

TO MAGNIFICO RETTORE OF UNIVERSITÀ DEGLI STUDI DI MILANO

I, the undersigned, request to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at <u>Dipartimento di Scienze per gli Alimenti la Nutrizione e l'Ambiente</u>.

Scientist-in-charge Prof. Sara Limbo and Prof. Manuela Rollini.

Daniele Maria Martins

CURRICULUM VITAE

PERSONAL INFORMATION

| Surname | Maria Martins |
|------------|---------------|
| Name | Daniele |
| Birth date | 29/05/1992 |

PRESENT OCCUPATION

| Appointment | Structure |
|-------------|---------------------------------------------------------------------------------|
| Post-doc | Department of Food, Environmental and Nutritional Sciences, University of Milan |

EDUCATION AND TRAINING

| Degree | Course of studies | University | year of achievement of the degree | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------|--|
| Bachelor in Chemistry | Chemistry | State University of São Paulo | 2016 | |
| PhD | Science Area: Analytical and Inorganic Chemistry | University of São Paulo | 2022 | |
| | Thesis: Amine Ru-dmso complex as pre-catalyst for polymerization reaction: kinetic and mechanistic studies. | | | |
| Master | Science University of São Paulo 2018 Dissertation: Development of Ru(II) sulfoxide complexes for application in ring- opening metathesis polymerization of cyclic olefins. | | | |
| Post-doc | Chemistry | Federal University of São Carlos | 2023 | |
| Post-doc | Chemistry | University of Milan | 2023 - currently | |

ID CODE: <u>5809</u>



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FOREIGN LANGUAGES

| Languages | level of knowledge | |
|------------|--------------------|--|
| English | B2 | |
| Portuguese | Native | |

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

| Year | Description of award | |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------|--|
| 2023-currently | Postdoctoral funding by Nacional Council for Scientific and Technological Development (CNPq) at the University of Milan. | |
| 2022-2023 | Postdoctoral funding by National Institute of Science and Technology (INCT) at the Federal University of São Carlos. | |
| 2018-2022 | PhD student: Scholarship by Nacional Council for Scientific and Technological Development (CNPq) at the University of São Paulo. | |
| 2016-2018 | Master Student: Scholarship by Nacional Council for Scientific and Technological Development (CNPq) at the University of São Paulo. | |
| | Honorable Montion at the Oth Congress of undergraduate research of the Eaculdades | |
| 2015 | Honorable Mention at the 9 th Congress of undergraduate research of the Faculdades Adamantinenses Integradas. | |

TRAINING OR RESEARCH ACTIVITY

| I KAINING OF | RESEARCH ACTIVITY |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | of activity |
| 02/2023- currently | Postdoctoral Fellow - Department of Food, Environmental and Nutritional Sciences, University of Milan, Milan, Italy. Project: Antioxidant Mg(II)-polyphenol compounds in bioactive films and coatings for food packaging. • Development of methodology to assess the inorganic componds effectiveness. • Incorporation of active molecules into biopolymer matrices. • Evaluation of films for food packaging and shelf life extension. • Set-up of <i>in situ</i> antimicrobial activity tests. |
| | • Set-up of III situ antimicropiat activity tests. |
| 07/2022 - 01/2023 | Postdoctoral Fellow - Department of Chemistry, Federal University of São Carlos, São Carlos, Brazil. Project: Development of biopolymers matrices with insecticidal agents and nutrients for sustainable protection of agricultural and horticultural regions. • Synthesis of new complexes with flavonoids obtained from food industry residue. • Physical and chemical characterization of active molecules. • Assessment of nutrient and target active molecules efficacy in agriculture. |

PROJECT ACTIVITY

| Year | Project |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2023 | "Antioxidant Mg(II)-polyphenol compounds in bioactive films and coatings for food packaging". The current project aims to evaluate the effectiveness of new active molecules incorporated into biopolymer matrices. It involves establishing <i>in situ</i> tests to assess antimicrobial activity and evaluating food packaging films to prolong shelf life. |



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CONGRESSES AND SEMINARS

| Date | Title | Place |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| May 27, 2019 | DMSO-based ruthenium complexes with anilin as further ancillary ligand: Synthesis, characterization and catalytic activity for olefin metathesis. | _ |
| September 22, 2017 | Ring-Opening Metathesis Polymerization of nornbornene using new ruthenium-aniline complexes. | 14 th Brazilian Congress of Polymers, Águas de Lindóia, Brazil. |
| 2015 | Synthesis, structural characterization, and analysis of the catalytic potential of the double perovskite Ca _{0,5} K _{0,5} TiCu _{0,25} O ₃ in the synthesis of biodiesel via ethyl route. | 9 th Congress of undergraduate research students of the Faculdades Adamantinenses Integradas, Adamantina, Brazil. |

PUBLICATIONS

Articles in peer review journals

Alves, E.A.; Tomazett, V.K.; Martins, D.M.; Lima-Neto, B.S.

