or selective adsorption/desorption of probe basic or acidic molecules (acid or basic sites quantification and evaluation). Used to perform elemental analysis: X-ray fluorescence (XRF), atomic absorption and emission spectroscopy (AAS and AES) and thermogravimetric analysis (TGA, DSC). Access of the basic microscopy techniques (SEM-EDX and TEM). In-situ X-ray absorption spectroscopy (XAS) analysis for the investigation of the catalyst active sites modification during the reaction performed at different Synchrotron facilities in collaboration with international group.
Informatic skills: Wide experience in the utilisation of Microsoft Office programs (ECDL-European Computer Driving License), Chem Office (for modelling and design of chemical structures), Avogadro (for example in the assignments of the IR spectroscopy band to the molecules vibration modes), X'pert (mainly for the XRD diffractometric analysis), Spectrum, Opus (for IR spectra analysis), TA universal analysis for TGA and DSC, Origin and so on. Basic experience in software for post-processing of images: Photoshop.

Summary

References available upon request