



Vincenzo Russo, PhD



- 137 papers, 5 book chapters, 3 books
- *h*-index = 24
- 1738 total citations by 1327 documents
- Scopus database: 37018701000
- ORCID: <http://orcid.org/0000-0002-1867-739X>
- WOS Research id: L-9658-2019
- Google Scholar:
<https://scholar.google.com/citations?user=dM546YoAAAAJ&hl=it>

Short history

Vincenzo Russo was born in Naples on 02/05/1985. On 09/05/2014 he got his PhD title in Chemical Sciences at the University of Naples "Federico II", with a thesis entitled "Kinetic and Catalytic Aspects in Propene Oxide Production". From May 2014 to July 2016, he was a Post-Doctoral Researcher at the Department of Chemical Sciences of the University of Naples "Federico II", working on reaction modelling, catalysis, and kinetic investigation. From July 2016 till September 2017, he worked as senior researcher at Åbo Akademi University working on multiphase reactors modelling. On the 13/09/2017 he got his second PhD title in Chemical Engineering at the Åbo Akademi, with a thesis entitled "Reactor Modelling for Fluid-Solid Systems". From September 2017 to November 2022, he was Assistant Professor of Industrial Chemistry at the Chemical Sciences Department of the University of Naples "Federico II". Since 02/04/2019 he is Docent in Kinetics and Transport Phenomena in Chemical Reaction Engineering at Åbo Akademi. On the 18/11/2022 he got Associate Professor position of Industrial Chemistry at the Chemical Sciences Department of the University of Naples "Federico II".

Scientific contributions and research field of interest

- Main scientific activities:
 - Reaction and reactor modelling of multiphase systems
 - Process Intensification
 - Kinetic investigation of catalytic reactions
 - Safety criteria for exothermic reactions
 - Design and realization of lab-scale pilot plants
 - Plant automation and control
- Collaboration with public and private partners:
 - Åbo Akademi University, Turku (FI)
 - TU/Dresden, Dresden (D)
 - INSA Rouen, INSA (FR)
 - Universidade da Coruna, Coruna (ES)
 - Eindhoven University of Technology, Eindhoven (NL)
 - Fraunhofer ICT-IMM, Mainz (D)
 - Dipartimento di Ingegneria Civile, Chimica, Ambientale e dei Materiali, Università di Bologna, Bologna (IT)
 - Dipartimento di Ingegneria Chimica, dei Materiali e della Produzione Industriale, Università degli Studi di Napoli "Federico II", Napoli (IT)
 - Istituto per i Polimeri, Compositi e Biomateriali (IPCB) – CNR, Portici/Pozzuoli (IT)
 - CONSER S.p.A., Roma (IT)

Job experiences and formation

- Date 18/11/2022 – today
 - Institute Name University of Naples “Federico II” – Chemical Sciences Department
 - Subject Industrial Chemistry
 - Qualification Associate Professor in Industrial Chemistry (CHIM/04) - RTDB
- Date 2022 – today
 - Institute Name ECTN
 - Qualification Representative of the University of Naples “Federico II”
- Date 18/11/2019 – 17/11/2022
 - Institute Name University of Naples “Federico II” – Chemical Sciences Department
 - Subject Industrial Chemistry
 - Qualification Assistant Professor in Industrial Chemistry (CHIM/04) - RTDB
- Date 25/05/2020 – today
 - Institute Name Czech Academy of Sciences
 - Qualification Evaluator
- Date 12/04/2019
 - Institute Name ECTN Label Committee
 - Qualification Evaluator
- Date 02/04/2019
 - Institute Name Åbo Akademi– Laboratory of Industrial Chemistry and Reaction Engineering
 - Subject Chemical Engineering
 - Qualification Docent in Kinetics and Transport Phenomena in Chemical Engineering.
- Date 04/09/2017 – 17/11/2019
 - Institute Name University of Naples “Federico II” – Chemical Sciences Department
 - Subject Industrial Chemistry
 - Qualification Assistant Professor in Industrial Chemistry (CHIM/04) - RTDA
- Date 26/01/2017 – 04/09/2017
 - Institute Name Åbo Akademi– Laboratory of Industrial Chemistry and Reaction Engineering
 - Subject Chemical Engineering
 - Qualification PhD in Chemical Engineering.
 - Thesis Title Reactor Modelling for Fluid-Solid Systems
- Date 19/07/2016 – 19/12/2016
 - Institute Name Åbo Akademi– Laboratory of Industrial Chemistry and Reaction Engineering
 - Subject Industrial Chemistry
 - Qualification Fellowship holder: "Multidimensional reactor models for fluid-solid systems", Johan Gadolin Scholarship – Process Chemistry center.
- Date 01/2015
 - Qualification Admitted to the Chemical Profession
- Date 01/01/2016 – 19/07/2016
 - Institute Name University of Naples “Federico II” – Chemical Sciences Department
 - Subject Industrial Chemistry
 - Qualification Research grant: “Studio della sintesi di poliesteri e poliammidi da acido succinico ottenuto da brodi di fermentazione e scale-up del processo”, ambito disciplinare Scienze Chimiche, BioPoliS (PON03PE_00107_1/1 CUP E48C14000030005).
- Date 01/07/2015 – 30/11/2015
 - Institute Name University of Naples “Federico II” – Chemical Sciences Department
 - Subject Industrial Chemistry

- Qualification Fellowship holder: "Sviluppo di modelli matematici di simulazione ed ottimizzazione di fermentatori industriali", POR Campania FERS 2007/2013 - Bio Industrial Processes (BIP) - project for a regional biotechnologies network in Campania CUP B25C13000290007.
- Date 12/05/2014 – 15/05/2015
- Institute Name University of Naples “Federico II” - Civil, Architectural and Environmental Engineering Department
- Subject Industrial Chemistry
- Qualification Fellowship holder: PON04_a2F B&SAVE-AQUASYSTEM-SIGOLD (CUP E61H2000170005), BORS 14 DICEA/2014.
- Date 01/04/2011 – 09/05/2014
- Institute Name University of Naples “Federico II” - Chemical Sciences Department
- Subject Industrial Chemistry
- Qualification PhD in Chemical Sciences
- Thesis Title Kinetic and Catalytic Aspects in Propene Oxide Production
- Date 01/11/2013 – 28/02/2014
- Institute Name Åbo Akademi– Laboratory of Industrial Chemistry and Reaction Engineering
- Subject Industrial Chemistry
- Qualification Visiting student
- Date 15/09/2010 – 01/03/2011
- Institute Name University of Naples “Federico II” - Chemical Sciences Department
- Subject Industrial Chemistry
- Qualification Fellowship holder: "Metodi innovativi per la produzione di oli Epossidati", cooperation with Mythen SpA.
- Date 09/2008 – 23/06/2010
- Institute Name University of Naples “Federico II” - Chemical Sciences Department
- Subject Industrial Chemistry
- Qualification Master’s degree in sciences and Technologies of Industrial Chemistry - 110/110 cum laude.
- Date 09/2003 – 28/03/2008
- Institute Name University of Naples “Federico II” - Chemical Sciences Department
- Subject Industrial Chemistry
- Qualification Bachelor’s degree in industrial chemistry - 110/110 cum laude.

PRIZES

1. “Best in show 2013” – cluster prize for Energy, Environment and Green Chemistry assigned to the research group. SMAU 2013. 12 December 2013.
2. PSE Model-Based Innovation Prize runner-up, 2015. Winning paper: V. Russo, T. Kilpiö, J. Hernandez Carucci, M. Di Serio, T. Salmi. Modeling of microreactors for ethylene epoxidation and total oxidation. Chemical Engineering Science **2015**, 134, 563–571. 05 October 2015.
3. 2019 ChemEngineering Travel Award.
4. Finalist to the “Premio Primo Levi” 2019 edition by the Italian Chemistry Society (SCI).
5. “Premio R.K. Grasselli” 2020 edition by the GIC (Gruppo Interdivisionale di Catalisi) of the Italian Chemistry Society (SCI).
6. The Front Cover Art for the manuscript: E. Santacesaria, R. Turco, V. Russo, M. Di Serio, R. Tesser. Kinetics of Soybean Oil Epoxidation in a Semibatch. Industrial & Engineering Chemistry Research 2020, 59(50),21617-22016 (10.1021/acs.iecr.0c04530)

Scientific contributes

Papers on magazines

1. E. Santacesaria, R. Tesser, M. Di Serio, V. Russo, R. Turco. A New Simple Microchannel Device To Test Process Intensification. *Industrial & Engineering Chemistry Research* **2011**, 50, 2569-2575.
2. E. Santacesaria, R. Tesser, M. Di Serio, R. Turco, V. Russo, D. Verde. A biphasic model describing soybean oil epoxidation with H_2O_2 in a fed-batch reactor. *Chemical Engineering Journal* **2011**, 173, 198-209.
3. E. Santacesaria, M. Di Serio, R. Tesser, M. Tortorelli, R. Turco, V. Russo. A simple device to test biodiesel process intensification. *Chemical Engineering and Processing* **2011**, 50, 1085-1094.
4. E. Santacesaria, R. Turco, M. Tortorelli, V. Russo, M. Di Serio, R. Tesser. Biodiesel process intensification: the role of the liquid-liquid interface area in the achievement of a complete conversion in few seconds. *Green Processing and Synthesis* **2012**, 1, 181-189.
5. E. Santacesaria, M. Di Serio, R. Tesser, R. Turco, M. Tortorelli, V. Russo. Biodiesel process intensification in a very simple microchannel device. *Chemical Engineering and Processing* **2012**, 52, 47-54.
6. D. Kralisch, I. Streckmann, D. Ott, U. Krtischil, E. Santacesaria, M. Di Serio, V. Russo, L. De Carlo, W. Linhart, E. Christian, B. Cortese, M. de Croon, V. Hessel. Transfer of the Epoxidation of Soybean Oil from Batch to Flow Chemistry Guided by Cost and Environmental Issues. *Chemsuschem* **2012**, 5, 300-311.
7. E. Santacesaria, A. Renken, V. Russo, R. Turco, R. Tesser, M. Di Serio. Biphasic Model Describing Soybean Oil Epoxidation with H_2O_2 in Continuous Reactors. *Industrial & Engineering Chemistry Research* **2012**, 51, 8760-8767.
8. R. Tesser, M. Di Serio, R. Vitiello, V. Russo, E. Ranieri, E. Speranza, E. Santacesaria. Glycerol Chlorination in Gas-Liquid Semibatch Reactor: An Alternative Route for Chlorohydrins Production. *Industrial & Engineering Chemistry Research* **2012**, 51, 8768-8776.
9. E. Santacesaria, R. Turco, M. Tortorelli, V. Russo, M. Di Serio, R. Tesser. Biodiesel Process Intensification by Using Static Mixers Tubular Reactors. *Industrial & Engineering Chemistry Research* **2012**, 51, 8777-8787.
10. E. Salzano, A. G. Agreda, V. Russo, M. Di Serio, E. Santacesaria. Safety Criteria for the Epoxydation of Soybean Oil in Fed-Batch Reactor. *Chemical Engineering Transactions* **2012**, 26, 39-44.
11. R. Turco, R. Vitiello, V. Russo, R. Tesser, E. Santacesaria, M. Di Serio. Selective epoxidation of soybean oil with performic acid catalyzed by acidic ionic exchange resins. *Green Processing and Synthesis* **2013**, 2 (5), 427-434.
12. V. Russo, R. Tesser, E. Santacesaria, M. Di Serio. Chemical and Technical Aspects of Propene Oxide Production via Hydrogen Peroxide (HPPO Process). *Industrial & Engineering Chemistry Research* **2013**, 52 (3), 1168-1178.
13. V. Russo, L. Protasova, R. Turco, M. H. J. M. de Croon, V. Hessel, E. Santacesaria. Hydrogen Peroxide Decomposition on Manganese Oxide Supported Catalyst: From Batch Reactor to Continuous Microreactor. *Industrial & Engineering Chemistry Research* **2013**, 52 (23), 7668-7676.
14. R. Turco, J. Haber, I. Yuranov, V. Russo, E. Santacesaria, L. Kiwi-Minsker. Sintered metal fibers coated with transition metal oxides as structured catalysts for hydrogen peroxide decomposition. *Chemical Engineering and Processing: Process Intensification* **2013**, 73, 16-22.
15. R. Vitiello, V. Russo, R. Turco, R. Tesser, M. Di Serio, E. Santacesaria. Glycerol chlorination in a gas-liquid semibatch reactor: new catalysts for chlorohydrin production. *Chinese Journal of Catalysis* **2014**, 35(5), 663-669.
16. V. Russo, R. Tesser, E. Santacesaria, M. Di Serio. Kinetics of Propene Oxide Production via Hydrogen Peroxide with TS-1. *Industrial & Engineering Chemistry Research* **2014**, 53, 6274-6287.
17. E. Santacesaria, R. Vitiello, R. Tesser, V. Russo, R. Turco, M. Di Serio. Chemical and Technical Aspects of the Synthesis of Chlorohydrins from Glycerol. *Industrial & Engineering Chemistry Research* **2013**, 53(22), 8939-8962.
18. V. Russo, T. Kilpio, M. Di Serio, R. Tesser, E. Santacesaria, D. Y. Murzin, T. Salmi. Dynamic non-isothermal trickle bed reactor with both internal diffusion and heat conduction: arabinose hydrogenation as a case study. *Chemical Engineering Research and Design* **2015**, 102, 171-185.
19. V. Russo, T. Kilpiö, J. Hernandez Carucci, M. Di Serio, T. Salmi. Modeling of microreactors for ethylene epoxidation and total oxidation. *Chemical Engineering Science* **2015**, 134, 563-571.
20. V. Russo, R. Tesser, M. Trifuoggi, M. Giugni, M. Di Serio. A dynamic intraparticle model for fluid-solid adsorption kinetics. *Computers and Chemical Engineering* **2015**, 74, 66-74.
21. M. Di Serio, R. Tesser, V. Russo, R. Turco, R. Vitiello, Y. Sun, W. Hreczuch. Catalysts for the ethoxylation of esters. *Journal of Surfactants and Detergents* **2015**, 18, 913-918.
22. V. Russo, R. Tesser, D. Masiello, M. Trifuoggi, M. Di Serio. Further verification of adsorption dynamic intraparticle model (ADIM) for fluid-solid adsorption kinetics in batch reactors. *Chemical Engineering Journal* **2016**, 283, 1197-1202.

