

**MANCINI FEDERICA**

Date of birth: 13/02/1995

Nationality: Italian

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About me	I am an Industrial Chemist with experience in the field of Organometallic Chemistry and Nanoscience. My interests include industrial chemical processes as well as nano-systems for biomedical applications.
Work experience	November 2021 - Present CNR-ISTEC, Faenza PhD student in nanomedicine, with a particular focus on calcium phosphate nanoparticles for non-viral gene delivery. October 2020 - October 2021 Topas Therapeutics GmbH, Hamburg Assistant researcher in nano-chemistry laboratory. My role deals with the functionalization of SPIONs with different peptides as well as their analysis and application in the field of autoimmune diseases. Familiarity with analysis techniques such as BCA, DLS and zeta potential. October 2019 - October 2020 University of Hamburg, Hamburg Visiting researcher at <i>Center for Hybrid Nanostructures (CHyN, DESY Campus)</i> . My project involves the synthesis of novel nanoalloys and their characterization at synchrotron facilities. Major practical skills achieved: nanoparticles synthesis, electron microscopy characterization (SEM and TEM), EDX and XRD. November 2018 - March 2019 University of Bologna, Bologna Post-grad internship concerning synthesis, characterization and reactivity of Ni and Ni-P carbonyl clusters. Major practical skills achieved: synthesis and characterization of metallic clusters including operation under nitrogen using Schlenk techniques, experience with instrumental techniques such as NMR and FTIR.
Education	June 2019 A-chemist national licence October 2018 Graduation – M.Sc. degree in Industrial Chemistry (108/110) University of Bologna, Bologna Thesis title: “ <i>Synthesis and Characterization of new Al and Zn Complexes for the Ring-Opening Polymerization of Lactide</i> ”. October 2016 Graduation – B.Sc. degree in Industrial Chemistry University of Bologna, Bologna Thesis title: “ <i>Synthesis, characterization and reactivity of Pt carbonyl clusters containing phosphine ligands</i> ”. July 2013 Classical studies High School Liceo Classico “Dante Alighieri”, Rimini
Main courses	Polymer Technology, Industrial Chemical Processes, Industrial Analytical Chemistry, Inorganic Chemistry, Bioinorganic Chemistry.
Curricular internships	February 2018 - July 2018 Chimie Paris Tech, Paris (Erasmus +) Organometallic chemistry and polymer synthesis, with an emphasis on catalytic transformations and the control of stereochemistry. Major practical skills achieved: synthesis and characterization of organometallic compounds including operation under Ar using Schlenk techniques, use of glovebox, preparation and characterization of polyesters, instrumental techniques such as NMR (even heteronuclear) and GPC. February 2016 - May 2016 University of Bologna, Bologna Inorganic and coordination chemistry. Organo-Pt complexes synthesis and characterization.
Publications	DOI: 10.1021/acs.inorgchem.6b02750 DOI: 10.1021/acs.inorgchem.0c02572
Languages	Italian: mother tongue; English: C1; Spanish, German: B1.
Digital competences	Experienced user of Microsoft Office and all main digital tools. User of ChemDraw molecules editor. Good user of MestReNova and TopSpin chemistry software.
Soft skills	Relationship building skills and teamwork ability have been matured during my international experiences. Moreover, organizational skills, accuracy, responsibility and a high commitment level have been developed through demanding high-level research activities.