Development of ruthenium polypyridine metallo-monomers and characterization of their metallopolymers obtained by ROMP.

New Journal of Chemistry, v. 46, p. 5799-5805, 2022. doi: 10.1039/D1NJ06085F

Gois, P.D.S.; Maia, J.I.P.; Masson, G.H.C.; Martins, D.M.; Machado, A.E.H.; Goi, B.E.; Maia, P.I.S.; Carvalho-Jr, V.P. Monometallic and heterobimetallic ruthenium (II) and palladium (II) complexes based on a pyridine-hydrazone ligand as bifunctional catalysts for ROMP of norbornene and ethylene polymerization.

Applied Organometallic Chemistry, v. 36, p. 1-14, 2022. doi: 10.1002/aoc.6491

Masson, G.H.C.; Cruz, T.R.; Gois, P.D.S.; Martins, D.M.; Lima-Neto, B.S.; Oliveira, G.S.; Machado, A.E.H.; Bernardo-Gusmão, K.; Goi, B.E.; Carvalho-Jr, V.P.

Ruthenium-nickel heterobimetallic complex as a bifunctional catalyst for ROMP of norbornene and ethylene polymerization.

New Journal of Chemistry, v. 45, p. 11466-11473, 2021. doi: 10.1039/D1NJ01498F

Oliveira, D.P.; Cruz, T.R.; Martins, D.M.; Maia, P.I.S.; Machado, A.E.H.; Bogado, A.L.; Goi, B.E.; Lima-Neto, B.S.; Carvalho-Jr, V.P.

In situ-generated arene-ruthenium catalysts bearing cycloalkylamines for the ring-opening metathesis polymerization of norbornene.

Catalysis Today, v. 381, p. 34-41, 2021. doi: 10.1016/j.cattod.2020.10.018

Silva, T.B.; Martins, D.M.; Gois, P.D.S.; Borim, P.; Maia, P.I.S.; Carvalho-Jr, V.P.; Lima-Neto, B.S.

fac-[RuCl₂(DMSO-S)₃(n-butylamine)]: Synthesis, structural characterization and dual catalytic performance.

Inorganic Chemistry Communications, v. 112, p. 107749, 2020. doi: 10.1016/j.inoche.2019.107749

Cruz, T.R.; Silva, E.A.; Oliveira, D.P.; Martins, D.M.; Gois, P.D.S.; Machado, A.E.H.; Maia, P.I.S.; Goi, B.E.; Lima-neto, B.S.; Carvalho-Jr, V.P.

Dual catalytic performance of arene-ruthenium amine complexes for norbornene ring-opening metathesis and methyl methacrylate atom-transfer radical polymerizations.

Applied Organometallic Chemistry, v. 34, p. 5602, 2020. doi: 10.1002/aoc.5602



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Gois, P.D.S.; Cruz, T.R.; Martins, D.M.; Machado, A.E.H.; Bogado, A.L.; Lima-Neto, B.S.; Goi, B.E.; Carvalho-Jr, V.P.

Cyclic amines homobimetallic ruthenium pre-catalysts bearing bidentate phosphine and their dual catalytic activity for the ring-opening metathesis and atom-radical polymerizations.

Journal of Molecular Structure, v. 1198, p. 126874, 2019. doi: 10.1016/j.molstruc.2019.126874

Martins, D.M.; Maia, P.I.S.; Carvalho-Jr, V.P.; Lima-Neto, B.S.

Cooperative effects of aniline with DMSO in new Ru^{II} complexes tuning the reactivity for ring-opening metathesis polymerization.

European Journal of Inorganic Chemistry, v. 2019, p. 4421-4426, 2019. doi: 10.1002/ejic.201900887

Congress Proceedings

Martins, D.M.; Lima-Neto, B.S. DMSO-based ruthenium complexes with anilin as further ancillary ligand: Synthesis, characterization and catalytic activity for olefin metathesis. In: 42nd Meeting of the Brazilian Chemical Society, Joinville, 2019.

Martins, D.M.; Lima-Neto, B.S. Ring-Opening Metathesis Polymerization of norbornene using new ruthenium-aniline complexes. In: 14th Brazilian Congress of Polymers, Águas de Lindóia, 2017.

Martins, D.M.; Lanfredi, S.; Nobre, M.A.L. Synthesis, structural characterization, and analysis of the catalytic potential of the double perovskite $Ca_{0,5}K_{0,5}TiCu_{0,25}O_3$ in the synthesis of biodiesel via ethyl route. In: 9^{th} Congress of undergraduate research of the Faculdades Adamantinenses Integradas, Adamantina, 2015.

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Milan, 26/06/2023