23. E. Salzano, V. Russo, R. Tesser, M. Di Serio. Facing the Hazard of Biphasic, Unstable, Highly Exothermic Process: the Case of Epoxidation of Vegetable Oils. *Chemical Engineering Transactions* **2016**, 48, 493-498.
24. V. Russo, D. Masiello, M. Trifuoggi, M. Di Serio, R. Tesser. Design of an adsorption column for methylene blue abatement over silica: from batch to continuous modelling. *Chemical Engineering Journal* **2016**, 302, 287-295.
25. R. Vitiello, C. Li, V. Russo, R. Tesser, R. Turco, M. Di Serio. Catalysis for esterification reactions: a key step in the biodiesel production from waste oils. *Rend. Fis. Acc. Lincei* **2017**, 28, S117-S123.
26. T. Kilpiö, V. Russo, K. Eränen, T. Salmi. Design and modeling of laboratory scale three phase fixed bed reactors. *Physical Sciences Reviews* **2016**, 1(3), -. Online open access journal. doi:10.1515/psr-2015-0020
27. T. Kilpiö, E. Behraves, V. Russo, K. Eränen, T. Salmi. Physical Modelling of the Laboratory-Scale Packed Bed Reactor for Partial Gas-Phase Oxidation of Alcohol using Gold Nanoparticles as the Heterogeneous Catalyst. *Chem. Eng. Res. Des.* **2017**, 117, 448-459.
28. T. Salmi, V. Russo, C. Carletti, T. Kilpiö, R. Tesser, D. Murzin, T. Westerlund, H. Grénman. Application of film theory on the reactions of solid particles with liquids: shrinking particles with changing liquid films. *Chem. Eng. Sci.* **2017**, 160, 161-170.
29. V. Russo, M. Trifuoggi, M. Di Serio, R. Tesser. Fluid-solid adsorption in batch and continuous processing: a review and insights on the modelling. *Chemical Engineering & Technology* **2017**, 40(5), 799-820.
30. L. Minieri, S. Esposito, V. Russo, B. Bonelli, M. Di Serio, B. Silvestri, A. Vergara, A. Aronne. A New Sol-Gel Ru-Nb-Si Mixed-Oxides Bifunctional Catalyst for the Hydrogenation of Levulinic Acid in Aqueous Phase. *CHEMCATCHER* **2017**, 9, 1-12.
31. E. Santacesaria, V. Russo, R. Tesser, R. Turco, M. Di Serio. Kinetics of Performic Acid Synthesis and Decomposition. *Industrial & Engineering Chemistry Research* **2017**, 56(45), 12940-12952.
32. M. Di Serio, V. Russo, E. Santacesaria, R. Tesser, R. Turco, R. Vitiello. Liquid-liquid-solid model for the epoxidation of soybean oil catalysed by Amberlyst-16. *Industrial & Engineering Chemistry Research* **2017**, 56(45), 12963-12971.
33. R. Vitiello, R. Tesser, V. Russo, R. Turco, S. Andini, M. Di Serio. Loop reactor modeling for lubricants synthesis. *Chemical Engineering Journal* **2017**, 329, 295-304.
34. V. Casson Moreno, V. Russo, R. Tesser, M. Di Serio, E. Salzano. Thermal risk in semi-batch reactors: The epoxidation of soybean oil. *Process Safety and Environmental Protection* **2017**, 109, 529-539.
35. V. Russo, O. Ortona, R. Tesser, L. Paduano, M. Di Serio. On the importance to choose the Best Minimization algorithm for the determination of ternary diffusion coefficients by Taylor dispersion method. *ACS Omega* **2017**, 2, 2945-2952.
36. V. Russo, T. Salmi, C.A. Carletti, D.Yu. Murzin, T. Westerlund, R. Tesser, H. Grénman. Application of an Extended Shrinking Film Model to limestone dissolution. *Industrial & Engineering Chemistry Research* **2017**, 56(45), 13254-13261.
37. D.Yu Murzin, S. Garcia, V. Russo, T.T. Kilpiö, L.I. Godina, A. Tokarev, A. Kirilin, I.L. Simakova, S. Poulston, D.A. Sladkovskiy, J. Warna. Kinetics, modelling and process design of hydrogen production by aqueous phase reforming of xylitol. *Industrial & Engineering Chemistry Research* **2017**, 56(45), 13240-13253.
38. V. Russo*, T. Salmi, F. Mammitzsch, O. Jogunola, R. Lange, J. Wärnå, J.-P. Mikkola. First, second and nth order autocatalytic kinetics in continuous and discontinuous reactors. *Chemical Engineering Science* **2017**, 172, 453-462.
39. R. Turco, R. Tesser, R. Vitiello, V. Russo, S. Andini, M. Di Serio. Synthesis of Biolubricant Basestocks from Epoxidized Soybean Oil. *Catalysts* **2017**, 7, 309.
40. V. Russo, R. Tesser, M. Di Serio, W. Hreczuch, Y. Sun. Alkoxylation for Surfactant Productions: towards the Continuous Reactors. *China Detergent & Cosmetics* **2017**, 1(4), 41-45.
41. E. Behraves, T. Kilpiö, V. Russo, K. Eränen, T. Salmi. Experimental and modelling study of partial oxidation of ethanol in a micro-reactor using gold nanoparticles as the catalyst. *Chemical Engineering Science* **2018**, 176, 421-428.
42. L. Bomont, M. Alda-Onggar, V. Fedorov, A. Aho, J. Peltonen, K. Eränen, M. Peurla, N. Kumar, J. Wärnå, V. Russo, P. Mäki-Arvela, H. Grenman, M. Lindblad, D. Murzin. Production of cycloalkanes in hydrodeoxygenation of isoeugenol over Pt- and Ir-modified bifunctional catalysts. *Eur. J. Inorg. Chem* **2018**, 2018(24), 2841-2854.
43. V. Russo, V. Hrobar, P. Mäki-Arvela, K. Eränen, F. Sandelin, M. Di Serio, T. Salmi. Kinetics and Modelling of Levulinic Acid Esterification in Batch and Continuous Reactors. *Topics in Catalysis* **2018**, 1-10.
44. T. Allie-Ebrahim, V. Russo, O. Ortona, L. Paduano, R. Tesser, M. Di Serio, P. Singh, Q. Zhu, G.D. Moggridge, C. D'Agostino. A predictive model for the diffusion of a highly non-ideal ternary system. *Phys. Chem. Chem. Phys.* **2018**, 20(27), 18436-18446.
45. A. Sulman, P. Mäki-Arvela, L. Bomont, V. Fedorov, M. Alda-Onggar, A. Smeds, J. Hemming, V. Russo, J. Wärnå, M. Käldestrom, D.Y. Murzin. Vanillin Hydrodeoxygenation: Kinetic Modelling and Solvent Effect. *Catalysis Letters* **2018** 1-13.
46. M. Stanzione, V. Russo, M. Oliviero, L. Verdolotti, A. Sorrentino, M. Di Serio, R. Tesser, S. Iannace, M. Lavorgna. Synthesis and characterization of sustainable polyurethane foams based on polyhydroxyls with

- different terminal groups. *Polymer* **2018**, 149(1), 134-154.
47. V. Russo*, R. Tesser, C. Rossano, R. Vitiello, R. Turco, T. Salmi, M. Di Serio. Chromatographic reactor modelling. *Chemical Engineering Journal* **2019**, 377, 119692.
 48. F. Storgårds, P. Mäki-Arvela, N. Kumar, J. Peltonen, J. Salonen, M. Perula, K. Eränen, V. Russo, D. Yu. Murzin, H. Grénman. Catalytic Conversion of Hexanol to 2-Butyl-octanol Through the Guerbet Reaction. *Topics in Catalysis* **2018**, 61(18-19), 1888-1900.
 49. A.P. Nebreda, V. Russo, M. Di Serio, K. Eränen, D. Yu Murzin, T. Salmi, H. Grénman. High purity fructose from inulin with heterogeneous catalysis – from batch to continuous operation. *Journal of Chemical Technology & Biotechnology* **2019**, 94, 418-425.
 50. T. Salmi, V. Russo. Modelling of a liquid-liquid-solid-gas system: Hydrogenation of dispersed liquid sodium to sodium hydride. *Chemical Engineering Journal* **2019**, 356(15), 445-452.
 51. M. Stanzione, V. Russo, M. Oliviero, L. Verdolotti, A. Sorrentino, M. Di Serio, R. Tesser, S. Iannace, M. Lavorgna. Characterization of sustainable polyhydroxyls, produced from bio-based feedstock, and polyurethane and copolymer urethane-amide foams. *Data in Brief* **2018**, 21, 269-275.
 52. A.P. Nebreda, V. Russo, M. Di Serio, T. Salmi, H. Grénman. Modelling of homogeneously catalyzed hemicelluloses hydrolysis in a laminar-flow reactor. *Chemical Engineering Science* **2019**, 195, 758-766.
 53. V. Russo, E. Santacesaria, R. Tesser, R. Turco, R. Vitiello, M. Di Serio. Validation of the kinetics of the Hydrogen Peroxide Propene Oxide (HPPO) process in a dynamic Continuous Stirred Tank Reactor. *Industrial & Engineering Chemistry Research* **2018**, 57, 16201-16208.
 54. V. Russo, A. Milicia, M. Di Serio, R. Tesser. Falling film reactor modelling for sulfonation reactions. *Chemical Engineering Journal* **2019**, 377, 120464.
 55. P. Mäki-Arvela, N. Shcherban, C. Lozachmeur, V. Russo, J. Wärnå, D. Yu. Murzin. Isomerization of α -Pinene Oxide: Solvent Effects, Kinetics and Thermodynamics. *Catalysis Letters* **2018**, 1-12.
 56. T. Salmi, V. Russo. Reaction engineering approach to the synthesis of sodium borohydride. *Chemical Engineering Science* **2019**, 199, 79-87.
 57. S. Esposito, B. Silvestri, V. Russo, B. Bonelli, M. Manzoli, F.A. Deorsola, A. Vergara, A. Aronne, M. Di Serio. Self-Activating Catalyst for Glucose Hydrogenation in the Aqueous Phase under Mild Conditions. *ACS Catal* **2019**, 9, 3426-3436.
 58. P. Mäki-Arvela, N. Shcherban, C. Lozachmeur, K. Eränen, A. Aho, A. Smeds, N. Kumar, J. Peltonen, M. Peurla, V. Russo, K.P. Volcho, D. Yu. Murzin. Aldol Condensation of Cyclopentanone with Valeraldehyde Over Metal Oxides. *Catalysis Letters* **2019**, 149(5), 1383-1395.
 59. R. Turco, R. Tesser, V. Russo, R. Vitiello, M. Fagnano, M. Di Serio. Comparison of Different Possible Technologies for Epoxidation of Cynara cardunculus Seed Oil. *European Journal of Lipid Science and Technology* **2019**, 122, 1900100.
 60. T. Salmi, K. Eränen, P. Tolvanen, J.-P. Mikkola, V. Russo. Determination of kinetics and equilibria of heterogeneously catalyzed gas-phase reactions in gradientless autoclave reactors by using the total pressure method: Methanol synthesis. *Chemical Engineering Science* **2019**, 215, 115393.
 61. R. Tesser, V. Russo, R. Turco, R. Vitiello, M. Di Serio. Bio-lubricants Synthesis from the Epoxidized Oil promoted by Clays: Kinetic modelling. *Chemical Engineering Science* **2019**, 214, 115445.
 62. E. Santacesaria, V. Russo, R. Tesser, M. Di Serio. A kinetic biphasic approach to biodiesel process intensification. *Chemical Engineering Transactions* **2019**, 74, 1339-1344.
 63. A. Sulman, P. Mäki-Arvela, L. Bomont, M. Alda-Onggarm V. Fedorov, V. Russo, K. Eränen, M. Peurla, U. Akhmetzyanova, L. Skuhrovová, Z. Tišler, H. Grénman, J. Wärnå, D.Y. Murzin. Kinetic and Thermodynamic Analysis of Guaiacol Hydrodeoxygenation. *Catalysis Letters* **2019**, 149(9), 2453-2467.
 64. V. Russo*, L. Mastroianni, R. Tesser, T. Salmi, M. Di Serio. Intraparticle Modeling of Non-Uniform Active Phase Distribution Catalyst. *ChemEngineering* **2020**, 4, 24.
 65. Y. Khan, T. Kilpiö, M. Marin, V. Russo, J. Lehtonen, R. Karinen, T. Salmi. Modelling of a microreactor for the partial oxidation of 1-butanol on a titania supported gold catalyst. *Chemical Engineering Science* **2020**, 221, 115695.
 66. R. Jogi, P. Mäki Arvela, P. Virtanen, N. Kumar, J. Hemming, V. Russo, A. Samikannu, T.A. Lestander, J.-P. Mikkola. Understanding the formation of phenolic monomers during fractionation of birch wood under supercritical ethanol over iron based catalysts. *Journal of the Energy Institute* **2020**, 93(5), 2055-2062.
 67. V. Russo*, R. Tesser, C. Rossano, T. Coglianò, R. Vitiello, S. Leveneur, M. Di Serio. Kinetic study of Amberlite IR120 catalyzed acid esterification of levulinic acid with ethanol: From batch to continuous operation. *Chemical Engineering Journal* **2020**, 401, 126126.
 68. F. de Luca Bossa, L. Verdolotti, V. Russo, P. Campaner, A. Minigher, G.C. Lama, L. Boggioni, R. Tesser, M. Lavorgna. Upgrading Sustainable Polyurethane Foam Based on Greener Polyols: Succinic-Based Polyol and Mannich-Based Polyol. *Materials* **2020**, 13(14), 3170.
 69. V. Russo*, C. Rossano, E. Salucci, R. Tesser, T. Salmi, M. Di Serio. Intraparticle diffusion model to determine the intrinsic kinetics of ethyl levulinate synthesis promoted by Amberlyst-15. *Chemical Engineering Science* **2020**, 228, 115974.

