

Master Thesis:

Design and fabrication of THz elements using 3D direct metal printing

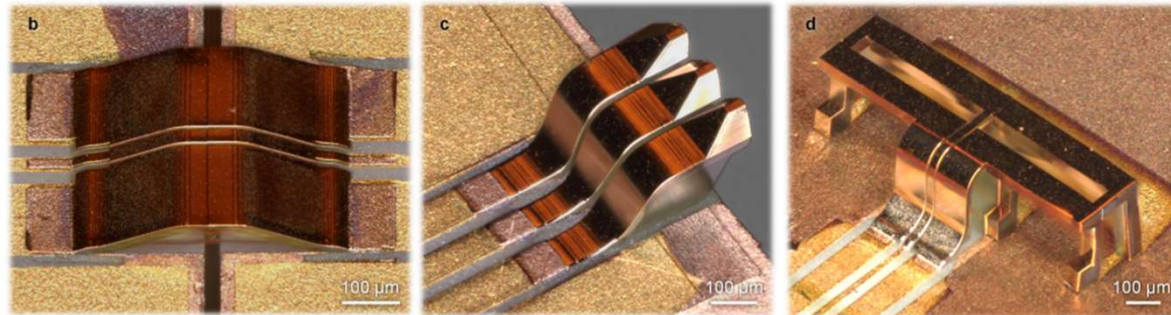
Our research institute is exploring innovative approaches to fabricate micrometer- and nanometer-scale metallic structures using additive manufacturing technique. This cutting-edge technology offers the potential to produce THz assemblies without relying on complex fabrication methods or costly high-vacuum metal deposition and masking processes.

The project focuses on leveraging 3D printing to create practical THz components, such as interconnects, waveguides, and antennas. The work will begin with the design and simulation of these elements using advanced commercial software. The next stage involves translating these designs into reality by employing fully 3D-printed solutions, thereby bypassing traditional masking and high-vacuum processes.

If you're passionate about additive manufacturing and THz technology and eager to contribute to pioneering research, we invite you to join us for this exciting master thesis opportunity.



<https://www.exaddon.com/>



P. Maier, et al. *arXiv preprint arXiv:2401.03316* (2024)

Your tasks:

- Numerical simulations
- 3D printing
- Participation in characterization experiments

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