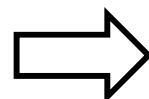
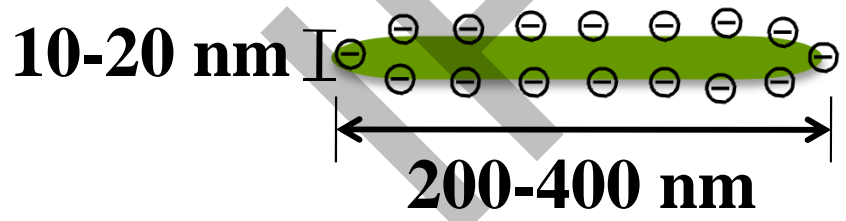
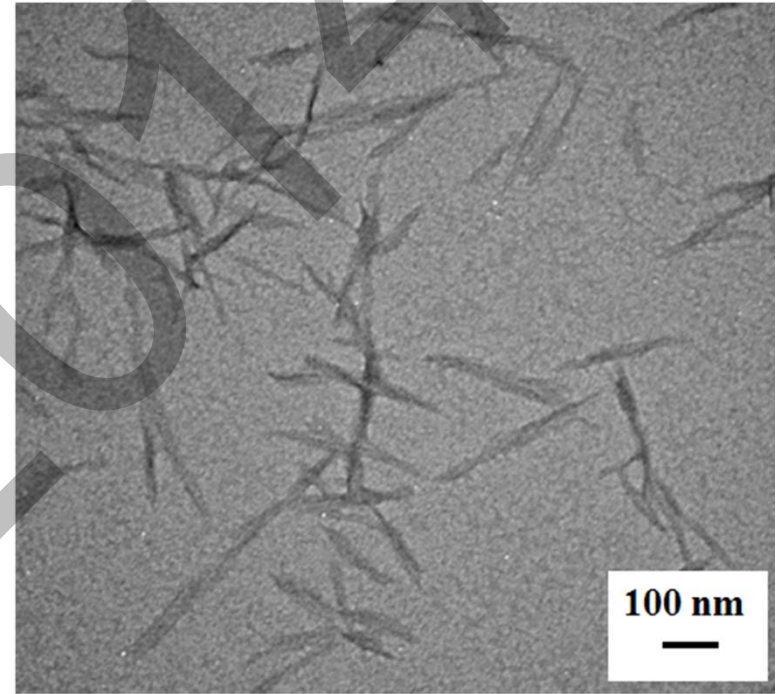