70. R. Suerz, K. Eränen, N. Kumar, J. Wärnå, V. Russo, M. Peurla, A. Aho, D.Yu. Murzin, T. Salmi. Application of microreactor technology to dehydration of bio-ethanol. *Chemical Engineering Science* **2021**, 229, 116030.
71. R. Tesser, V. Russo, E. Santacesaria, W. Hreczuch, M. Di Serio. Alkoxylation for Surfactant Productions: Toward the Continuous Reactors. *Front. Chem. Eng.* **2020**, 2, 7.
72. V. Russo*, H. Grénman, T. Coglianò, R. Tesser, T. Salmi. Advanced Shrinking Particle Model for Fluid-Reactive Solid Systems. *Front. Chem. Eng.* **2020**, 2, 577505.
73. A. Aho, S. Engblom, K. Eränen, V. Russo, P. Mäki-Arvela, N. Kumar, J. Wärnå, T. Salmi, D.Yu. Murzin. Glucose transformations over a mechanical mixture of ZnO and Ru/C catalysts: product distribution, thermodynamics and kinetics. *Chemical Engineering Journal* **2020**, 405, 126945.
74. E. Santacesaria, R. Turco, V. Russo, R. Tesser, M. Di Serio. Soybean Oil Epoxidation: Kinetics of the Epoxide Ring Opening Reactions. *Processes* **2020**, 8, 1134.
75. V. Russo, M. Hmoudah, F. Broccoli, M.R. Iesce, O.-S. Jung, M. Di Serio. Applications of MOFs in wastewater treatment: a review on adsorption and photodegradation. *Front. Chem. Eng.* **2020**, 2, 1-13.
76. V. Russo, F. Taddeo, T. Coglianò, R. Vitiello, R. Esposito, R. Tesser, T. Salmi, M. Di Serio. Investigation of the intrinsic reaction kinetics and the mass transfer phenomena of nonanoic acid esterification with 2-ethylhexanol promoted by Sulfuric acid or Amberlite IR120. *Chemical Engineering Journal* **2020**, 408, 127236.
77. F. Taddeo, R. Esposito, V. Russo*, M. Di Serio. Kinetic Modeling of Solketal Synthesis from Glycerol and Acetone Catalyzed by an Iron(III) Complex. *Catalysts* **2021**, 11 (83), 1-12.
78. M. Di Serio, V. Russo, E. Santacesaria, R. Tesser. The evolution of the fed batch ethoxylation reactors to produce the non-ionic surfactants. *Front Chem. Eng.* **2021**, 3, 1-8.
79. E. Santacesaria, R. Turco, V. Russo, M. Di Serio, R. Tesser. Kinetics of Soybean Oil Epoxidation in a Semibatch Reactor. *Industrial & Engineering Chemistry Research* **2020**, 59, 21700-21711.
80. D. Ruiz, R.J. Chimentão, H. Oliva, V. Russo, J. Llorca, J.L.G. Fierro, P. Mäki-Arvela, D.Y. Murzin, D. Ruiz. Catalytic Transformation of Biomass-Derived 5-Hydroxymethylfurfural over Supported Bimetallic Iridium-Based Catalysts. *The Journal of Physical Chemistry C* **2021**, 125(18), 9657-9678.
81. T. Salmi, V. Russo, A. Freites Aguilera. Modelling of the interaction of kinetics and external transport phenomena in structured catalysts: The effect of reaction kinetics, mass transfer and channel size distribution in solid foams. *Chemical Engineering Science* **2021**, 244, 116815.
82. Y. Meng, F. Taddeo, A. Freites Aguilera, X. Ca, V. Russo, P. Tolvanen, S. Leveneur. The Lord of the Chemical Rings: Catalytic Synthesis of Important Industrial Epoxide Compounds. *Catalysts* **2021**, 11(7), 765.
83. M. Alvear, M.E. Fortunato, V. Russo, K. Eränen, M. Di Serio, J. Lehtonen, S. Rautiainen, D. Murzin, T. Salmi. Continuous Liquid-Phase Epoxidation of Ethylene with Hydrogen Peroxide on a Titanium-Silicate Catalyst. *Industrial & Engineering Chemistry Research* **2021**, 60(26), 9429-9436.
84. E. Kholkina, N. Kumar, K. Eränen, V. Russo, J. Rahkila, M. Peurla, J. Wärnå, J. Lehtonen, D.Y. Murzin. Carboxymethylation of cinnamylalcohol with dimethyl carbonate over the slag-based catalysts. *Reaction Kinetics, Mechanisms and Catalysis* **2021**, 133(2), 601-630.
85. E. Salucci, V. Russo*, T. Salmi, M. Di Serio, R. Tesser. Intraparticle model for non-uniform active phase distribution catalysts in a batch reactor. *ChemEngineering* **2021**, 5(3), 38.
86. R. Vitiello, F. Taddeo, V. Russo, R. Turco, A. Buonerba, A. Grassi, M. Di Serio, R. Tesser. Production of sustainable biochemicals by means of esterification reaction and heterogeneous acid catalysts. *ChemEngineering* **2021**, 5(3), 46.
87. R. Turco, R. Tesser, V. Russo, T. Coglianò, M. Di Serio, R. Santacesaria. Epoxidation of Linseed Oil by Performic Acid Produced In Situ. *Industrial & Engineering Chemistry Research* **2021**, 60(46), 16607-16618.
88. C. Rossano, C.L. Pizzo, R. Tesser, M. Di Serio, V. Russo*. Reactive chromatography applied to ethyl levulinate synthesis: A proof of concept. *Processes* **2021**, 9(9), 1684.
89. M. Alvear, M.E. Fortunato, V. Russo*, T. Salmi, M. Di Serio. Modelling of transient kinetics in trickle bed reactors: Ethylene oxide production via hydrogen peroxide. *Chemical Engineering Science* **2021**, 248, 117156.
90. S. Haase, P. Tolvanen, V. Russo*. Process Intensification in Chemical Reaction Engineering. *Processes* **2022**, 10(1), 99.
91. M. Melchiorre, R. Esposito, V. Russo, M. Di Serio, M.E. Cucciolito, F. Ruffo. Solvent-free direct esterification of acrylic acid with 2-ethylhexyl alcohol using simple Zn(II) catalysts. *Inorganica Chimica Acta* **2022**, 534(1), 120821.
92. A. Sadovnikov, O. Arapova, V. Russo, A. Maximov, D. Murzin, E. Naranov. Synergy of acidity and morphology of micro-mesoporous materials in solid-acid alkylation of toluene with 1-decene. *Industrial & Engineering Chemistry Research* **2022**, 61(5), 1994-2009.
93. T. Salmi, V. Russo*, A. Aguilera, P. Tolvanen, J. Wärnå, M. Di Serio, R. Tesser, T. Coglianò, S. Leveneur, K. Eränen. A new perspective on vegetable oil epoxidation modeling: reaction and mass transfer in a liquid-liquid-solid system. *AIChE Journal* **2022**, 68(5), 1-14.
94. T. Coglianò, V. Russo*, R. Turco, E. Santacesaria, M. Di Serio, T. Salmi, R. Tesser. Revealing the role of Stabilizers in H₂O₂ for the Peroxyformic Acid Synthesis and Decomposition Kinetics. *Chemical Engineering Science* **2022**, 251, 117488.

95. E. Santacesaria, R. Tesser, V. Russo. Special Issue on “Industrial Chemistry Reactions: Kinetics, Mass Transfer and Industrial Reactor Design”. *Processes* **2022**, 10, 411.
96. M. Toscanesi, V. Russo*, A. Medici, A. Giarra, M. Hmoudah, M. Di Serio, M. Trifuoggi. Heterogeneous photodegradation for abatement of recalcitrant 2 COD in synthetic tanning wastewater. *Chemengineering* **2022**, 6, 25.
97. S. Esposito, B. Silvestri, C. Rossano, V. Vermile, C. Imparato, M. Manzoli, B. Bonelli, V. Russo, E.M. Gaigneaux, A. Aronne, M. Di Serio. The Role of Metallic and Acid Sites of Ru-Nb-Si Catalysts in the Transformation of Levulinic Acid to γ -Valerolactone. *Applied Catalysis B: Environmental* **2022**, 310, 121340.
98. A. Najarneshadmashtadi, C. Braz, V. Russo*, K. Eränen, H. Matos, T. Salmi. Modeling of three-phase continuously operating open-cell foam catalyst packings: sugar hydrogenation to sugar alcohols. *AIChE Journal* **2022**, 68:e17732, 1-15.
99. F. Taddeo, R. Vitiello, R. Tesser, M. Melchiorre, K. Eränen, T. Salmi, V. Russo*, M. Di Serio. Nonanoic acid esterification with 2-ethylhexanol: from batch to continuous operation. *Chemical Engineering Journal* **2022**, 444, 136572.
100. V. Russo*, H. Grénman, T. Salmi, R. Tesser. A novel approach to inulin depolymerization: a Monte Carlo based model. *Chemical Engineering Science* **2022**, 256, 117712.
101. N. Gallucci, M. Hmoudah, E. Martinez, A. El-Qanni, M. Di Serio, L. Paduano, G. Vitiello, V. Russo*. Photodegradation of Ibuprofen using CeO₂. Nanostructured Materials: Reaction Kinetics, Modeling, and Thermodynamics. *Journal of Environmental Chemical Engineering* **2022**, 10, 107866.
102. M. Hmoudah, A. El-Qanni, S. Abuhatab, N.N. Marei, A. El-Hamouz, B.J. Abu Tarboush, I.H. Alsurakji, H.M. Baniowda, V. Russo, M. Di Serio. Competitive Adsorption of Alizarin Red S and Bromocresol Green from Aqueous Solutions using Brookite TiO₂ Nanoparticles: Experimental and Molecular Dynamics Simulation. *Environmental Science and Pollution Research* **2022**, 29(51), 77992-78008.
103. V. Russo*, S. Haase, P. Tolvanen. Process Intensification in Chemical Reaction Engineering. *Processes* **2022**, 10, 1294.
104. L. Mastroianni, Vajglová, K. Eränen, M. Peurla, M. Di Serio, D. Yu. Murzin, V. Russo, T. Salmi. Microreactor technology in experimental and modelling study of alcohol oxidation on nanogold. *Chemical Engineering Science* **2022**, 260, 117920.
105. P. Tolvanen, H. Grénman, R. Tesser, V. Russo. Editorial: Understanding the behavior of reactive solid materials in chemical processes. *Frontiers in Chemical Engineering* **2022**, 4:976600, 1-2.
106. M. Melchiorre, D. Lentini, M.E. Cucciolito, F. Taddeo, M. Hmoudah, M. Di Serio, F. Ruffo, V. Russo*, R. Esposito. Sustainable Ketalization of Glycerol with Ethyl Levulinate Catalyzed by the Iron(III)-Based Metal-Organic Framework MIL-88A. *Molecules* **2022**, 27, 7229.
107. A. El-Qanni, M. Alsayed, I.H. Alsurakji, M. Najjar, D. Odeh, S. Najjar, M. Hmoudah, M. Zubair, V. Russo, M. Di Serio. A Technoeconomic Assessment of Biological Sludge Dewatering using Thermal Rotary Dryer: A Case Study of Design Applicability, Economics and Managerial Feasibility Biomass Conversion and Biorefinery. *Biomass Conversion and Biorefinery* **2022**.
108. T. Coglianò, R. Turco, V. Russo, M. Di Serio, R. Tesser. ¹H NMR-based analytical method: A valid and rapid tool for the epoxidation processes. *Industrial Crops and Products* **2022**, 18615, 115258.
109. M. Hmoudah, A. El-Qanni, R. Tesser, R. Esposito, A. Petrone, O.-K. Jung, T. Salmi, V. Russo*, M. Di Serio. Assessment of the robustness of MIL-88A in an aqueous solution: Experimental and DFT investigations. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology* **2023**, 288, 116179.
110. M. Alvear, F. Orabona, K. Eränen, J. Lehtonen, S. Rautiainen, M. Di Serio, V. Russo, T. Salmi. Epoxidation of light olefin mixtures with hydrogen peroxide on TS-1 in a laboratory-scale trickle bed reactor: Transient experimental study and mathematical modelling. *Chemical Engineering Science* **2023**, 269, 118467.
111. E.R. Naranov, A.A. Sadovnikov, O.V. Arapova, A.L. Bugaev, O.A. Usoltsev, D.N. Gorbunov, V. Russo, D.Y. Murzin, A.L. Maximov. Mechanistic insights on Ru nanoparticle in situ formation during hydrodeoxygenation of lignin-derived substances to hydrocarbons. *Catalysis Science & Technology* **2023**, 13, 1571-1583.
112. F. Taddeo, R. Vitiello, V. Russo, R. Tesser, R. Turco, M. Di Serio. Biodiesel Production from Waste Oil Catalysed by Metal-Organic Framework (MOF-5): Insights on Activity and Mechanism. *Catalysts* **2023**, 13(3), 503.
113. F. Broccoli, R. Paparo, M.R. Iesce, M. Di Serio, V. Russo*. Heterogeneous Photodegradation Reaction of Phenol Promoted by TiO₂: A Kinetic Study. *ChemEngineering* **2023**, 7(27), 1-16.
114. M. Hachhach, V. Russo, D.Y. Murzin, T. Salmi. Dynamic modelling of trickle bed reactor: Case study of arabinose oxidation. *Powder Technology* **2023**, 425, 118608.
115. V. Russo, R. Tesser, W. Hreczuch, M. Di Serio. Design of a continuous device for Ethoxylation Reaction: the choice between micro and milli scale. *Chemical Engineering Research and Design* **2023**, 194, 550-562.
116. M.E. Cucciolito, M. Di Serio, R. Esposito, M. Melchiorre, F. Ruffo, V. Russo, R. Tesser, R. Turco, R. Vitiello. Catalysis for Oleochemical Platforms, *European Journal of Inorganic Chemistry* **2023**, e202200783, 1-18.
117. M. Hmoudah, M.E. Fortunato, R. Paparo, M. Trifuoggi, A. El-Qanni, R. Tesser, D.Y. Murzin, T. Salmi, V. Russo*, M. Di Serio. Ibuprofen Adsorption on Activated Carbon: Thermodynamic and Kinetic Investigation via

- the Adsorption Dynamic Intraparticle Model (ADIM). *Langmuir* **2023**.
118. L. Mastroianni, T. Weckman, K. Eränen, V. Russo, D.Yu. Murzin, K. Honkala, T. Salmi. Oxidative dehydrogenation of alcohols on gold: An experimental and computational study on the role of water and the alcohol chain length. *Journal of Catalysis* **2023**, 425, 233-244.
 119. L. Mastroianni, M. Di Serio, T. Salmi, V. Russo*. Comprehensive reverse flow reactor model for fluid-solid systems. *Chemical Engineering Science* **2023**.
 120. E. Santacesaria, R. Tesser, V. Russo. Industrial Chemistry Reactions: Kinetics, Mass Transfer and Industrial Reactor Design (II). *Processes* **2023**, 11(7), 1880.

