

**IDENTIFYING INFORMATION:**

NAME: Rodrigues, Debora

ORCID iD: <https://orcid.org/0000-0002-3124-1443>

POSITION TITLE: Chair and Dean's Professor

**PRIMARY ORGANIZATION AND LOCATION:** Clemson University, Department of Environmental Engineering and Earth Sciences, CLEMSON, South Carolina, United States**Professional Preparation:**

| ORGANIZATION AND LOCATION                                      | DEGREE<br>(if applicable) | RECEIPT DATE | FIELD OF STUDY                      |
|--|---------------------------|--------------|-------------------------------------|
| Yale University, New Haven, CT, US                             | Postdoctoral researchers  | 06/2010      | Chemical Engineering                |
| Michigan State University, East Lansing, MI, US                | Ph.D.                     | 05/2007      | Microbiology and Molecular Genetics |
| Universidade de Sao Paulo Campus da Capital, Sao Paulo, SP, BR | Masters of Science        | 08/2002      | Microbiology                        |
| Universidade de Sao Paulo Campus da Capital, Sao Paulo, SP, BR | Bachelor                  | 12/1999      | Biology                             |

**Appointments and Positions**

|                |  |
|----------------|--|
| 2024 - present | Chair and Dean's Professor, Clemson University, Department of Environmental Engineering and Earth Sciences, CLEMSON, South Carolina, United States |
| 2023 - 2024    | Director of the Environmental Engineering Graduate Program, University of Houston, Houston, Texas, United States                                   |
| 2022 - 2023    | Partnership for Innovation Program Officer, National Science Foundation, Alexandria, Virginia, United States                                       |
| 2020 - 2024    | Ezekiel Cullen Professor, University of Houston, Civil and Environmental Engineering, Houston, Texas, United States                                |
| 2016 - 2020    | Associate Professor, University of Houston, Civil and Environmental Engineering, Houston, TX, US   |
| 2010 - 2016    | Assistant Professor, University of Houston, Civil and Environmental Engineering, Houston, TX, US   |
| 2000 - 2000    | Environmental Consultant, Ambitererra Ltda., Sao Paulo, Sao Paulo, BR  |

**Products****Products Most Closely Related to the Proposed Project**

1. Lapeñas L, Peña-Bahamonde J, Nguyen H, de Luna M, Rodrigues D. Manganese ferrite nanoparticle-algal cell interaction mechanisms for potential application in microalgae harvesting. *Cleaner Chemical Engineering*. 2022 December; 4:100061-. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S2772782322000596> DOI: 10.1016/j.clce.2022.100061
2. Herrera G, Paudel S, Lupini S, Astete C, Sabliov C, Rodrigues D. Biodegradable nanoparticles aid the gut microbial community in delaying antibiotic resistance emergence. *Environmental*

Science: Nano. 2024; :- Available from: <https://xlink.rsc.org/?DOI=D4EN00382A> DOI: 10.1039/D4EN00382A

3. Peña-Bahamonde J, Herrera G, Lupini S, Arabaghian H, Rodrigues D. Zein Nanoparticles for Controlled Intestinal Drug Release for the Treatment of Gastrointestinal Infections. ACS Applied Nano Materials. 2023 November 15; 6(23):21707-21720. Available from: <https://pubs.acs.org/doi/10.1021/acsanm.3c03923> DOI: 10.1021/acsanm.3c03923
4. Fanourakis S, Barroga S, Mathew R, Peña-Bahamonde J, Louie S, Perez J, Rodrigues D. Use of polyaniline coating on magnetic MoO<sub>3</sub> and its effects on material stability and visible-light photocatalysis of tetracycline. Journal of Environmental Chemical Engineering. 2022 June; 10(3):107635-. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S2213343722005085> DOI: 10.1016/j.jece.2022.107635
5. Barroga S, Perez J, Rodrigues D. Visible Light Photocatalytic Degradation of Methylene Blue Using Polypyrrole-Coated Molybdenum-Based Magnetic Photocatalyst. Materials Science Forum. 2022 February 17; 1053:397-404. Available from: <https://www.scientific.net/MSF.1053.397> DOI: 10.4028/p-f8llu7

*Other Significant Products, Whether or Not Related to the Proposed Project*

1. Chaves-Lopez C, Nguyen HN, Oliveira RC, Nadres ET, Paparella A, Rodrigues DF. A morphological, enzymatic and metabolic approach to elucidate apoptotic-like cell death in fungi exposed to h- and  $\alpha$ -molybdenum trioxide nanoparticles. Nanoscale. 2018 Nov 15;10(44):20702-20716. PubMed PMID: [30398279](#).
2. Neelgund GM, Aguilar SF, Kurkuri MD, Rodrigues DF, Ray RL. Elevated Adsorption of Lead and Arsenic over Silver Nanoparticles Deposited on Poly(amidoamine) Grafted Carbon Nanotubes. Nanomaterials (Basel). 2022 Nov 1;12(21) PubMed Central PMCID: [PMC9654323](#).
3. Bandara PC, Peña-Bahamonde J, Rodrigues DF. Redox mechanisms of conversion of Cr(VI) to Cr(III) by graphene oxide-polymer composite. Sci Rep. 2020 Jun 8;10(1):9237. PubMed Central PMCID: [PMC7280210](#).
4. Wang M, Zuo X, Jacovone RMS, O'Hara R, Mondal AN, Asatekin A, Rodrigues DF. Influence of zwitterionic amphiphilic copolymers on heterogeneous gypsum formation: A promising approach for scaling resistance. Water Res. 2024 Sep 12;266:122439. PubMed PMID: [39307081](#).
5. Bandara PC, Ibañez de Santi Ferrara F, Nguyen H, Santos G, Shih WC, Rodrigues DF. Investigation of Thermal Properties of Graphene-Coated Membranes by Laser Irradiation to Remove Biofoulants. Environ Sci Technol. 2019 Jan 15;53(2):903-911. PubMed PMID: [30562456](#).

**Certification:**

I certify that the information provided is current, accurate, and complete. This includes but is not limited to current, pending, and other support (both foreign and domestic) as defined in 42 U.S.C. § 6605.

I also certify that, at the time of submission, I am not a party to a malign foreign talent recruitment

program.

Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Rodrigues, Debora in SciENcv on 2024-10-07 12:34:29