Doping stretchy electronic hydrogels to create biocompatible sensors

Conductive polymer hydrogels (CPHs) are emerging sensor technologies:

- Organic tissues are soft and wet
- Electronics are hard and dry

CPHs and the future of sensors:

- Sensitive and selective with fast response
- Intelligent and integrated
- Biocompatible
- Multifunctional

With their biocompatibility and abundant sensor applications, CPHs have the potential of revolutionising the medical world.

Doping for tunability:

- Assembly and structure complexity
- Functional groups
- Crosslinking
- Polymer interactions

Conductive properties

Metal

Insulator