**Synthesis of β -cyclodextrin modified
cellulose nanocrystals (CNCs)@Fe₃O₄@SiO₂
superparamagnetic nanorods.**

Li Chen

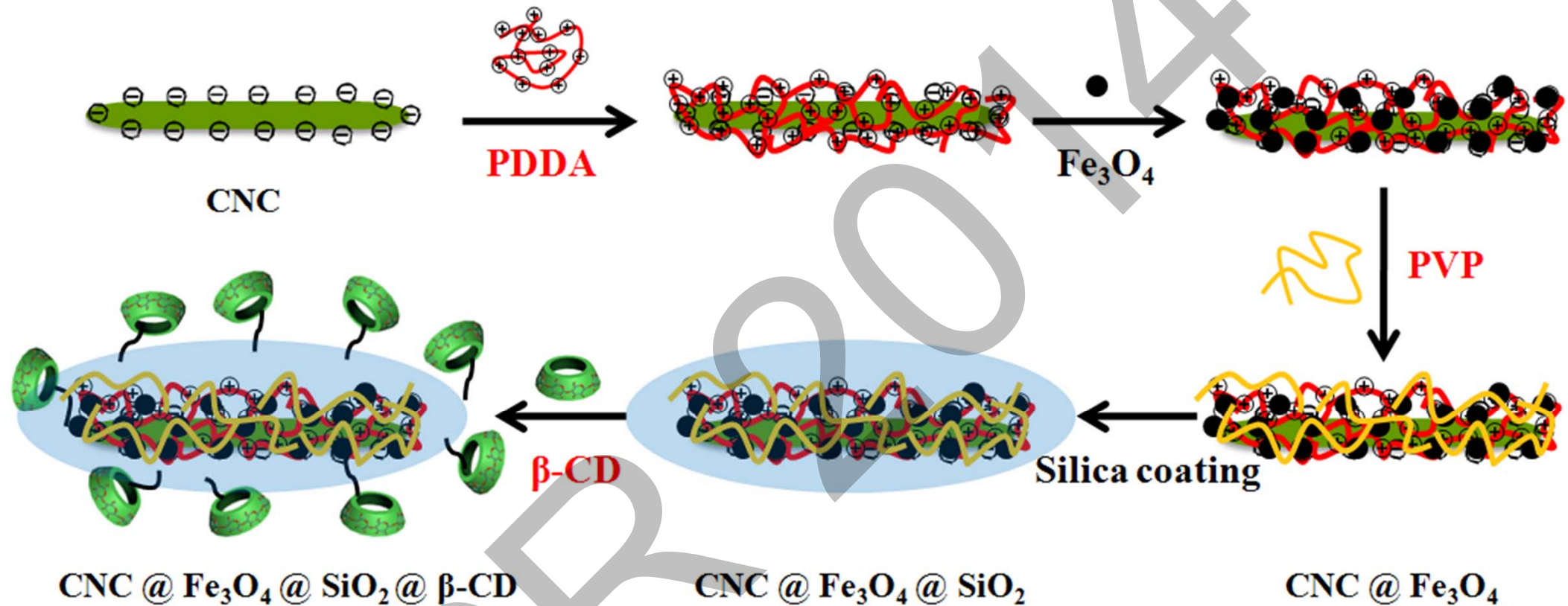
Supervisor: Prof. Michael Tam

Introduction



- Good mechanical strength**
- Regular rod-like structure**
- Sustainability**
- Environmentally friendly**
- Commercial availability**

Schematic pattern

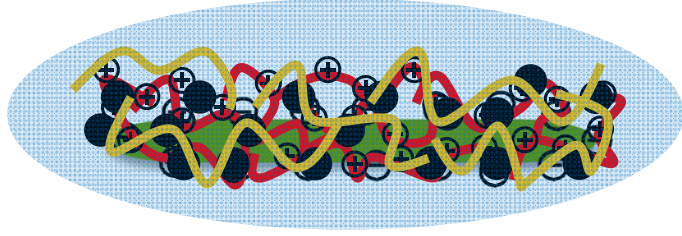


PDDA: poly(diallyldimethylammonium chloride).

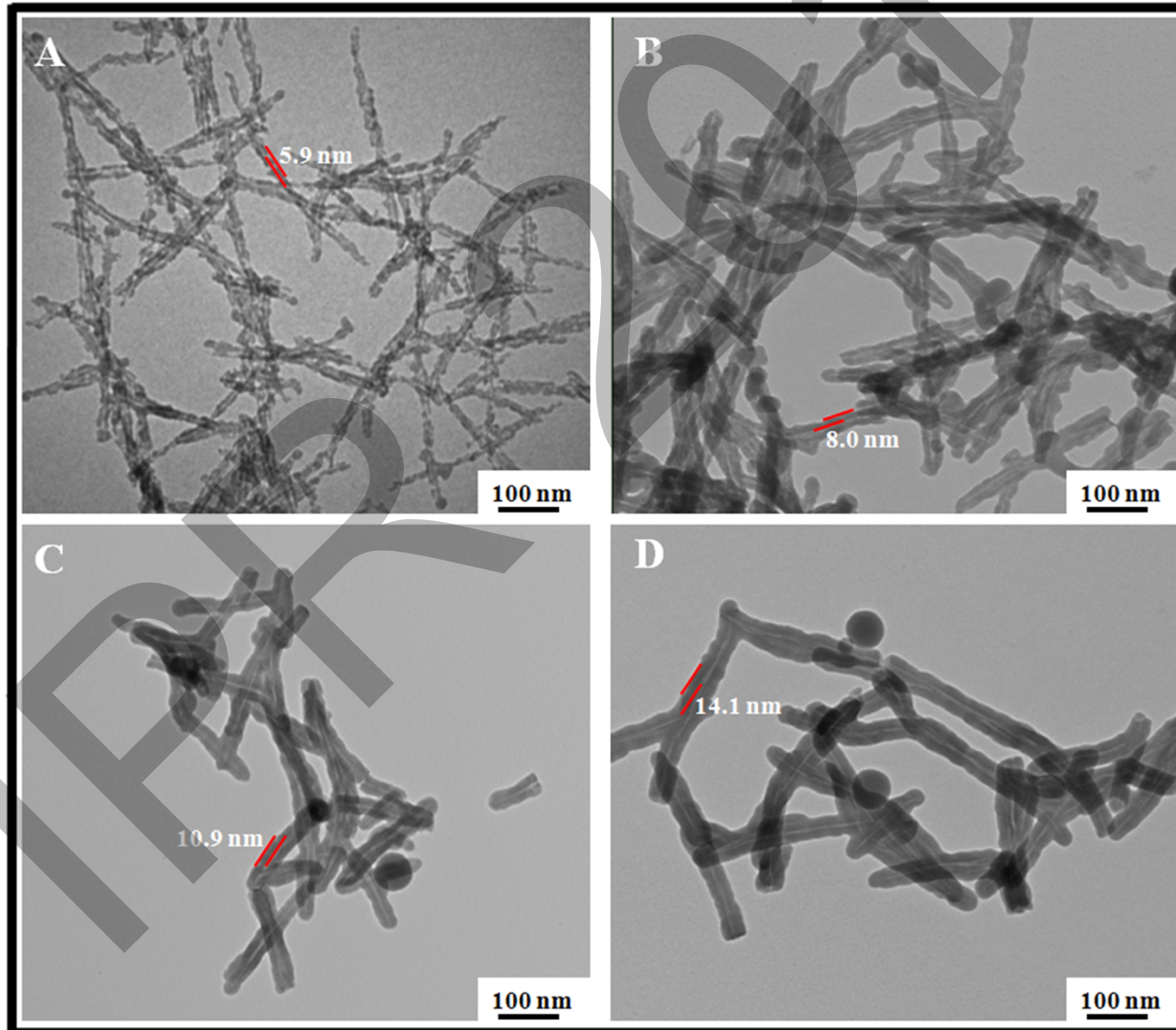
PVP: polyvinylpyrrolidone.

