

Charge injection to DNA- $\pi$  band of base pairs with Fe doping

(DNAのFeドーピングによるベース対  $\pi$  バンドへの電荷注入)

What is the intrinsic physical properties of DNA?

ESR, SQUID as magnetic probes

○ Semiconductor

**Orbital Paramagnetism ?**

○ Charge injection

**Zn-DNA, metal ?**

○ Array of magnetic moments

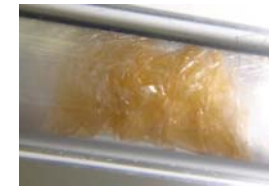
**Mn-DNA, AF ?**



$\text{FeCl}_2$



$\text{FeCl}_3$



**Fe-DNA**

Sample color:  $\text{Fe}^{3+}$

$\text{Fe} : 4s^2 3d^6$

