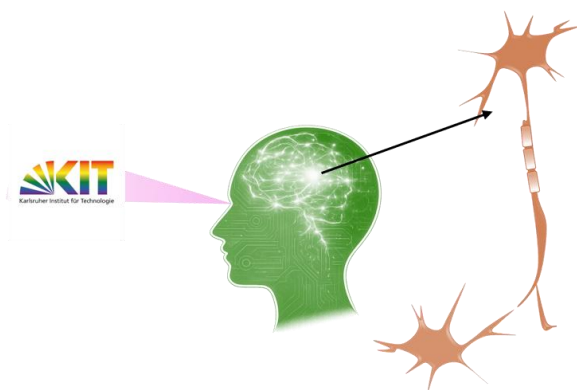


Master- | Bachelorarbeit | Praktikum

Ion-Controlled Devices for Retinomorph Computing



Motivation

Conventional vision systems consume significant power due to separate sensing and processing units. This project explores ion-controlled retinomorph devices that combine sensing, memory, and computation in a single platform, enabling energy-efficient, bio-inspired vision systems for next-generation AI and edge computing applications.

Tasks

- Optimization of mixed semiconductor materials
- Fabrication of electrochemical gated devices
- Opto-electrical characterizations of fabricated devices
- Evaluation and optimization of device performance, data analysis

Requirements

Interest for Research.

Background in Physics, Electrical Engineering, Materials Science or Chemistry

Previous knowledge in Organic Electronics is desirable but not necessary.

Research Field

Opto(electro)ionics,
Neuromorphic computing

Work Place

InnovationLab (iL)
Heidelberg

Practical Work in
Laboratory

Electrical Engineering,
Physics, Physical Chemistry,
Material Science

Start Date

Immediately

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