



## PERSONAL INFORMATION

Name **DOTT. ING. ANGELA MARCHETTI**

## POSITION

11/2018-today **PHD STUDENT AT SAPIENZA UNIVERSITY OF ROME, DEPARTMENT OF CHEMISTRY**

## EDUCATION AND TRAINING

03/2021-10/2021  
09/2018 **VISITING PHD STUDENT** AT THE DEPARTMENT OF CHEMISTRY, NOVA SCHOOL OF SCIENCE AND TECHNOLOGY (FCT NOVA), PORTUGAL, IN BIOENG LABORATORIES OF PROF. MARIA A. REIS.  
THE RESEARCH DURING THE VISIT FOCUSED ON THE STUDY OF FOOD BY-PRODUCTS FERMENTATION AND ON THE STUDY OF PHA PRODUCTION USING THE PHOTOSYNTHETIC BACTERIA, USING FOR BOTH CASES A CONTINUOUS REACTOR AT LABORATORY SCALE. THE GOAL OF THE FIRST PROCESS WAS TO OBTAIN VOLATILE FATTY ACIDS (VFAs) TO BE FED TO PHA-PRODUCING BACTERIA. IN PARTICULAR, THE PHOTOSYNTHETIC SBR WAS USED TO SELECT PURPLE BACTERIA, CAPABLE TO STORE THE PHA INTRACELLULARLY, THROUGH THE REAL FOOD COLLECTED IN THE FIRST PART OF THE STUDY.

01/2018 **PROFESSIONAL REGISTRATION** IN ROME, ITALY AS ENGINEER, SECTION A / SENIOR

12/2014 **MASTER'S DEGREE** IN ENVIRONMENTAL ENGINEERING AT SAPIENZA UNIVERSITY OF ROME, ROME, ITALY, WITH THESIS WORK ON "SYNTHESIS OF MAGNETIC NANOPARTICLES FOR THE TREATMENT OF WATER IN EMERGENCY SCENARIO BY ADSORPTION" WITH FINAL MARK EQUAL TO 110/110 CUM LAUDE;

07/2010 **BACHELOR'S DEGREE IN ENVIRONMENTAL ENGINEERING** AT SAPIENZA UNIVERSITY OF ROME, ROME, ITALY, WITH FINAL MARK EQUAL TO 97/110;

**HIGH SCHOOL DEGREE** AT LICEO CLASSICO "SILVIO LO PIANO", CETRARO, ITALY, WITH FINAL MARK EQUAL TO 84/100.

## LANGUAGES

Mother tongue **ITALIAN**

Other languages **ENGLISH**

- Understanding B2
- Speaking B2
- Writing B2

## PERSONAL SKILLS

SOFT SKILLS  
SPECIFIC KNOWLEDGE

GOOD COMMUNICATION SKILLS AND TEAMWORK CAPABILITIES

POLYHYDROXYALKANOATES PRODUCTION FROM MIXED MICROBIAL CULTURES (LEARNING)  
PRODUCTION OF BIO VOLATILE FATTY ACIDS BY FERMENTATION AND ELECTRO FERMENTATION PROCESSES (LEARNING)  
SIZING OF WASTEWATER TREATMENT PLANT UNITS (LEARNING)  
NANOTECHNOLOGIES: PRODUCTION OF NANOMATERIALS BY PROCESS INTENSIFIED EQUIPMENT (BASIC KNOWLEDGE)  
MEMBRANE TECHNOLOGIES: INHIBITION OF MEMBRANE FOULING (BASIC KNOWLEDGE)  
CHEMICAL PROCESS CONTROL (BASIC KNOWLEDGE)

## JOB RELATED SKILLS

COMPUTER SKILLS  
LAB WORK

WINDOWS, MS OFFICE, MS VISIO, C++, ASPEN HYSYS, COMSOL MULTIPHYSICS, SOLID EDGE, QGIS, RISK-NET  
EXPERIENCED CHEMICAL LABORATORY WORKER

## PROJECTS AND ACHIEVEMENTS

10/2019-2022  
06/2017-12/2017  
05/2019

PARTICIPATION AT THE RESEARCH ACTIVITY OF USABLE PROJECT (UNLOCKING THE POTENTIAL SUSTAINABLE BIODEGRADABLE PACKAGING, G.A. N°836884), BIO-BASED INDUSTRIES JOINT UNDERTAKING HORIZON 2020  
PARTECIPATION AT THE GALILEO PROJECT, YEAR 2016, ID G47-16.  
WINNER OF THE FIRST PRIZE OF EXCELLENT MASTER'S DEGREE 2018 ENDORSED BY AIDIC, ITALIAN ASSOCIATION OF CHEMICAL ENGINEERING, MILAN, ITALY

## MEMBERSHIP

MEMBER OF AIDIC, ITALIAN ASSOCIATION OF CHEMICAL ENGINEERING, FROM 2019 TO 2020

## PUBLICATIONS

Published papers 4  
Papers in press 0  
Citations 6  
• H-index 1

## LIST OF PAPERS

MARCHETTI, A., STOLLER, M., 2019, "ON THE MICROMIXING BEHAVIOR OF A SPINNING DISK REACTOR FOR METALLIC CU NANOPARTICLES PRODUCTION", APPLIED SCIENCES, 9(16), 3311.

VUPPALA, S., MARCHETTI, A., CIANFRINI, C., STOLLER, M., 2019, "CONTINUOUS REMOVAL OF CR (VI) BY LAB-SCALE FIXED-BED COLUMN PACKED WITH CHITOSAN-NANOMAGNETITE PARTICLES", CHEMICAL ENGINEERING TRANSACTIONS, 73, PP. 193-198.

STOLLER, M., CHENG, K., TRAORE, M., MARCHETTI, A., KANAIEV, A., CHIAVOLA, A., 2019, "DESIGN OF NOVEL EQUIPMENT CAPABLE TO QUICKLY PRODUCE EFFICIENT NANOMATERIALS FOR USE IN ENVIRONMENTAL AND SANITARY EMERGENCIES", CHEMICAL ENGINEERING TRANSACTIONS.

STOLLER, M., MARCHETTI, A., PULIDO, J. M. O., 2019, "ON THE EFFECT OF SPECIFIC BOUNDARY FLUX PARAMETERS ON MEMBRANE PROCESS DESIGN", CHEMICAL ENGINEERING TRANSACTIONS, 74, PP. 685-690.

## CONGRESS PARTICIPATION

01/2019

**AIDIC**, ROME, ITALY

04/2019

**\*NINE**, NAPLES, ITALY

ORAL PRESENTATION: Design of novel equipment capable to quickly produce efficient nanomaterials for use in environmental and sanitary emergencies.

05/2019

**\*ICHEAP**, BOLOGNA, ITALY

ORAL PRESENTATION: Continuous removal of Cr(VI) by lab-scale fixed-bed column packed with chitosan-nanomagnetite particles.

06/2019

**GRICU**, PALERMO, ITALY

09/2019

**\*CEST**, RHODES, GREECE

ORAL PRESENTATION: On the effect of specific boundary flux parameters on membrane process design.

10/2020

**ICCE**, ROME, ITALY

POSTER PRESENTATION: Valorization of food industry byproducts towards polyhydroxyalkanoates production by mixed microbial cultures

05/2021

**EFB**, ROME, ITALY

POSTER PRESENTATION: Controlling the composition of polyhydroxyalkanoates produced with mixed microbial cultures from waste feedstocks by fine-tuning the organic load rate.

\*THE PARTICIPATION IN THESE CONGRESSES IS ALSO CERTIFIED BY THE PUBLICATION IN CET OF THE ABOVE ARTICLES