Conference papers (Scopus source)

1. E. Santacesaria, M. Di Serio, R. Tesser, R. Turco, M. Tortorelli, V. Russo. Biodiesel process intensification in a very simple microchannel device. *Institution of Chemical Engineers Symposium Series* **2011**, 157, 122-130. EPIC2011.
2. V. Russo, R. Tesser, M. Di Serio, E. Santacesaria. A new kinetic biphasic approach applied to biodiesel process intensification. *DGMK Tagungsbericht* **2012**, 2012(3), 217-225. DGMK2012.
3. E. Salzano, V. Russo, R. Tesser, M. Di Serio. Runaway reaction in the epoxydation of vegetable oil. *21st International Congress of Chemical and Process Engineering, CHISA 2014 and 17th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES* **2014**, 4, 1946.
4. V. Russo, T. Kilpiö, M. Di Serio, R. Tesser, E. Santacesaria, T. Salmi. Dynamic non isothermal trickle bed reactor with both internal diffusion and heat conduction: Arabinose hydrogenation as a case study. *21st International Congress of Chemical and Process Engineering, CHISA 2014 and 17th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES* **2014**, 1, 6.
5. T. Kilpiö, E. Behravec, V. Russo, T. Salmi. Modelling of the laboratory-scale packed bed reactor for partial gas-phase oxidation of alcohol using Au nanoparticles as the catalyst, *CHISA 2016 and 19th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES* **2016**, 1, 158.
6. V. Russo, R. Tesser, M. Trifuoggi, M. Di Serio. Fluid-solid adsorption from batch to continuous. *CHISA 2016 and 19th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES* **2016**, 1, 314-315.
7. M. Stanzione, V. Russo, A. Sorrentino, R. Tesser, M. Lavorgna, M. Oliviero, M. Di Serio, S. Iannace, L. Verdolotti. Bio-based polyurethane foams from renewable resources. *AIP Conference Proceedings* **2016**, 1736. TOP2016.
8. R. Turco, M. Di Serio, M. Mazzocca, V. Russo, R. Tesser, R. Vitiello, D. Cimini, C. Schiraldi. Production of succinic acid from arundo donax hydrolysate for bio-based polymers synthesis. *DGMK Tagungsbericht* **2017**, 2017(2), 83-88. DGMK2017

Papers on Italian Journals

1. V. Russo, N. Scotti, T. Tabanelli, R. Cucciniello, C. Antonetti. PRIN Levante 2020: Valorizzazione dell'acido levulinico attraverso tecnologie innovative. *La Chimica e L'Industria* **2022**, 5, 23-27.

Preprints

1. T. Salmi, V. Russo*, A. Freitas, P. Tolvanen, J. Wärnå, M. Di Serio, R. Tesser, T. Coglianò, S. Leveneur, K. Eränen. A new perspective on vegetable oil epoxidation modeling: reaction and mass transfer in a liquid-liquid-solid system. *Authorea* **2021**, 10.22541/au.162603786.65718427/v1.
2. A. Najarneshad mashhadi, C. Braz, V. Russo*, K. Eränen, H. Matos, T. Salmi. Modeling of three-phase continuously operating open-cell foam catalyst packings: sugar hydrogenation to sugar alcohols. *Authorea* **2021**, 10.22541/au.164014597.72568034/v1.

Book chapters (Scopus source)

1. V. Russo, R. Tesser, M. Di Serio. Advances in Catalysts for Biofuels Production Processes. M.R. Riazi, D. Chiamonti, Biofuels Production and Processing Technology, 511-532. CRC Press **2017**. DOI: 10.1201/9781315155067.

Book chapters

1. T. Kilpiö, V. Russo, K. Eränen, T. Salmi. Design and modelling of laboratory scale three-phase fixed bed reactors. B. Saha, Catalytic Reactors. De Gruyter Textbook **2015**.
2. V. Russo, R. Tesser, M. Di Serio. Advances in Catalysts for Biofuels Production Processes. M.R. Riazi, D. Chiaramonti, Biofuels Production and Processing Technology. CRC Press **2017**.
3. R. Tesser, R. Vitiello, V. Russo, R. Turco, M. Di Serio, L. Lin, C. Li. Oleochemistry products. Springer Nature **2020**.
4. M. Di Serio, V. Russo. Elementi di reattoristica chimica. In: Fondamenti di Chimica Industriale. Zanichelli **2022**.
5. C.G. Braz, A. Najarneshadimashhadi, V. Russo, K. Eränen, H.A. Matos, T. Salmi. Dynamic modelling of non-isothermal open-cell foam catalyst packings: selective sugar hydrogenation to sugar alcohols as a case study. *Computer Aided Chemical Engineering* **2022**, 51, 73-78.

Books

1. R. Tesser, V. Russo. Advanced Reactor Modeling with MATLAB. De Gruyter **2021**. ISBN-10: 3110632195. DOI: <https://doi.org/10.1515/9783110632927>.
2. R. Tesser, V. Russo. Modellazione avanzata di reattori chimici con Matlab. Casi studio con esempi risolti. In riga edizioni **2021**. EAN: 9788893643061.
3. E. Santacesaria, R. Tesser, V. Russo. Industrial Chemistry Reactions. Kinetics, Mass Transfer and Industrial Reactor Design. Processes **2022**. ISBN: 978-3-0365-4155-6. DOI: <https://doi.org/10.3390/books978-3-0365-4156-3>.

Papers about didactics

1. N. Brouwer, I. Maciejowska, A. Lis, C. Machado, S. Grecea, J. Kärkkäinen, M. Niemelä, K. Kranjc, Č. Podlipnik, S. Prashar, V. Russo, O. Tarallo. The Need for STEM Continuous Professional Development at European Universities. *VIRT&L-COMM* **2020**, 21. ISSN: 2279-8773.
2. O. Tarallo, V. Russo. STEM-CPD@Euni. Un progetto per lo sviluppo professionale continuo dei docenti delle discipline STEM nelle università europee. *Chimica nella Scuola* **2021**, 3, 4-7.
3. N. Brouwer, I. Maciejowska, A. Lis, S. Grecea, J. Kärkkäinen, M. Niemelä, K. Kranjc, Č. Podlipnik, S. Prashar, V. Russo, O. Tarallo. Implementation status of the STEM-CPD@EUniErasmus plus project. *VIRT&L-COMM* **2022**, 23. ISSN: 2279-8773.

Patents

1. G. Roviello, O. Tarallo, V. Russo, M. Di Serio, L. Ricciotti, C. Ferone, R. Cioffi. Impiego Di Materiali Ibridi Organico-Inorganici Nell'adsorbimento Di Inquinanti Organici Emergenti **2021**, 202021000002360.

Conferences contributes

Conference organization

1. Member of the organizing committee of the “XIX Congresso Nazionale della Divisione di Chimica Industriale della Società Chimica Italiana - 14-16 September **2015** Salerno, Italy.
2. Member of the organizing committee of the “9th International Symposium on Nano & Supramolecular Chemistry” (ISNSC) – 4-7 September **2017** Naples, Italy.
3. Member of the organizing committee of the “XIX Congresso Nazionale della Divisione di Chimica Industriale della Società Chimica Italiana” – 27 August **2019** Salerno, Italy.
4. Member of the scientific committee of the “1st STEM-CPD Summer School” – 10-15 October **2021** Krakow, Poland.
5. Member of the scientific and organizing committee of the “2nd STEM-CPD Summer School” – 2-7 October **2022** Naples, Italy.

Chairman activity

1. Chair activity at CHISA 2016 - 27-31 August **2016** Prague, Czech Republic.
2. Chair activity at CAMURE 2021 – 22-24 March **2021** Online Congress.
3. Chair activity at CHISA 2022 - 21-25 August **2022** Prague, Czech Republic.

Keynote presentations

1. V. Russo, A. Freitas Aguilera, T. Salmi. Shallow beds are not plug flow reactors – analysis of kinetic data in the presence of axial dispersion effects. CHISA 2022, Prague (CZ), 21-25 August 2022.

Oral presentations

1. E. Santacesaria, M. Di Serio, R. Tesser, R. Turco, M. Tortorelli, V. Russo. Biodiesel process intensification in a very simple microchannel device. Abstracts book of European process intensification conference (EPIC). Manchester (UK), 20-23 June **2011**.
2. V. Russo, R. Turco, M. Di Serio, R. Tesser, E. Santacesaria. A Biphasic Kinetic Approach to Biodiesel Production. Abstracts book of XXIV SCI Congress, Lecce (IT), 11-16 September **2011**.
3. V. Russo, R. Tesser, E. Santacesaria, M. Di Serio. Kinetics of Propene Oxide Production via Hydrogen Peroxide with TS-1. Abstracts book of XVII National Congress of Catalysis GIC 2013 and XI National Congress of Zeolites Science and Technology, Riccione (IT), 15-18 September **2013**.
4. V. Russo, T. Kilpiö, M. Di Serio, T. Salmi. Modelling of microreactors for ethylene oxide synthesis. IMRET 13 "International Conferences on Microreaction Technology" - Budapest, Hungary in June 23-25 **2014**.
5. E. Salzano, V. Russo, R. Tesser, M. Di Serio. Facing the hazards of biphasic, unstable, highly exothermic process: the case of epoxidation of vegetable oils. “15th International Symposium on Loss Prevention and Safety Promotion in the Process Industries” Freiburg, Germany in 5-8 June **2016**.
6. V. Russo, R. Tesser, M. Trifuoggi, M. Di Serio. Fluid-solid adsorption from batch to continuous. CHISA 2016 - 27-31 August **2016** Prague, Czech Republic.
7. C. de Araujo Filho, D. Mondal, T. Kilpiö, V. Russo, K. Eränen, T. Salmi. Continuous technology in the valorization of glycerol: the flow pattern changes radically inside the bubble column. 14th Multiphase Flow Conference & Short Course, Dresden (D) in 8-10 November **2016**.
8. V. Russo, R. Tesser, R. Vitiello, R. Turco, M. Di Serio. Kinetics of Propene Oxide Production via Hydrogen Peroxide with TS-1. EUROPACAT 2017, Florence (IT) 27-31 August **2017**.
9. V. Russo, R. Vitiello, R. Turco, R. Tesser, M. Di Serio. Levulinic acid esterification kinetics with ethanol in the presence of Amberlyst-15. XXVI Congresso Nazionale della Società Chimica Italiana, Paestum (IT), 10-14 September **2017**.
10. V. Russo, R. Tesser, R. Turco, R. Vitiello, M. Di Serio. Modelling of chromatographic reactors. ISCRE25, Florence (IT), 20-23 May **2018**.
11. T. Salmi, V. Russo. Modelling of a liquid-liquid-solid-gas system: Hydrogenation of dispersed liquid sodium to sodium hydride. CHISA 2018, Prague (CZ), 24-30 August **2018**.
12. V. Russo, R. Tesser, T. Salmi, M. Di Serio. Chromatographic reactor modelling for esterification/hydrolysis

- reactions. CHISA 2018, Prague (CZ), 24-30 August **2018**.
13. V. Russo, A. Milicia, R. Tesser. Falling film reactors modelling. CHISA 2018, Prague (CZ), 24-30 August **2018**.
 14. V. Russo, F. Broccoli, R. Vitiello, R. Turco, R. Tesser, M. R. Iesce, O.-S. Jung, I.M. Di Serio. Adsorption and heterogeneous photodegradation for the removal of ibuprofen from water. CHISA 2021 Virtually, 15-18 March **2021**.
 15. V. Russo, R. Tesser, T. Salmi, M. Di Serio. Chromatographic reactor modelling. CAMURE 2021 – 22-24 March **2021** Online Congress.
 16. V. Russo, G. Vitiello, R. Tesser, M.R. Iesce, O.-S. Jung, M. Di Serio. Ibuprofen adsorption and heterogeneous photodegradation from water. ICheaP 15, Naples (IT), 23-26 May **2021**.
 17. V. Russo, C. Rossano, R. Tesser, T. Salmi, M. Di Serio. Kinetics of ethyl levulinate synthesis in a chromatographic reactor. XXIV International Conference on Chemical Reactors (ChemReactor-24), 12-17 September **2021**, virtual conference.
 18. V. Russo, M. Hmoudah, R. Vitiello, R. Turco, R. Tesser, M. Di Serio. Heterogeneous photodegradation for the removal of ibuprofen from water. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
 19. V. Russo, F. Taddeo, R. Esposito, R. Tesser, M. Di Serio. Catalytic screening and kinetic investigation of ethyl levulinate ketalization with glycerol. CHISA 2022, Prague (CZ), 21-25 August 2022.
 20. V. Russo, F. Taddeo, R. Esposito, R. Tesser, M. Di Serio. Catalytic screening and kinetic investigation of ethyl levulinate ketalization with glycerol. GIC 2022, XXII National Congress on Catalysis. Riccione (IT), 11-14 September 2022.
 21. V. Russo, A. Freitas Aguilera, T. Salmi. Shallow beds are not plug flow reactors – analysis of kinetic data in the presence of axial dispersion effects. UCRA 2022, Leamington Spa (UK), 21-23 September 2022.

Poster presentations

1. V. Russo, R. Tesser, M. Di Serio, E. Santacesaria. A New Kinetic Approach Applied to Biodiesel Process Intensification. Abstracts book of DGMK, Berlin (D), 8-10 October **2012**.
2. V. Russo, T. Kilpiö, A.P. Nebreda, M. Di Serio, T. Salmi. Laminar flow reactor for acid hydrolysis of hemicelluloses. IMRET 13 "International Conferences on Microreaction Technology" - Budapest, Hungary in June 23-25, **2014**.
3. V. Russo, L. Minieri, R. Tesser, A. Aronne, M. Di Serio. Ru-based catalysts for γ -valerolactone synthesis. XIX Congresso Divisione Chimica Industriale – Salerno (IT), 14-16 September **2015**.
4. V. Russo, R. Tesser, D. Masiello, M. Trifuoggi, M. Di Serio. Fluid-solid adsorption from batch to continuous: methylene blue on silica as a case study. ECCE 10, "10th European Congress of Chemical Engineering" – Nice (FR), 27 September - 1 October **2015**.
5. R. Tesser, M. Di Serio, V. Russo, S. Iannace, E. Di Maio, M. Oliviero. Bio-based Aliphatic Polyesters for Foams Formulations. Biofoams 2015, "5th International Conference on Biofoams" - Sorrento, Italy in 13-16 October **2015**.
6. M. Di Serio, V. Russo, R. Tesser, R. Turco, R. Vitiello. Niobia based catalysts for oxidation reaction. 9th ISNSC, Napoli (IT), 4-9 September **2017**.
7. V. Russo, R. Tesser, M. Di Serio. Modelling of chromatographic reactors. WCCE-10, Barcelona (ES), 1-5 October **2017**.
8. V. Russo, T. Salmi, C. Carletti, T. Kilpiö, D. Murzin, T. Westerlund, R. Tesser, H. Grénman. Application of film theory on the limestone dissolution. WCCE-10, Barcelona (ES), 1-5 October **2017**.
9. V. Russo, R. Tesser, M. Di Serio. A rigorous approach for the determination of ternary diffusion coefficients by Taylor dispersion method. WCCE-10, Barcelona (ES), 1-5 October **2017**.
10. V. Russo, A. Milicia, R. Tesser. Falling film reactor modelling for sulfonation reactions. ISCRE25, Florence (IT), 20-23 May **2018**.
11. V. Russo, R. Turco, R. Vitiello, R. Tesser, M. Di Serio. Levulinic acid esterification kinetics with ethanol catalyzed by Amberlyst-15. ISCRE25, Florence (IT), 20-23 May **2018**.
12. V. Russo, R. Tesser, T. Salmi, F. Sandelin, M. Di Serio. Ethyl levulinate synthesis kinetics promoted by Amberlyst-15 catalyst. CHISA 2018, Prague (CZ), 24-30 August **2018**.
13. V. Russo, C. Salvi, A. Giarra, M. Toscanesi, M. Trifuoggi, R. Tesser, M. Di Serio. Fluoride adsorption for wastewater treatment. XXI Congresso Divisione Chimica Industriale Salerno (IT), 27 August **2019**.
14. V. Russo, S. Esposito, B. Silvestri, B. Bonelli, R. Tesser, A. Aronne, M. Di Serio. Catalytic hydrogenations to high value-added products. XXI Congresso Divisione Chimica Industriale Salerno (IT), 27 August **2019**.
15. V. Russo, F. de Luca Bossa, R. Tesser, M. Oliviero, M. Di Serio, L. Verdolotti. Bio-based Rigid Polyurethane foams from renewable resources. Chemistry meets Industry & Society (CIS2019), Salerno (IT), 28-30 August **2019**.

