

Do you want to influence the future of electronics devices?

Electronic computing devices from the 1940s could fill up a big room. In comparison, now we have electronic devices that fits on our hand with enormous capability. Unfortunately, the current silicon-based technology is facing insurmountable challenge. One potential solution is **molecular electronics**. This field aims to

build computing devices out of organic molecules.

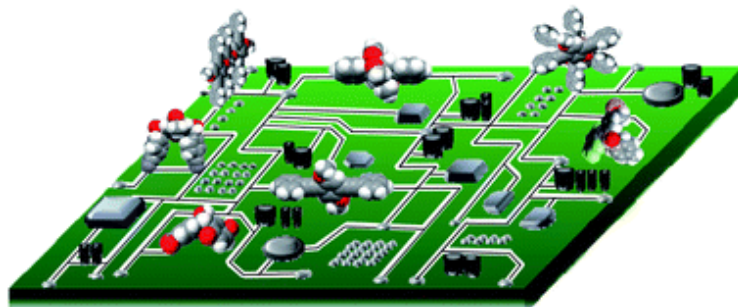


Figure: Graphic illustration of integrated circuit based on organic molecules

Project idea:

We are working on a terminal alkyne protection strategy using photo-removable group. The goal of the project is to release a terminal alkyne on-demand through a facile, efficient and light-driven route. Subsequently, the released alkyne will be used to make a molecular wire through click reaction, for instance.

Aims

- Learn and utilize various spectroscopic techniques to investigate the efficiency of candidate molecules.
- Involve in the design and synthesis of new functional organic molecules.

In this project, a motivated student, who wants to shape the future of electronics devices, will work with some candidate molecules at hand in close collaboration with a PhD student.

Master thesis project (30/60 credits)

For further inquiries, please contact:

Behabitu Tebikachew behabitu@chalmers.se Room 8145

Floor 8, Kurshus
Karl Börjesson (Assistant Professor)
Kasper Moth-Poulsen (Associate Professor)
karl.borjesson@gu.se

kasper.moth-poulsen
@chalmers.se