

1 Abstract

- overview over conventional biosensors
- possibilities, challenges of the new idea
- how the idea works

2 multiple biochemical coupling of signal processing with chemical actuators

- prospects
- fundamental and practical challenges
 - attention to composition, preparation and immobilization of the bio-computing surface layer
 - success depends in part on immobilization of the biocomputing reagent layer
 - system scalability
 - efficient transduction of the output signals
- high fidelity

3 common biosensing devices

- based on single input (analyte)