16. V. Russo, R. Tesser, T. Salmi, M. Di Serio. Dynamic Adsorptive Chromatographic Reactor Model. ECCE12, Florence (IT), 15-19 September **2019**.
17. V. Russo, C. Rossano, R. Tesser, T. Salmi, M. Di Serio. Kinetics of ethyl levulinate production promoted by Amberlite IR120: from batch to continuous operation. Catbior, Turku (FI), 23-27 September **2019**.
18. V. Russo, F. Taddeo, R. Esposito, R. Tesser, M. Di Serio. Kinetic investigation of ethyl levulinate ketalization with glycerol. XXII Congresso Nazionale della Divisione di Chimica Industriale, Catania (IT), 7-8 November **2022**.

Other conference participations

1. E. Santacesaria, M. Di Serio, R. Tesser, V. Russo, R. Turco, M. Tortorelli. A new simple microchannels device for intensifying biodiesel production. In XIX International Conference on Chemical Reactors CHEMREACTOR-19. Wien (AU), 05-09 September **2010**.
2. R. Tesser, E. Santacesaria, R. Turco, V. Russo, M. Di Serio. Epoxidation of soybean oil: kinetic study and modelling in fed-batch and continuous reactors. Abstracts book of Catalysis in Multiphase Reactors CAMURE-8 International Symposium on Multifunctional Reactors ISMR-7. Naantali (FI), 22-25 May **2011**.
3. E. Santacesaria, R. Turco, M. Tortorelli, V. Russo, M. Di Serio, R. Tesser. Biodiesel process intensification by using static mixers tubular reactors. Abstracts book of Catalysis in Multiphase Reactors CAMURE-8 International Symposium on Multifunctional Reactors ISMR-7. Naantali (FI), 22-25 May **2011**.
4. E. Santacesaria, M. Di Serio, R. Tesser, R. Turco, V. Russo. Key factors in the process intensification of the soybean oil epoxidation. Abstracts book of European process intensification conference (EPIC). Manchester (UK), 22-23 June **2011**.
5. E. Santacesaria, M. Di Serio, R. Tesser, R. Turco, V. Russo. Biodiesel process intensification in a very simple microchannel device. Abstracts book of European process intensification conference (EPIC). Manchester (UK), 22-23 June **2011**.
6. E. Santacesaria, R. Tesser, M. Di Serio, R. Vitiello, V. Russo. Chlorohydrins Production by Glycerol Chlorination. Abstracts book of XXIV SCI Congress, Lecce (IT), 11-16 September **2011**.
7. R. Turco, V. Russo, M. Di Serio, R. Tesser, E. Santacesaria. Epoxidation of Soybean oil: Kinetic study and modelling in fed-batch and continuous reactors. Abstracts book of XXIV SCI Congress, Lecce (IT), 11-16 September **2011**.
8. R. Tesser, V. Russo, R. Turco, M. Di Serio, E. Santacesaria. Biocompatible lubricants starting from epoxidized soybean. Abstracts book of Congresso Nazionale della Divisione di Chimica Industriale della Società Chimica Italiana, Firenze (IT), 10-14 June **2012**.
9. R. Turco, V. Russo, M. Di Serio, R. Tesser, E. Santacesaria. Epoxidation of soybean oil catalyzed by acid sulphonated resins. Abstracts book of Congresso Nazionale della Divisione di Chimica Industriale della Società Chimica Italiana, Firenze (IT), 10-14 June **2012**.
10. E. Salzano, A.G. Agreda, V. Russo, M. Di Serio, E. Santacesaria. The Role of Safety in the Epoxydation of Soybean Oil in Fed-Batch Reactor. CISAP-5. 5th International Conference on Safety & Environment in. Process & Power Industry - Milan 3-6 June **2012**.
11. R. Turco, R. Vitiello, V. Russo, R. Tesser, E. Santacesaria, M. Di Serio. Selective Epoxidation of Soybean Oil using Acid Ionic Exchange Resins in Continuous Reactor. Poster session of XVII National Congress of Catalysis GIC 2013 and XI National Congress of Zeolites Science and Technology, Riccione (IT), 15-18 September **2013**.
12. R. Vitiello, R. Turco, R. Tesser, V. Russo, M. Di Serio, E. Santacesaria. Glycerol Chlorination in Gas-Liquid Semibatch Reactor: New Catalysts for Chlorohydrins Production. Abstracts book of XVII National Congress of Catalysis GIC 2013 and XI National Congress of Zeolites Science and Technology, Riccione (IT), 15-18 September **2013**.
13. E. Salzano, V. Russo, R. Tesser, M. Di Serio. Best operating conditions for the epoxydation of vegetable oil in fed-batch reactor. CHEMREACTOR-21 - 22-25 September **2014** in Delft, NL.
14. E. Salzano, V. Russo, R. Tesser, M. Di Serio. Runaway reaction in the epoxydation of vegetable oil. CHISA 2014 - 23-27 August **2014** Prague, Czech Republic.
15. V. Russo, T. Kilpiö, M. Di Serio, R. Tesser, E. Santacesaria, T. Salmi. Dynamic non isothermal trickle bed reactor with both internal diffusion and heat conduction: arabinose hydrogenation as a case study. CHISA 2014 - 23-27 August **2014** Prague, Czech Republic.
16. R. Vitiello, R. Tesser, R. Turco, V. Russo, S. Andini, M. Di Serio. Synthesis of biolubricants by esterification using new heterogeneous catalysts. XIX Congresso Divisione Chimica Industriale - Salerno, Italy in 14-16 September **2015**.
17. M. Stanzone, V. Russo, A. Sorrentino, R. Tesser, M. Lavorgna, M. Oliviero, M. Di Serio, S. Iannace, L. Verdolotti. Bio-based polyurethane foams from renewable resources. "8th International conference Times of Polymers & Composites" Ischia, Italy in 19-23 June **2016**.

18. R. Vitiello, R. Turco, V. Russo, R. Tesser, M. Di Serio. Loop reactor modeling for lubricants synthesis. In Proceedings of the XXII International Conference on Chemical Reactors CHEMREACTOR-22. London (UK), 19-23 September **2016**.
19. M. Di Serio, V. Russo, L. Minieri, S. Esposito, B. Bonelli, F. Deorsola, B. Silvestri, A. Vergara, A. Aronne. Hydrogenation of levulinic acid in aqueous phase using novel sol-gel Ru-based bifunctional catalysts by sol-gel. EUROPACAT 2017, Florence (IT) 27-31 August **2017**.
20. R. Turco, R. Vitiello, V. Russo, R. Tesser, M. Di Serio. Supported niobium oxides catalysts for methylesters epoxidation reaction. EUROPACAT 2017, Florence (IT) 27-31 August **2017**.
21. R. Vitiello, R. Turco, V. Russo, R. Tesser, A. Buonerba, A. Grassi, M. Di Serio. Sustainable biochemicals production by esterification reaction using a sulfonic resin as catalyst. EUROPACAT 2017, Florence (IT) 27-31 August **2017**.
22. R. Vitiello, R. Turco, V. Russo, M. Di Serio, R. Tesser. Bromobutyl rubber synthesis: influence of the reaction temperature on product distribution. XXVI Congresso Nazionale della Scocietà Chimica Italiana, Paestum (IT), 10-14 September **2017**.
23. R. Turco, M. Di Serio, M. Mazzocca, V. Russo, R. Tesser, R. Vitiello, D. Cimini, C. Schiraldi. Succinic acid Production from Arundo Donaxhydrolysate for bio-based poly(butylene succinate) synthesis. XXVI Congresso Nazionale della Scocietà Chimica Italiana, Paestum (IT), 10-14 September **2017**.
24. R. Turco, M. Di Serio, M. Mazzocca, V. Russo, R. Tesser, R. Vitiello, D. Cimini, C. Schiraldi. Production of Succinic Acid from Arundo Donax Hydrolysate for Bio-based Polymers Synthesis. DGMK, Dresden (D), 9-11 October **2017**.
25. A. Nebreda, V. Russo, T. Salmi, K. Eränen, D. Murzin, H. Grénman. Production of high purity fructose in a continuous reactor employing a heterogeneous catalyst. WCCE-10, Barcelona (ES), 1-5 October **2017**.
26. T. Salmi, V. Russo, T. Aaltonen, V. Sifontes, D. Murzin. Liquid-phase hydration kinetics and mechanism of 1-butene over an acid ion-exchange resin catalyst. WCCE-10, Barcelona (ES), 1-5 October **2017**.
27. T. Kilpiö, Y. Khan, M. Marin, V. Russo, R. Karinen, T. Salmi. Modelling of micro reactor for partial oxidation of butanol using Au/TiO₂ catalyst. WCCE-10, Barcelona (ES), 1-5 October **2017**.
28. T. Salmi, V. Russo, T. Kilpiö, M. Di Serio, J. Hernandez Carucci. Modelling of microreactors in ethylene epoxidation. CHISA 2018, Prague (CZ), 24-30 August **2018**.
29. A. Nebreda, T. Hornbogen, J. Schaaf, G. Hilpmann, V. Russo, M. Di Serio, K. Eränen, D. Y. Murzin, R. Lange, T. Salmi, H. Grénman. Fructose and xylose from inulin and industrial xylan with heterogeneous catalysis – from batch to continuous operation. CHISA 2018, Prague (CZ), 24-30 August **2018**.
30. R. Vitiello, C. Rossano, R. Turco, V. Russo, R. Tesser, I. Russo Krauss, G. D'Errico, M. Di Serio. Synthesis and characterization of acrylate monomers used in the Hydrophobic Alkali Swellable Emulsion (HASE) synthesis. GIC-DiCnIn, Milano (IT), 2-5 September **2018**.
31. C. Rossano, V. Russo, R. Turco, R. Vitiello, R. Tesser, T. Salmi, M. Di Serio. Kinetics of the levulinic acid esterification with ethanol in the presence of Amberlyst-15. XXI Congresso Divisione Chimica Industriale, Salerno (IT), 27 August **2019**.
32. F. Taddeo, V. Russo, R. Esposito, R. Turco, R. Vitiello, R. Tesser, F. Ruffo, M. Di Serio. Kinetic study of solketal formation from glycerol and acetone. XXI Congresso Divisione Chimica Industriale, Salerno (IT), 27 August **2019**.
33. C. Rossano, V. Russo, R. Vitiello, R. Turco, R. Tesser, M. Di Serio. Kinetic study of Amberlite IR-120 catalyzed acid esterification of levulinic acid with ethanol. Chemistry meets Industry & Society (CIS2019), Salerno (IT), 28-30 August **2019**.
34. F. Taddeo, R. Vitiello, V. Russo, R. Esposito, M. Melchiorre, V. Benessere, F. Ruffo, M. Di Serio. Esters from pelargonic acid and their application as green solvents for printing inks. Chemistry meets Industry & Society (CIS2019), Salerno (IT), 28-30 August **2019**.
35. R. Vitiello, V. Russo, R. Turco, F. Taddeo, R. Tesser, A. Buonerba, A. Grassi, M. Di Serio. Sustainable base-lubricant synthesis using heterogeneous catalysts. Chemistry meets Industry & Society (CIS 2019), Salerno (IT), 28-30 August **2019**.
36. R. Tesser, R. Turco, V. Russo, R. Vitiello, M. Di Serio. Bio-lubricants Synthesis from the Epoxidized Oil promoted by Clays: Kinetic modelling. Chemistry meets Industry & Society (CIS2019), Salerno (IT), 28-30 August **2019**.
37. R. Tesser, R. Turco, V. Russo, R. Vitiello, M. Di Serio. Bio-lubricants Synthesis from the Epoxidized Oil promoted by Clays: Kinetic modelling. Chemistry meets Industry & Society (CIS2019), Salerno (IT), 28-30 August **2019**.
38. S. Saeid, V. Russo, P. Tolvanen, N. Kumar, K. Eränen, J. P. Mikkola, T. Salmi. Kinetic and modeling of ibuprofen removal in the absence and presence of heterogeneous catalysts. ECCE 12, Florence (IT), 15-19 September **2019**.
39. F. Taddeo, R. Vitiello, V. Russo, R. Turco, R. Tesser, R. Esposito, V. Benessere, M. Melchiorre, M. Di Serio. Esters from pelargonic acid as green solvents for printing inks. Catbior 2019, Turku (FI), 23-27 September **2019**.

