

Organic Bioelectronics Multiscale Sensing: state-of—the-art and issues

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I will discuss different strategies for devising label free diagnostics based on organic bioelectronics devices termed electrolyte gated organic transistors. I will comment on pros and cons of the possible approaches, show some examples and discuss some fundamental issues on the mechanisms of sensing and transduction, that make these devices extremely interesting for both the superb performance as sensors and transducers of electrical and chemical biological signals, and the subtle phenomena underlying their operations.