*CIRMM/生体分子マイクロエ学(Y. Rondelez Lab)

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専門分野 生体分子マイクロエ学

Complex in vitro behaviors

生体分子を用いたin vitro系での複雑な動的システムの構築

Networks of interacting chemical reactions can lead to very complex behaviors, the ultimate example being life itself. For example, inside live cell Gene Networks can be arranged into switches, gates, memory element or, oscillators. We want to build such dynamic systems, but in a artificial (in vitro) setting. To do this, we explore both homogeneous systems and more complex setup where diffusion and transport become key factors

- ◆DNA isothermal amplification reaction (DNA等温增幅反応)
- ◆Molecular computing (分子計算)
- ◆DNA based in vitro reaction networks (DNA分子によるin vitro反応ネットワーク)
- ◆Microchambers arrays (マイクロチャンバアレイによる分析)
- ◆Single molecule detection (一分子検出/観察)