40. R. Vitiello, R. Tesser, R. Turco, V. Russo, Gabriella Compagnone, Elio Santacesaria, Martino Di Serio. Reaction temperature influence on products distribution of bromobutyl rubber synthesis. IRC 2019, London (UK), 3-5 September **2019**.
41. P. Tolvanen Pasi, V. Russo, K. Eranen, T. Salmi. Methanol Synthesis in a Stirred Batch Reactor - Application of the Total Pressure Method and Reaction-Diffusion Modelling. ECCE12, Florence (IT), 15-19 September **2019**.
42. S. Saeid, V. Russo, P. Tolvanen, N. Kumar, J.-P. Mikkola, T. Salmi Tapio. Kinetics and Modeling of Ibuprofen Removal in the Absence and Presence of Heterogeneous Catalysts. ECCE12, Florence (IT), 15-19 September **2019**.
43. C. Rossano, V. Russo, R. Vitiello, R. Turco, R. Tesser, T. Salmi, M. Di Serio. Catalytic screening for levulinic acid esterification reaction with different alkyl alcohols, Catbior, Turku (FI), 23-27 September **2019**.
44. R. Vitiello, R. Turco, V. Russo, F. Taddeo, R. Tesser, A. Buonerba, A. Grassi, M. Di Serio. Sustainable esters as base-lubricant using heterogeneous catalysts. CatBior 2019, Turku (FI), 23-27 September **2019**.
45. M. Di Serio, V. Russo, S. Esposito, B. Silvestri, B. Bonelli, A. Vergara, A. Aronne. Sol-gel Ru-based catalysts for hydrogenation reactions. CatBior 2019, Turku (FI), 23-27 September **2019**.
46. V. Russo, R. Turco, R. Vitiello, R. Tesser, M.R. Iesce, O.-S. Jung, M. Di Serio. About the use of Metal-Organic Frameworks (MOF) for water treatment. CatBior 2019, Turku (FI), 23-27 September **2019**.
47. R. Turco, R. Vitiello, V. Russo, M. Di Serio, R. Tesser, Sustainable lubricant basestocks from epoxidized vegetable oils. CatBior 2019, Turku (FI), 23-27 September **2019**.
48. R. Turco, R. Vitiello, V. Russo, M. Di Serio, R. Tesser, Epoxidation of Cynara Carduculus seed oil with hydrogen peroxide. CatBior 2019, Turku (FI), 23-27 September **2019**.
49. V. Russo, R. Turco, R. Vitiello, R. Tesser, M.R. Iesce, O.-S. Jung, M. Di Serio. About the use of Metal-Organic Frameworks (MOF) for water treatment. ISNSC11, Quing Yang (CN), 12-16 October **2019**.
50. C. Rossano, V. Russo, R. Vitiello, R. Turco, M. Di Serio. Structure/property correlation in the heterogeneously catalyzed esterification of levulinic acid, Merck Young Chemists' Symposium 2019, Rimini (IT), 25-27 November **2019**.
51. F. Taddeo, V. Russo, R. Vitiello, R. Turco, R. Tesser, M. Di Serio. About the Kinetics of Pelargonic acid esterification with 2-Ethylhexanol, Merck Young Chemists' Symposium 2019, Rimini (IT), 25-27 November **2019**.
52. V. Russo, L. Mastroianni, M. Di Serio, T. Salmi, R. Tesser. Intraparticle Modelling of Non-Uniform Active Phase Distribution Catalyst. CHISA 2021 Virtually, 15-18 March **2021**.
53. V. Russo, R. Tesser, C. Rossano, R. Vitiello, R. Turco, T. Salmi, M. Di Serio. Chromatographic reactor application to levulinic acid esterification. CHISA 2021 Virtually, 15-18 March **2021**.
54. T. Salmi, A. Freitas Aguilera, V. Russo, J. Wärnå, P. Tolvanen, K. Eränen, S. Leveneur. Advanced modelling of fatty acid epoxidation process à la Prileschajew. CHISA 2021 Virtually, 15-18 March **2021**.
55. S. Saeid, V. Russo, P. Tolvanen, N. Kumar, K. Eränen, T. Salmi. Development of combined ozonation and catalytic technology for elimination of pharmaceuticals from wastewaters. CHISA 2021 Virtually, 15-18 March **2021**.
56. V. Russo, A. Milicia, M. Di Serio, R. Tesser. Falling film reactors modelling. CAMURE 2021 – 22-24 March **2021** Online Congress.
57. V. Russo, W. Hreczuch, M. Di Serio. Microreactor modelling for ethoxylation reactions. CAMURE 2021 – 22-24 March **2021** Online Congress.
58. E. Santacesaria, R. Turco, V. Russo, R. Tesser, M. Di Serio. Kinetics of soybean oil epoxidation in a semibatch reactor. CAMURE 2021 – 22-24 March **2021** Online Congress.
59. A. Najarneshad mashhadi, C.G. Braz, V. Russo, K. Eränen, H.A. Matos, T. Salmi Advanced modelling of a trickle bed reactor with solid foam packing: Arabinose hydrogenation as a case study. APM Forum 2021-Siemens PSE, 13-15 April **2021**.
60. T. Coglianò, R. Turco, V. Russo, M. Di Serio, R. Tesser. Epoxidation of vegetable oils: insights on kinetic modeling. Consorzio Interuniversitario Reattività Chimica e Catalisi, XVII PhD Chem-Day, 29 April **2021**, virtual conference.
61. F. Taddeo, R. Vitiello, V. Russo, R. Tesser, R. Turco, R. Esposito, F. Ruffo, M. Di Serio. Nonanoic acid esters as solvents for printing inks using zinc acetate as catalyst. XVII PhD Chem-Day, 29 April **2021**, virtual conference.
62. R. Tesser, V. Russo, A. Milicia, M. Di Serio. Modelling of falling film reactors for exothermic reactions. ICheaP 15, Naples (IT), 23-26 May **2021**.
63. M. Di Serio, V. Russo, W. Hreczuch. Modelling of microreactors for ethoxylation reactions using a laminar flow approach. ICheaP 15, Naples (IT), 23-26 May **2021**.
64. T. Salmi, A. Freitas Aguilera, V. Russo, P. Tolvanen, S. Leveneur, P. Lindroos, W. Wikström, K. Eränen. Modelling of a complex multiphase system in semibatch reactor: epoxidation of fatty acids in the presence of solid catalysts. 15th International Conference on Gas-Liquid and Gas-Liquid-Solid Reactor Engineering (GLS-15), 8-11 August **2021**, Ottawa, Canada.

65. M. Hmoudah, V. Russo, M. Di Serio. Adsorption and photocatalytic degradation of congo red dye from aqueous solution using MIL-88 A: Kinetics and modeling. IUPAC-CCCE 2021, Canada, 13-20 August **2021**, virtual conference.
66. M. Di Serio, V. Russo, W. Hreczuch. Microreactor modelling for ethoxylation reactions. XXIV International Conference on Chemical Reactors (ChemReactor-24), 12-17 September **2021**, virtual conference.
67. R. Tesser, V. Russo, R. Vitiello, R. Turco, M. Di Serio, F. Taddeo. Kinetics of pelargonic acid esterification with 2-ethylhexanol in batch and continuous reactors. XXIV International Conference on Chemical Reactors (ChemReactor-24), 12-17 September **2021**, virtual conference.
68. C. Rossano, V. Russo, R. Vitiello, R. Turco, R. Tesser, M. Di Serio. Amberlite IR120 as catalyst for the levulinic acid esterification reaction in batch and continuous operation. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
69. M. Melchiorre, M.E. Cucciolito, V. Russo, M. Di Serio, F. Ruffo, R. Esposito. MOF catalyzed ketalization of glycerol into solketal. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
70. R. Vitiello, P. Perrotta, R. Turco, V. Russo, M. Di Serio, R. Tesser. Optimization of HASE polymers effect in formulation of cement using Design of Experiment. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
71. T. Coglianò, R. Turco, V. Russo, M. Di Serio, R. Tesser. Kinetics of peroxoformic acid decomposition. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
72. M. Hmoudah, V. Russo, M. Di Serio. Assessment of the robustness of iron-based metal organic frameworks (MIL-88A) in aqueous environment. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
73. F. Taddeo, V. Russo, R. Esposito, R. Vitiello, R. Turco, R. Tesser, F. Ruffo, M. Di Serio. Kinetics of solketal synthesis promoted by Iron(III) complex. XVII Congresso Nazionale Società Chimica Italiana SCI 2021, 14-23 September **2021**, virtual conference.
74. M. Hmoudah, N. Gallucci, E. Martinez, M. Di Serio, L. Paduano, G. Vitiello, V. Russo. Sustainable photodegradation of ibuprofen using CeO₂ nanostructured materials. Merk young chemists symposium 2021, Rimini (IT), 22-24 November **2021**.
75. C. Braz, A. Najarneshadimashhadi, V. Russo, K. Eränen, H.A. Matos, T. Salmi. Dynamic modelling of non-isothermal open-cell foam catalyst packings: Sugar hydrogenation as a case study. 32nd European Symposium on Computer Aided Process Engineering (ESCAPE32), 12-15 June **2022**, Toulouse, France.
76. F. Taddeo, C. Rossano, M. Di Serio, V. Russo. Kinetics of Levulinic acid esterification: from batch to continuous operation. XXII Congresso Nazionale della Divisione di Chimica Industriale, Catania (IT), 7-8 November **2022**.
77. R. Turco, F. Taddeo, R. Tesser, M. Di Serio, V. Russo. Heterogeneous catalyzed ketalization of ethyl levulinate with glycerol. XXII Congresso Nazionale della Divisione di Chimica Industriale, Catania (IT), 7-8 November **2022**.
78. M.E. Fortunato, F. Taddeo, M. Di Serio, V. Russo. Synthesis of methyl-levulinate catalyzed by an ion-exchange resin: a kinetic investigation. XXII Congresso Nazionale della Divisione di Chimica Industriale, Catania (IT), 7-8 November **2022**.
79. R. Paparo, M.E. Fortunato, G. Carotenuto, F. Uggeri, M. Trifuoggi, V. Russo, M. Di Serio, L. Nicolais. Adsorption of iopamidol onto activated carbon. XXII Congresso Nazionale della Divisione di Chimica Industriale, Catania (IT), 7-8 November **2022**.
80. L. Mastroianni, D.Yu Murzin, T. Salmi, M. Di Serio, V. Russo. Oxidation of alcohols Promoted by gold in a Microreactor: kinetic and Modeling study. XXII Congresso Nazionale della Divisione di Chimica Industriale, Catania (IT), 7-8 November **2022**.

Editorial activity

- Associate Editorial Board Member of “Frontiers in Chemical Reaction Engineering” since May **2019**.
- Reviewer Board Member of “Materials – MDPI” since October **2019**.
- Editorial Board Member of “Chemengineering” (MDPI) since September **2020**.
- Journal Topics Board Member of “Micro” (MDPI) since November **2020**.
- Journal Topics Board Member of “Catalysts” (MDPI) since June **2021**.
- Editorial Board Member of “Processes” (MDPI) since July **2021**.
- Advisory Board Member of “Chemengineering” (MDPI) since January **2022**.
- Editorial Board Member of “Chemical Engineering Journal” (Elsevier) since 25th May **2022**.
- Reviewer Board Member of “Frontiers in Sustainability research” since 21st October **2022**.

Special Issues

- Chemengineering MDPI: “Catalytic Systems for Biomass Valorization”. Editors: S. Haase, E. Grénman, V. Russo. Period: 2022-2023.
- Processes MDPI: “Process Intensification in Chemical Reaction Engineering (II)”. Editors: V. Russo, S. Haase, P. Tolvanen. Period: 2022-2023.
- Processes MDPI: “Process Intensification in Chemical Reaction Engineering”. Editors: V. Russo, S. Haase, P. Tolvanen. Period: 2020-2021.
- Processes MDPI: “Industrial Chemistry Reactions: Kinetics, Mass Transfer and Industrial Reactor Design (II)”. Editors: E. Santacesaria, R. Tesser, V. Russo. Period: 2022-2023.
- Processes MDPI: “Industrial Chemistry Reactions: Kinetics, Mass Transfer and Industrial Reactor Design”. Editors: E. Santacesaria, R. Tesser, V. Russo. Period: 2020-2021.
- Catalysts MDPI: “Catalytic Epoxidation Reaction”. Editors: S. Leveneur, V. Russo, P. Tolvanen. Period: 2020-2021.
- Frontiers in Chemical Engineering: “Understanding the Behavior of Reactive Solid Materials in Chemical Processes”. Editors: P. Tolvanen, H. Grénman, V. Russo, R. Tesser. Period: 2019-2020.

Reviewer activity

Since 29 June **2015**, acting as reviewer for different international journals. Some examples are given below:

- Nature
- Chemical Engineering Journal
- Bioresource Technology
- Canadian Journal of Chemical Engineering
- Industrial & Engineering Chemistry Research
- AIChE Journal
- Fuels
- Chemical Engineering Research & Design
- Reaction Kinetics, Mechanisms and Catalysis
- Chemical Engineering Communications
- Adsorption
- International Journal of Oil, Gas and Coal Technology
- RSC Advances
- Chemical Engineering Science
- International Journal of Thermal Sciences
- Fuel Processing Technology
- ACS Sustainable Chemistry & Engineering
- International Journal of Chemical Kinetics
- Catalysts
- ChemEngineering
- IEEE Access

- Biotechnology and Applied Biochemistry
- Processes
- Materials

Teaching activity

- Since 2019 he is Assistant Professor at the Chemical Science Department of the Università di Napoli “Federico II”, for CHIM04 sector (Industrial Chemistry), holding the following teachings:
 1. Esercitazioni e Laboratorio di Chimica Industriale I (CHIM/04) – 5 CFU
 2. Sviluppo e Controllo dei Processi Chimici Industriali (CHIM/04) – 6 CFU
 3. Introduzione alla Chimica Industriale (CHIM/04) – 6 CFU
- Since 2014 for the Chemical Science Department of the Università di Napoli “Federico II” (Consiglio del Dipartimento di Scienze Chimiche n. 2 del 20/02/20), for CHIM04 sector (Industrial Chemistry), he is part of the exam commissions for all CHIM/04 teachings.
- In 28/5/2018 – 05/06/2018 he held the CACRE (Computer-Aided Chemical Reaction Engineering) course, held at the Åbo Akademi University, Turku, Finland, for master and PhD students in Industrial Chemistry and Chemical Engineering.
- In 13/6/2019 – 15/06/2019 he held courses at the Summer School “Industrial Chemistry & Reaction Engineering”, held at the Åbo Akademi University, Turku, Finland, for master and PhD students in Industrial Chemistry and Chemical Engineering.
- In 14/06/2021 – 18/06/2021 he held the course “Advanced Reactor Modeling with MATLAB” at the Åbo Akademi University, Turku, Finland, for master and PhD students in Industrial Chemistry and Chemical Engineering.
- In 13/06/2022 – 17/06/2022 he held the course “Advanced Reactor Modeling with MATLAB” at the Åbo Akademi University, Turku, Finland, for master and PhD students in Industrial Chemistry and Chemical Engineering.
- In 04/07/2022 – 08/07/2022 he held the course “Advanced Reactor Modeling with MATLAB” at the TU/Dresden, Dresden, Germany, for master and PhD students in Chemical Engineering.
- Since 2020 he is holding the course “Data Acquisition (DAQ) Systems for Chemical Laboratories” (2 ECTS) at the Department of Chemical Sciences of the Università di Napoli “Federico II” (2 ECTS) for PhD students in Chemical Sciences.
- Since 2021 he is holding the course “Flow Chemistry: towards a modern Chemical Industry” at the Department of Chemical Sciences of the Università di Napoli “Federico II” for PhD students in Chemical Sciences.

Teaching grants

- 13.06.2021 – 21.06.2021 Erasmus+ staff mobility for teaching. **Destination:** Åbo Akademi University. **Topic:** Chemical reactor modeling with MATLAB. **Audience:** PhD Students in Chemical Reaction Engineering.
- 14.11.2021 – 22.11.2021 Erasmus+ staff mobility for teaching. **Destination:** TU Dresden. **Topic:** Chemical reactor modeling with MATLAB. **Audience:** PhD Students in Chemical Reaction Engineering.