β-CD: β-cyclodextrin.

TEM



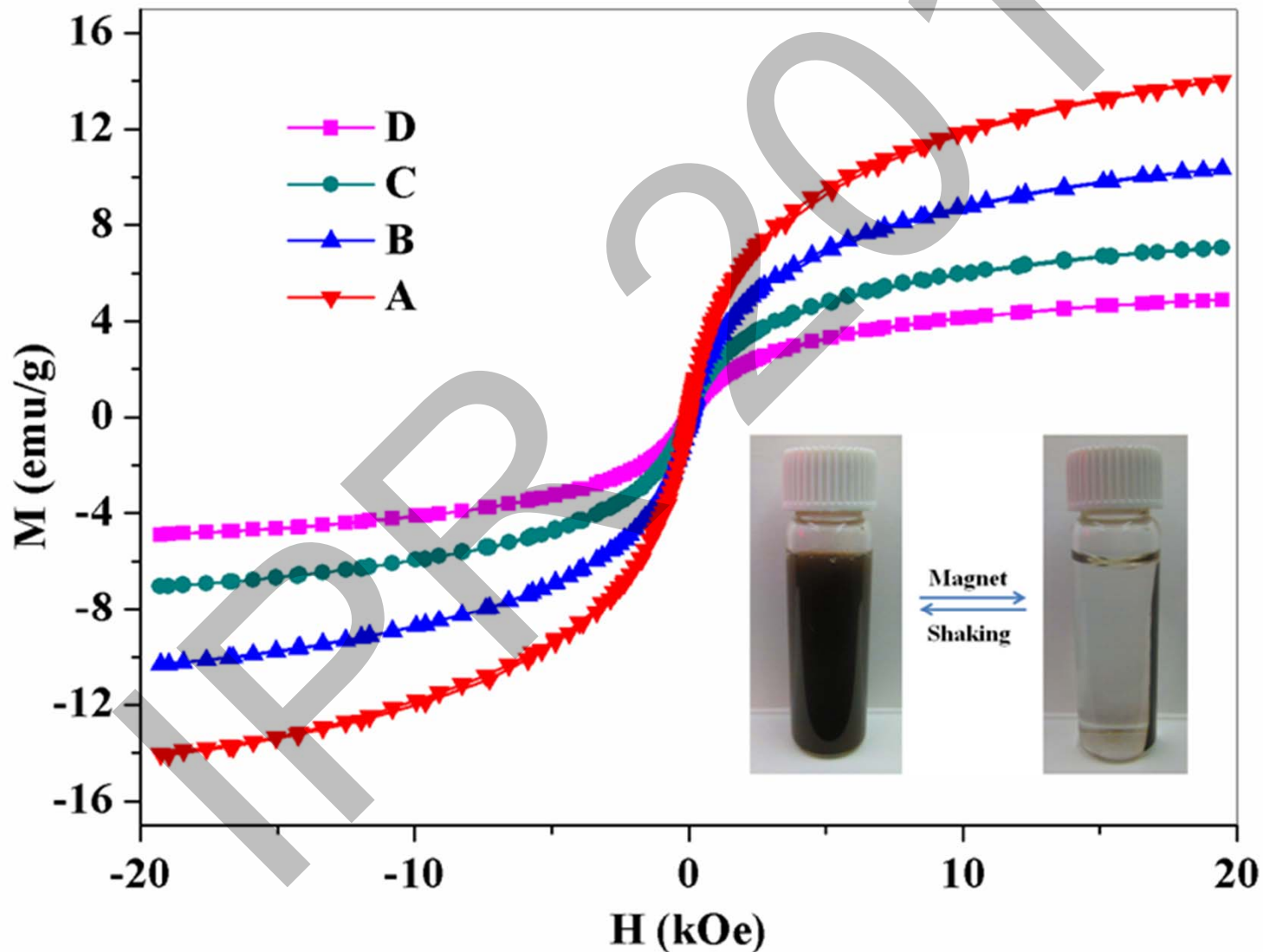
CNC @ Fe₃O₄ @ SiO₂



Magnetic hysteresis loops



CNC @ Fe₃O₄ @ SiO₂



Thanks!

Q & A