Curriculum Vitae

Personal Data

Name	Valeria Chesnyak

Academic

11.2020 - 10.2023	Ph.D. Candidate in Nanotechnology, Institute of Materials of the Italian National Research Council (CNR-IOM) and University of Trieste, Dr. Africh
04.2017 - 03.2020	Master Student of Chemistry, Technical University Munich, Main Subject: Physical Chemistry, Minor: Catalysis, Graduation: Master of Science (GPA: 1.4), Master's Thesis: *Hexagonal Boron Nitride on Ir(100) - Towards Templates for One-Dimensional Nanostructures*, Physics E20, Prof. Auwärter
2013 - 2017	Bachelor Student of Chemistry and Economics, University of Ulm graduation: Bachelor of Science (GPA: 2.6) Bachelor's Thesis: *Preparation and structural characterization of gold-modified Pt(111) surface with STM*, IOK, Prof. Behm,
2012 - 2013	Bachelor Student of Physics and Economics, University of Ulm

Qualification

2008 - 2012	Wilhelmsgymnasium Stuttgart, Graduation: University Entrance Diploma (Grammar School)
2006 - 2008	Ernst-Mach-Gymnasium, Haar (Grammar School)
09.2006 - 12.2006	Rheingau-Gymnasium, Berlin (Grammar School)
2002 - 2006	Fläming-Grundschule, Berlin (Primary School)
2001 - 2002	Theodor-Fontane-Grundschule, Potsdam (Primary School)
2000 - 2001	Anne-Frank-Grundschule, Berlin (Primary school)

Professional Experience

10.2022 - 12.2023	Visiting Researcher, Physics of Nanostructured Materials, Physics Department, University of Vienna, Austria, *STEM measurements on functionalized graphene samples*
04.2020 - 10.2020	Research Assistant, Physics Department E20, Technical University of Munich, *Prolongation of the Master Project: hBN on Ir(100)*
05.2019 - 15.08.2019	Research Industry Internship (remunerated), R&D, Clariant Produkte Deutschland GmbH, Heufeld, Role: Project Manager and Researcher: *Pilot test for the development of a recycling process for Cu-Zn-Pallets*
10.2018 - 03.2020	Administration und Assistance of Munich Catalysis, Alliance of Clariant und TUM, Tasks: *Web-appearance, Project Management, Collecting Statistics, Administrative Assistance*
06.2017 - 09.2018	Student Assistant, Public Sector, TUM ForTe, Department for Patents and Licenses
10.2016 - 03.2017	Research Assistant, Institute for Surface Science and Catalysis (IOK), University of Ulm, *Prolongation of the Bachelor Project*
04.2016 - 09.2016	Research Assistant, Institute of Inorganic Chemistry 2, University of Ulm, *Role: Laboratory Tutor for Students*
04.2015 - 09.2015	Research Assistant, Institute of Inorganic Chemistry 2, University of Ulm, *Role: Laboratory Tutor for Students*
2014 - 2017	Barista at Casa Café, Walfischgasse 18, Ulm
2011 - 2014	Barista at Holankabar, Kleiner Schlossplatz, Stuttgart

Achievements

Publications

Chesnyak, V., Panighel, M., Namar, A., Markevich, A., Bui, T. A., ... & Africh, C. *Scalable Bottom-up Synthesis of Co-Doped Graphene with Unprecedented Stability and Versatility.* In preparation

Chesnyak, V., Panighel, M., Stavrić, S., Povoledo, D., ... & Africh, C., *Anchored Metal Nanoclusters Withstanding Realistic Catalytic Conditions.* In preparation

Chesnyak, V., Cuxart, M. G., Baranowski, D., Seufert, K., ... & Auwärter, W. (2023). *Stripe-like hBN monolayer template for self-assembly and alignment of pentacene molecules.* Small, accepted September 2023.

Stavrić, S., Chesnyak, V., Del Puppo, S., Panighel, M., Comelli, G., Africh, C., Zeljko, S. & Peressi, M. (2022). *1D selective confinement and diffusion of metal atoms on graphene.*

Carbon, accepted September 2023. 10.1016/j.carbon.2023.118486

Chesnyak, V., Stavrić, S., Panighel, M., Comelli, G., Peressi, M., & Africh, C. (2022). *Carbide coating on nickel to enhance the stability of supported metal nanoclusters.* Nanoscale, 14(9), 3589-3598. 10.1039/D1NR06485A

Stavrić, S., Chesnyak, V., Panighel, M., Comelli, G., & Africh, C. & Peressi, M. (2022). *Cobalt on nickel surfaces and the role of carbide on its stability.* Il Nuovo Cimento C, 6, 177. 10.1393/ncc/i2022-22177-5

Cuxart, M. G., Seufert, K., Chesnyak, V., Waqas, W. A., Robert, A., Bocquet, M. L., ... & Auwärter, W. (2021). *Borophenes made easy.* Science advances, 7(45), eabk1490. 10.1126/sciadv.abk1490

Klein, J., Chesnyak, V., Low, M., Schilling, M., Engstfeld, A. K., & Behm, R. J. (2019). *Selective Modification and Probing of the Electrocatalytic Activity of Step Sites.* Journal of the American Chemical Society, 142(3), 1278-1286. 10.1021/jacs.9b10201

Award

Fernando Tommasini Award: *For the most comprehensible presentation during our Annual Workshop* (2022) University of Trieste

Talk

Stabilization and reactivity of supported Co nanostructures (2022) European Conference on Surface Science, Esch Belval, Luxembourg

Posters

Cobalt incorporated in graphene – A stable single atom catalyst (2023) Gordon Research Conference, Chemical Reactions at Surfaces, Lucca, Italy

How to stabilize small metal clusters on graphene, (2022) European Workshop on Epitaxial Graphene and 2D Materials, St. Moritz, Switzerland

Towards synthesis and characterization of heterogeneously doped graphene nanostructures (2021) Graphene Online & 2DM Conference, Online conference

Pilot test for the development of a recycling process for Cu-Zn-Pallets, (2019) Department of Syngas, Clariant Products

Patent

Borophene Synthesis, *Application for International (PCT) patent,* Status: Resubmitted, Technical University of Munich

Supervision

Master's Thesis supervision of Daniele Povoledo, *Stability and reactivity of cobalt clusters deposited on a graphene layer grown on nickel* (2022) University of Trieste

Master's Thesis supervision of Alessandro Namar, (2022) University of Trieste

Skills

Outstanding communication, teamwork and problem-solving mindset

Languages: German, English, Russian; Basics: French, Italian, *MATLAB, Java*

Scientific software as LabVIEW, IGOR, Origin, ChemDraw, MestReNova, Microsoft Office, Latex

Databases as SciFinder, Reaxys, Patent Databases, Web design with Typo3

Special interest: Climate action and sustainability, stock market

Trieste, 02.10.2023