Invited lectures

1. Lecture entitled “Reactor simulations” for the course “Principles of Chemical Reaction Engineering”, held for students of the English Master’s program in Chemical Engineering, Åbo Akademi University, Turku, Finland on October 17th, **2016**.
2. Lecture entitled “Reactor simulations” for the course “Kemisk Reaktionsteknik” (“Chemical Reaction Engineering”), held for students of the Master’s program in Chemical Engineering, Åbo Akademi University, Turku, Finland on December 9th, **2016**.
3. Lecture entitled “Reactor models with Matlab” for the course “Chemical Reaction Engineering”, held for students of the English Master’s program in Chemical Engineering, Åbo Akademi University, Turku, Finland on October 12th, **2017**.
4. Lecture entitled “Reactor models with Matlab” for the course “Chemical Reaction Engineering”, held for students of the English Master’s program in Chemical Engineering, Åbo Akademi University, Turku, Finland on October 12th, **2018**.
5. Lecture entitled “Fluid-solid Batch Reactor modelling with Matlab” for the course “Chemical Reaction Engineering”, held for students of the English Master’s program in Chemical Engineering, Åbo Akademi University, Turku, Finland on October 04th, **2018**.
6. Lecture entitled “Reactor Simulations” for the course “Principles of Chemical Reaction Engineering”, held for students of the English Master’s program in Chemical Engineering, Åbo Akademi University, Turku, Finland on September 25th, **2019**.

Advisor/co-advisor activity

PhD thesis

1. T. Cogliano. Vegetable oils epoxidation: from batch to continuous process. Åbo Akademi (FI). A.Y. 2019-2022.
2. M. Hmoudah. Innovative materials for water purification. University of Naples Federico II, PhD School in Chemical Sciences, XXXVI cycle.
3. L. Mastroianni. Transient and stationary studies of avant garde catalysts and reactors. Åbo Akademi (FI). A.Y. 2022-2025.
4. M.E. Fortunato. Bio-lubricants derived from waste vegetable-oils. University of Naples Federico II, PhD School in Chemical Sciences, XXXVII cycle.
5. F. Orabona. Synthesis of non-isocyanate polyurethane foams - Catalysis, formulation and product characterization. Åbo Akademi (FI). A.Y. 2022-2025.
6. A. Stornaiuolo. Hydrogen chemical storage of organic substrates via LOHC promoted by heterogeneous catalysts: catalytic, kinetic, and thermodynamic aspects. University of Naples Federico II, PhD School in Chemical Sciences, XXXVIII cycle.

Master’s degree thesis

1. B. Esposito. HPPO: validazione dei modelli cinetici e ottimizzazione dei parametri operativi. A.Y. 2013-2014.
2. A. Natale. Studio della reazione di sintesi di poliesteri alifatici da acido succinico e un diolo. A.Y. 2013-2014.
3. D. Masiello. Dynamic Model for Adsorption Kinetics in Multi-Scale Systems. A.Y. 2014-2015.
4. R. Morlando. Reattore Cromatografico per l’Esterificazione dell’Acido Levulinico. A.Y. 2016-2017.
5. E. Salucci. Levulinic acid esterification kinetics with ethanol. A.Y. 2017-2018.
6. L. Carnevale. Biomass catalytic hydrogenation to high added – value products. A.Y. 2017-2018.
7. C. Salvi. Studio dell’adsorbimento di fluoruri nelle acque. A.Y. 2017-2018.
8. C. Scialla. Catalytic Hydrogenation of xylose to xylitol, for the application in cure of dental caries. A.Y. 2017-2018.
9. C. Capolongo. Reattore cromatografico per l’idrolisi di esteri. A.Y. 2017-2018.
10. G. Musone. La conversione industriale del glucosio in sorbitolo: l’importanza dei coefficienti di diffusione del sistema glucosio/sorbitolo/acqua nella descrizione del processo. A.Y. 2017-2018.

11. A. Broccoli. Study of photodecomposition reaction of methylene blue. A.Y. 2017-2018.
12. F. Broccoli. Study of heterogeneous photodecomposition reaction of phenol. A.Y. 2017-2018.
13. T. Coglianò. Ethyl levulinate synthesis: from batch to fixed bed reactor scale. A.Y. 2018-2019.
14. A. Barone. Catalizzatori eterogenei per l'idrogenazione di xilosio. UniNa-Åbo Akademi.A.Y. 2018-2019.
15. A. D'Angelo. Adsorbimento di Fluoruro su idrossiapatite: dal batch al continuo. A.Y. 2019-2020.
16. C.L. Pizzo. Levulinic Acid Esterification in Chromatographic Reactor. A.Y. 2020-2021.
17. V. Vermile. Bifunctional mixed oxides Ru-Nb-Si based catalysts for Levulinic Acid Hydrogenation to γ -valerolactone. UniNa-UC Leuven.A.Y. 2020-2021.
18. F. Foro. Studio della cinetica del processo HPPO in sistemi ad alta pressione. A.Y. 2020-2021.
19. M.E. Fortunato. Studi Transienti in Catalisi Eterogenea. UniNa-Åbo Akademi.A.Y. 2020-2021.
20. E. Calì. Sintesi e caratterizzazione di nuove schiume poliuretaniche a basso impatto ambientale. A.Y. 2020-2021.
21. E. Cristina. Studio cinetico della reazione di esterificazione dell'acido pelargonico con 2-etilesanolo promossa da acido tungstico supportato su silice. A.Y. 2020-2021.
22. S. Bellisario. Effetto di anioni e cationi presenti in acqua potabile sull'adsorbimento su idrossiapatite dello ione fluoruro. A.Y. 2020-2021.
23. C. Arcopinto. Depurazione delle acque potabili dai bromuri. A.Y. 2020-2021.
24. S. Vito. Sintesi dell'acido δ -amminolevulinico (DALA). A.Y. 2020-2021.
25. L. Mastroianni. Oxidation of alcohols promoted by gold in a microreactor: kinetic and modeling study. A.Y. 2020-2021.
26. A. Respino. Sintesi di chetali di esteri levulinati. A.Y. 2020-2021.
27. C. Chianese. Cinetica di fotodegradazione dell'ibuprofene promossa da ossidi metallici. A.Y. 2020-2021.
28. B.A. De Liso. Idrogenazione catalitica di xilosio a xilitolo promossa da catalizzatori sol-gel Ru/SiO₂ A.Y. 2020-2021.
29. A. Musco. Cromatografia reattiva applicata alla sintesi del metil levulinato. A.Y. 2020-2021.
30. F. Orabona. Epoxidation of light olefins with hydrogen peroxide over TS-1 in a trickle bed reactor. A.Y. 2020-2021.
31. D. Lentini. Screening of Fe(III) containing Metal-Organic Frameworks (MOFs) as catalysts for glycerol ketalizations. A.Y. 2020-2021.
32. R. Soprano. Sintesi dell'acido δ -amminolevulinico (DALA). A.Y. 2021-2022.
33. S. Silvestro. Esterificazione dell'acido acrilico con polioli promossa da catalizzatori eterogenei acidi di Brønsted. A.Y. 2021-2022.
34. M. Chianese. Cinetica di fotodegradazione di ibuprofene promossa da catalizzatori Fe-CeO₂ attivi con radiazione visibile. A.Y. 2021-2022.
35. A. Alario. Passaggio di scala dal batch al continuo per la sintesi di chetali dell'etil levulinato. A.Y. 2021-2022.
36. G. Rossi. Epoxidation of limonene with hydrogen peroxide over heterogeneous catalysts in a batch reactor. A.Y. 2021-2022.
37. R. Foggia. Uso di microreattore per l'investigazione di fine chemicals in sistemi multifase. A.Y. 2021-2022.
38. C. Cafiero. Esterificazione dell'acido pelargonico con l'alcol 2-etilesanolo: passaggio di scala dal batch al continuo. A.Y. 2021-2022.

Bachelor's degree thesis

1. A. Opera. Studio della decomposizione dell'acqua ossigenata per il processo di formazione degli oli epossidati. A.Y. 2012-2013.
2. R. Morlando. Cinetica del processo HPPO ad alta pressione. A.Y. 2013-2014.
3. C. Salvi. Studio dell'adsorbimento del blu di metilene su silice in condizioni batch. A.Y. 2014-2015.
4. L. Carnevale. Studio cinetico della reazione di decomposizione dell'acido formico in condizioni di utilizzo industriale. A.Y. 2014-2015.
5. A. Oglio. Studio dei catalizzatori eterogenei per la decomposizione dell'acqua ossigenata. A.Y. 2014-2015.
6. D. Zannini. Metodi analitici per la sintesi del polietilensuccinato. A.Y. 2014-2015.
7. G. Coppola. Studio dell'adsorbimento del blu di metilene su silice in continuo. A.Y. 2014-2015.
8. C. Capolongo. Studio cinetico del processo HPPO ad alta pressione. A.Y. 2014-2015.
9. A. Broccoli. Nuovi catalizzatori eterogenei per la sintesi del γ -valerolattone. A.Y. 2014-2015.
10. L. Scotto d'Antuono. Sintesi di poliammidi a partire da derivati dell'acido succinico. A.Y. 2015-2016.
11. G. Di Rienzo. Materiali derivati da biomasse per l'adsorbimento fluido-solido. A.Y. 2015-2016.
12. R. Guidone. Modelli matematici per il processo di sintesi delle cloridrine con acido cloridrico gassoso. A.Y. 2015-2016.

13. G. D'Ancicco. Studio dell'Adsorbimento di ioni Rame e Piombo su Carbone Attivo in Reattore Batch. A.Y. 2016-2017.
14. A. D'Angelo. Determinazione dei Coefficienti di Diffusione della Miscela Ternaria Etanolo, Toluene, n-decano. A.Y. 2016-2017.
15. C. Antonucci. Sintesi di Precursori per Poliuretani a partire da Acido Biosuccinico. A.Y. 2016-2017.
16. A. Celeo. Utilizzo Del Glicerolo Per La Sintesi Di Campioni A Basso Peso Molecolare Di Polibutilensuccinato. A.Y. 2016-2017.
17. G. Vaiano. Sintesi del γ -valerolattone in presenza di Rutenio su Carbone. A.Y. 2016-2017.
18. S. Vito. Esterificazione dell'acido levulinico in presenza di acido solforico. A.Y. 2017-2018.
19. P. Perrotta. Modelli matematici per reazioni di esterificazione in un reattore batch con ricircolo. A. Y. 2017-2018.
20. G. Tafuro. Sintesi di oligomeri dell'acido lattico tramite la formazione e purificazione di lattidi ottenuti mediante tecnologia R.O.P. in reattore batch. A.Y. 2017-2018.
21. M.E. Fortunato. Modelli cinetici per la reazione di transesterificazione degli oli vegetali. A.Y. 2017-2018.
22. A. Agorini. Prepolimeri acido succinico/1,4-butandiolo per la formulazione di schiume poliuretaniche. A.Y. 2017-2018.
23. E. De Gregorio. Studio della cinetica della reazione di sintesi dell'etil levulinato promossa da Amberlite IR-120. A.Y. 2017-2018.
24. A. Dello Stritto. Studio della cinetica della reazione di sintesi Dell'etil levulinato promossa da acido solforico. A.Y. 2018-2019.
25. C. Chianese. Cinetica di adsorbimento di fluoruri in acqua minerale in presenza di Fluor-Andel®. A.Y. 2018-2019.
26. A. Musco. Sintesi dell'etil levulinato in un milli-reattore a letto fisso. A.Y. 2018-2019.
27. F. Orabona. Studio della cinetica dell'esterificazione dell'acido pelargonico con alcool 2-etil-1-esanolo promossa da amberlite IR-120. A.Y. 2018-2019.
28. L. Mastroianni. Sviluppo di modelli intraparticellari per catalizzatori con distribuzione non uniforme di fase attiva. A.Y. 2018-2019.
29. S. Silvestro. Studio cinetico della sintesi del solketal promossa da $\text{FeCl}_3(1\text{-NO}_2)$. A.Y. 2018-2019.
30. M. Morra. Sintesi e caratterizzazione di schiume poliuretaniche a partire da bio-polioli ottenuti da acido succinico e 1,4-butandiolo. A.Y. 2018-2019.
31. S. Gallo. Adsorbimento di ioni fluoruro e rigenerazione del Fluor-andel®. A.Y. 2018-2019.
32. B.A. De Liso. Catalizzatori eterogenei per la sintesi del γ -valerolattone. A.Y. 2018-2019.
33. G. Minervino. Modelli cinetici per la sintesi di biodiesel. A.Y. 2018-2019.
34. N. Cardenio. Caratterizzazione fluidodinamica in un milli-reattore a letto fisso. A.Y. 2018-2019.
35. M. Chianese. Cinetica di fotodegradazione di ibuprofene promossa da CeO_2 e TiO_2 . A.Y. 2018-2019.
36. G. Marotta. Cinetica di etossilazione in microreattori a flusso laminare. A.Y. 2018-2019.
37. R. Foggia. Adsorbimento dell'acido 2,4-diclorofenossiacetico su argille. A.Y. 2018-2019.
38. L. Ebarone. Studio dell'adsorbimento di ibuprofene su carboni attivi. A.Y. 2018-2019.
39. C. Migliaccio. Idrogenazione catalitica degli zuccheri. A.Y. 2019-2020.
40. V. Liguori. Modelli di adsorbimento fluido-solido. A.Y. 2019-2020.
41. C. Savino. Studio dell'adsorbimento di ibuprofene. A.Y. 2020-2021.
42. A. Lucente. Cinetica di fotodegradazione dell'ibuprofene promossa da TiO_2 . A.Y. 2020-2021.
43. L. Riccio. Studio della cinetica dell'esterificazione dell'acido pelargonico con alcool 2-etil-1-esanolo promossa dall'acido tungstico supportato su silice. A.Y. 2020-2021.
44. F. Ciccarelli. Cinetica di fotodegradazione di ibuprofene catalizzata da TiO_2 -acidi umici. A.Y. 2020-2021.
45. C. Cafiero. Cinetica di fotodegradazione di ibuprofene promossa da catalizzatori a base di ZnO . A.Y. 2020-2021.
46. L. Faro. Aspetti diffusivi per l'adsorbimento di ibuprofene su carboni attivi. A.Y. 2020-2021.
47. A.F. De Domenico. Studio della cinetica della reazione di sintesi dell'acido γ -idrossivalerico promossa da Ru/SiO_2 . A.Y. 2020-2021.
48. M. Cavaliere. Sintesi di mil-68(Al) per l'adsorbimento di blu di metilene dalle acque. A.Y. 2020-2021.
49. N. Albrizio. Studio dell'adsorbimento in continuo di ibuprofene su matrici ibride organiche-inorganiche a base di silicati. A.Y. 2020-2021.
50. C. Carandente Coscia. Studio cinetico della reazione di esterificazione dell'acido pelargonico a 2-etilesil pelargonato catalizzata con acido tungstico supportato su silice. A.Y. 2020-2021.
51. F.P. Cavaliero. Metal-Organic Frameworks a base di Fe(III) per la conversione sostenibile di glicerolo in chetali. A.Y. 2020-2021.
52. D. Guarino. Esterificazione dell'acido pelargonico in un reattore a letto fisso. A.Y. 2020-2021.
53. G. Salzano. Cinetica di fotodegradazione di ibuprofene catalizzata da TiO_2 -acidi umici derivante da leonardite. A.Y. 2020-2021.
54. C. Celoro. Nuovi materiali adsorbenti a base di geopolimeri per la rimozione di coloranti cationici. A.Y. 2020-

