Daniele Nazzari – Academic CV

Contact Details:

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Publications: https://www.webofscience.com/wos/author/record/AEC-2946-2022

Research Focus:

I have obtained my PhD in 2021 at TU Vienna, with a thesis regarding the epitaxial growth and characterization of 2D silicon layers. I am currently working as a postdoctoral researcher in the group of Prof. Walter M. Weber at the Institute of Solid-State Electronics of TU Vienna. My current research focuses on the investigation of Schottky-Junction transistors for the realization of non-volatile, reconfigurable electronics for neuromorphic applications via the integration of a ferroelectric gate oxide.

Academic Milestones:

Since 2021	University Assistant (Postdoctoral Researcher)
2017-2021	Technical University of Vienna PhD student at the Institute of Solid-State Electronics
2014-2017	Università Statale di Milano (Italy) Master Program: “Solid-State Physics” Master Thesis at the Agrate – Unit (IMM), Milano, Italy
2010-2014	Università Statale di Milano (Italy) Bachelor Program: “Physics”

Ten Most Important Publications:

1. Nazzari, D., Wind, L., Sistani, M., Mayr, D., Kim, K., Wahler, V., and Weber, W.M. (2025). Nonvolatile Reconfigurable Transistor via Ferroelectrically Induced Current Modulation. ACS Appl. Mater. Interfaces. https://doi.org/10.1021/acsami.4c16400.

2. Nazzari, D., Genser, J., Ritter, V., Bethge, O., Bertagnolli, E., Grasser, T., Weber, W.M., and Lugstein, A. (2022). Epitaxial Growth of Crystalline CaF2 on Silicene. ACS Appl. Mater. Interfaces *14*, 32675–32682. https://doi.org/10.1021/acsami.2c06293.

3. Cianci, E., Nazzari, D., Seguini, G., and Perego, M. (2018). Trimethylaluminum Diffusion in PMMA Thin Films during Sequential Infiltration Synthesis: In Situ Dynamic Spectroscopic Ellipsometric Investigation. Adv. Mater. Interfaces *5*, 1801016. https://doi.org/10.1002/admi.201801016.

4. Nazzari, D., Genser, J., Ritter, V., Bethge, O., Bertagnolli, E., Ramer, G., Lendl, B., Watanabe, K., Taniguchi, T., Rurali, R., et al. (2021). Highly Biaxially Strained Silicene on Au(111). J. Phys. Chem. C *125*, 9973–9980. https://doi.org/10.1021/acs.jpcc.0c11033.

5. Nazzari, D., Genser, J., Sistani, M., Bartmann, M.G., Cartoixà, X., Rurali, R., Weber, W.M., and Lugstein, A. (2023). Reliably straining suspended van der Waals heterostructures. APL Mater. *11*, 111123. https://doi.org/10.1063/5.0166460.

6. Fuchsberger, A., Wind, L., Nazzari, D., Kühberger, L., Popp, D., Aberl, J., Navarrete, E.P., Brehm, M., Vogl, L., Schweizer, P., et al. (2024). A Run-Time Reconfigurable Ge Field-Effect Transistor With Symmetric On-States. IEEE J. Electron Devices Soc. *12*, 83–87. https://doi.org/10.1109/JEDS.2024.3350209.

7. Genser, J., Nazzari, D., Ritter, V., Bethge, O., Watanabe, K., Taniguchi, T., Bertagnolli, E., Bechstedt, F., and Lugstein, A. (2021). Optical Signatures of Dirac Electrodynamics for hBN-Passivated Silicene on Au(111). Nano Lett. *21*, 5301–5307. https://doi.org/10.1021/acs.nanolett.1c01440.

8. Fuchsberger, A., Wind, L., Sistani, M., Behrle, R., Nazzari, D., Aberl, J., Prado Navarrete, E., Vukŭsić, L., Brehm, M., Schweizer, P., et al. (2023). Reconfigurable Field-Effect Transistor Technology via Heterogeneous Integration of SiGe with Crystalline Al Contacts. Adv. Electron. Mater. *9*, 2201259. https://doi.org/10.1002/aelm.202201259.

9. Ritter, V., Genser, J., Nazzari, D., Bethge, O., Bertagnolli, E., and Lugstein, A. (2019). Silicene Passivation by Few-Layer Graphene. ACS Appl. Mater. Interfaces *11*, 12745–12751. https://doi.org/10.1021/acsami.8b20751.

10. David, M., Doganlar, I.C., Nazzari, D., Arigliani, E., Wacht, D., Sistani, M., Detz, H., Ramer, G., Lendl, B., Weber, W.M., et al. (2024). Surface Protection and Activation of Mid-IR Plasmonic Waveguides for Spectroscopy of Liquids. J. Light. Technol. *42*, 748–759. https://doi.org/10.1109/JLT.2023.3321034