

# Flexible Electronics for Sensors and Actuators

## Flexible - light - ultrathin: Foil-based electronics for demanding applications

### Multilayer circuits

- Single layer thickness: 1 - 20  $\mu\text{m}$
- Layer-to-layer overlay:  $< 2 \mu\text{m}$

### Substrate material

- Polyimide, parylene, SU-8
- Planar arrays, linear probes, mesh electronics

### Conductive material

- Gold, Ti, Pt, ITO, graphene

### Microelectrodes for sensing

- Gold, Pt, Ir, TiN, IrOx, Ag/AgCl, CNT, graphene, PEDOT:PSS
- 2D and 3D geometries

### Electrical contacting

- Soldering and wire bonding

### Application-specific customization

- Encapsulation with barrier and insulation layers (glass, parylene)
- Biocompatible materials
- Chip-in-foil

### Development and production

- Customer- and application-specific designs
- Manufacturing of small batches with fast delivery

### Applications

- Biosensors
- Medical technology
- Neural implants

## Contact

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