- 2021.
55. G. Bottiglieri. Idrogenazione dello xilosio tramite catalizzatore Ru/SiO₂ sintetizzato mediante metodologia sol-gel. A.Y. 2020-2021.
 56. E. Renzulli. Screening di catalizzatori eterogenei per la sintesi di chetali dell'etil levulinato. A.Y. 2020/2021.
 57. M. Ciaramella. Cinetica di fotodegradazione dell'ibuprofene promossa da TiO₂-acidi umici. A.Y. 2020-2021.
 58. S. Capasso. Modelling of chemical systems dominated by variable regimes for the ethyl levulinate synthesis. A.Y. 2020-2021.
 59. V. Fulgente. Studio cinetico della sintesi del solketal promossa da Mil88-A. A.Y. 2020-2021.
 60. L. Pes. Cromatografia reattiva per la sintesi del metil levulinato. A.Y. 2020-2021.
 61. A. Ferrara. Adsorbimento di 2,4-D in flusso su argille commerciali. A.Y. 2020-2021.
 62. L. Pescatore. Catalizzatori eterogenei per la sintesi dell'acido difenolico. A.Y. 2020-2021.
 63. M. Spinosa. Metilazione dell'acido levulinico: primo step per la sintesi del DALA. A.Y. 2020-2021.
 64. D. Cerbone. Studio cinetico di adsorbimento in discontinuo del blu di metilene su polimeri inorganici amorfi a base di alluminosilicati. A.Y. 2020-2021.
 65. P. Coppola. Cinetica della reazione di sintesi del 2-etilesilpelargonato promossa da H₂WO₄/SiO₂ ad alta temperatura. A.Y. 2020-2021.
 66. S. Romano. Cinetica di fotodegradazione di ibuprofene promossa da Fe(2.5)CeO₂. A.Y. 2021-2022.
 67. A. Esposito. "Flow Chemistry" applicata alla chetalizzazione di Etil Levulinato con Glicerolo. A.Y. 2021-2022.
 68. F. Levi. Chetalizzazione di Etil Levulinato con Glicerolo promossa da Dowex-50WX8. A.Y. 2021-2022.
 69. G.L. Ciaravola. Cinetica di fotodegradazione di ibuprofene catalizzata da TiO₂-acidi umici. A.Y. 2021-2022.
 70. A. Lanzara. Cinetica della reazione di sintesi del metil levulinato promossa da Dowex 50 W-X8. A.Y. 2021-2022.
 71. E. Sorvillo. Adsorbimento di ibuprofene in flusso su carboni attivi. A.Y. 2021-2022.
 72. S. Napolitano. Sintesi dell'acido difenolico promossa da Amberlyst-15. A.Y. 2021-2022.
 73. V. Calabria. Cromatografia reattiva per la sintesi di Butil Levulinato. A.Y. 2021-2022.
 74. R. Sanseverino. Fotodegradazione di ibuprofene promossa da catalizzatori a base di Fe-CeO₂. A.Y. 2021-2022.
 75. F.C. Lavino. Fotodegradazione dell'ibuprofene nel visibile catalizzata da TiO₂-coloranti piranici. A.Y. 2021-2022.
 76. L. Melito. Screening catalitico per la chetalizzazione dell'etil levulinato con glicerolo. A.Y. 2021-2022.
 77. M. Ferrieri. Metodi transienti per la sintesi dell'etil levulinato. A.Y. 2021-2022.
 78. D. Solimene. Sintesi di biotensioattivi da chetali dell'etil levulinato. A.Y. 2021-2022.

Traineeships with companies

1. A. Pathmanathan. Analisi delle acque. UniNa-Natura Srl. A.Y. 2021-2022.
2. V. Pirozzi. Studio delle tecniche spettrofotometriche. UniNa-Natura Srl. A.Y. 2021-2022.

Opponent activity

Opponent for BSc and MSc thesis in Chemistry/Industrial Chemistry degree courses.

He acted as PhD opponent for the following theses:

1. Yanjun Wang. Production of γ -valerolactone from the hydrogenation of levulinic acid or alkyl levulinates: Calorimetry and Kinetic study. Normandie Université. Tutor: Dr. S. Leveneur. 2020.

Research grants

2021 – 2022	Propene oxide synthesis grant provided by CONSER S.p.A.
01/09/2020 – today	Leader of the Chemical Sciences Department of the University of Naples “Federico II” team for the Erasmus+ Project “STEM-CPD@EUni”. Activity: “Developing a train the trainer activity in European University for high education”.
2022 – 2024	Leader of the Chemical Sciences Department of the University of Naples “Federico II” team for the PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2020 “LEVANTE: LEvulinic acid Valorization through Advanced Novel TEchnologies”. Activity: “Developing technology for levulinic acid valorization”.

Travel grants

2022	Travel grant awarded by MDPI
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Activity in national and EU projects

2019 – today	CARDIGAN PRIN 2019-2021. Activity: “Sintesi di PLLA da acido lattico ottenuto da processi biotecnologici”.
01/01/2016 – 19/07/2016	BIOPOLIS PON 2007-2013. Activity: “Studio della sintesi di poliesteri e poliammidi da acido succinico ottenuto da brodi di fermentazione e scale-up del processo”
01/07/2015 – 30/11/2015	P.O.R. Campania FERS 2007/2013 - Bio Industrial Processes (BIP) - project for a Regional Biotechnologies Network in Campania, CUP B25C13000290007. Activity: “Sviluppo di modelli matematici di simulazione ed ottimizzazione di fermentatori industriali”
12/05/2014 – 15/05/2015	PON04_a2F B&SAVE-AQUASYSTEM-SIGOLD (CUP E61H2000170005), BORS 14 DICEA/2014. Activity: “Modellazione di colonne di adsorbimento fluido-solido”
2007 – 2013	COPIRIDE project (Combining Process Intensification-driven Manufacture of Microstructured Reactors and Process Design regarding to Industrial Dimensions and Environment), directed by prof. V. Hessel (http://www.copiride.eu/). Activity: “Modeling of epoxidation reactors”.

ASN – Abilitazione Scientifica Nazionale (National Academic Qualification as Associate Professor)

03/08/2018 - 03/08/2024	National Academic Qualification as Associate Professor for the Academic Recruitment field “09/D3 - Impianti e Processi Industriali Chimici” (Chemical plants and processes)
01/10/2018 - 01/10/2024	National Academic Qualification as Associate Professor for the Academic Recruitment field “03/C2 - Chimica Industriale” (Industrial Chemistry)

Activity in cooperation with industrial partners

2011 – today	Propene oxide synthesis in cooperation with CONSER S.p.A.
01/02/2018 – today	Cooperation with Cossa Polimeri on the simulation of: (i) permeability experiments; (ii) THF release from polymeric membranes.
01/06/2017 – 31/01/2018	Cooperation with Desmet Ballestra on the development of falling film reactors for sulfonation reactions.
30/06/2015 – 30/06/2016	Cooperation with Eurochem Engineering S.r.l. on the organic peroxide decomposition reactions.
15/09/2011 – 11/07/2012	Cooperation with Akzo Nobel (SE) on the No-VOC Challenge for industrial paints, using zeolites as extenders and sorbents.
15/09/2010 – 01/03/2011	Epoxidized soybean oil production in cooperation with Mythen S.p.A.

Academic positions

26/10/2023	Commission of trust for a research grant entitled “Sintesi e caratterizzazione di poliolefine funzionali” for the project “Materiali Polimerici” at the Department of Chemical Sciences of the University of Naples “Federico II”, 01/11/2021 – 01/11/2022
16/05/2023 – today	Member of the PhD Board of the National PhD School “CATALISI” (cycle XXXIX), of the University of Perugia.
17/11/2022 – today	President of the Erasmus committee for the Chemical Sciences Department of University of Naples “Federico II”.
12/05/2021 – today	Member of the Third Mission Commission of the Department of Chemical Sciences, UNINA.
15/09/2017 – today	Member of the Teaching Commission of the Industrial Chemistry BSc and MSc degree courses at the Department of Chemical Sciences, UNINA.
15/09/2017 – today	Responsible of Erasmus+ agreements with INSA Rouen (FR) and TU/Dresden (D).
01/01/2018 – today	Tutor for the Chemical Sciences Department of University of Naples “Federico II” for the project P.O.R. CAMPANIA FSE 2014/2020 ASSE III – OBIETTIVO SPECIFICO 14, about the direction of internships intra and extra curricula financed by Regione Campania.
08/05/2019 – 18/07/2022	Elected member of the Peer Commission for the Chemical Sciences Department of University of Naples “Federico II”.
15/12/2020 – 17/11/2022	Member of the Erasmus committee for the Chemical Sciences Department of University of Naples “Federico II”.
26/01/2022	Commission of trust for a scholarship entitled “Valorizzazione di oli esausti e oli vegetali” at the Consorzio Interuniversitario Reattività Chimica e Catalisi – CIRCC – Sede di Napoli, decr. N. 15, Bando n. 9 del 26 gennaio 2022.
22/01/2021	Commission of trust for a scholarship entitled “Progettazione e sperimentazione di attività didattiche di chimica di base per gli studenti degli ultimi anni della scuola secondaria superiore di secondo grado e per la formazione degli insegnanti” for the project “Piano Lauree Scientifiche – PLS” at the Department of Chemical Sciences of the University of Naples “Federico II”, 01/02/2021 – 30/04/2021

26/10/2021	Commission of trust for a research grant entitled “Sviluppo di bioprocessi microbici ed enzimatici per la conversione delle radici di cardo in biopolimeri microbici” for the project “CARDoon valorisation by InteGrAted biorefiNery (CARDIGAN) COD. 2017KBTk93” CUP E68D19000700001” at the Department of Chemical Sciences of the University of Naples “Federico II”, 01/11/2021 – 01/11/2022
13/01/2022	Commission of trust for a scientific advice ““Studio di processi estrattivi da applicare su macroscale industriale e supporto al coordinamento tecnico e trasferimento tecnologico verso i partner di progetto della tecnologia di estrazione innovativa rapida solido-liquido dinamica (RSLDE) altrimenti denominata “ESTRAZIONE NAVIGLIO”” at the Department of Chemical Sciences of the University of Naples “Federico II”
08/09/2021	Member of the election committee for the election of the Director of the Department of Chemical Sciences for the period 2022-2024 (“Decreto di indizione pubbl. 22/07/2021”)
07/03/2022	President of the election committee for the election of n. 1 Representative of the PhD Students for the Department of Chemical Sciences for the period 2021/2023 (D.D. n.44 of 24/2/2022)
07/03/2022	President of the election committee for the election of the Representative of the Students for the Department of Chemical Sciences for the period 2021/2023 (D.D. n.43 of 24/2/2022)

Students orientation activities

17/11/2022 – today	Elected member of the Student Orientation Commission for the Chemical Sciences Department of University of Naples "Federico II".
08/06/2022	Interview for F2RadioLab, podcast “Cosa farò da grande”.
15/09/2017 – 17/11/2022	Elected member of the Student Orientation Commission for the Chemical Sciences Department of University of Naples "Federico II".
01/01/2019 – today	Tutor for the Chemical Sciences Department of University of Naples "Federico II" for favoring the contact between students and private companies.

Activities for PLS (Progetto Lauree Scientifiche) at the Department of Chemical Sciences of the University of Naples “Federico II”:

- PLS 2020 @HOME
 - Seminar entitled “PROCESSI E PLASTICHE ECOSOSTENIBILI: IL FUTURO TRA TECNOLOGIA E TUTELA AMBIENTALE” for students
- PLS 2021
 - Seminar entitled “DESIGN, PRODUZIONE INDUSTRIALE E MICROSCOPIA DI NANOMATERIALI” for students
 - Seminar entitled “PROCESSI CHIMICI INDUSTRIALI” for students
- PLS 2022
 - Seminar entitled “Didactic Laboratory: a guided approach” for teachers
 - Seminar entitled “DESIGN, PRODUZIONE INDUSTRIALE E MICROSCOPIA DI NANOMATERIALI” for students
 - Seminar entitled “LE BIORAFFINERIE” for students

Third mission activities

- 20,27/05/2022 Member of the scientific and organizing committee of the third mission event “Dentro una goccia d’acqua” hosted at the Department of Chemical Sciences of UNINA.
- 20/05/2021 Practical/theoretical lecture on “Industrial Chemistry” at the “Liceo Scientifico Statale di Arzano” on the invitation of Prof. Ciro Marino.

Associations

- 2010 – Today Member of the Italian Chemistry Society (SCI), of the Industrial Chemistry Division and the Interdivisional Group of Catalysis
- 2019 – Today Member of the national association of Chemical Engineers (AIDIC)
- 2020 – Today Elected member of the Campania Region section of the Italian Chemistry Society (SCI)
- 2021 – Today Member of the board of the Italian Chemistry Society (SCI), section Campania
- 28/03/2022 – Today Member of the Order of Physics and Chemists, n. 2112
- 2022 – Today Representative of the University of Naples “Federico II” of the ECTN.

Attended schools

1. “LabVIEW Core 1 and Core 2” – Università di Napoli “Federico II” 1-5 July 2013.
2. “Scuola di Calcolo Scientifico con MATLAB” – Palermo 29th August 2011 – 2nd September 2011.
3. “Deposition of catalyst into microchannels” 10th-12th February 2010.
4. Tenth Post-Graduate Summer School on Green Chemistry – Interuniversity Consortium “Chemistry For The Environment” 12th-18th October 2008.
5. Certified English course: Entry Level Certificate in English (ESOL) – Entry 3 – Preliminary English Test (PET) – Level B1 November 2002.

Si dichiara ai sensi dell’Art. 47 del d.P.R. 445/2000 la veridicità delle informazioni ivi dichiarate. Si autorizza il trattamento dei dati personali, compresi i dati sensibili, a cura del personale assegnato all’ufficio preposto alla conservazione delle domande e all’utilizzo delle stesse per lo svolgimento delle procedure amministrative.