

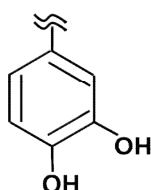
# Inorganic Nanoparticles

## Inorganic nanoparticles coated with block copolymers containing catechol segments

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### 1. Introduction

#### Catechol segment

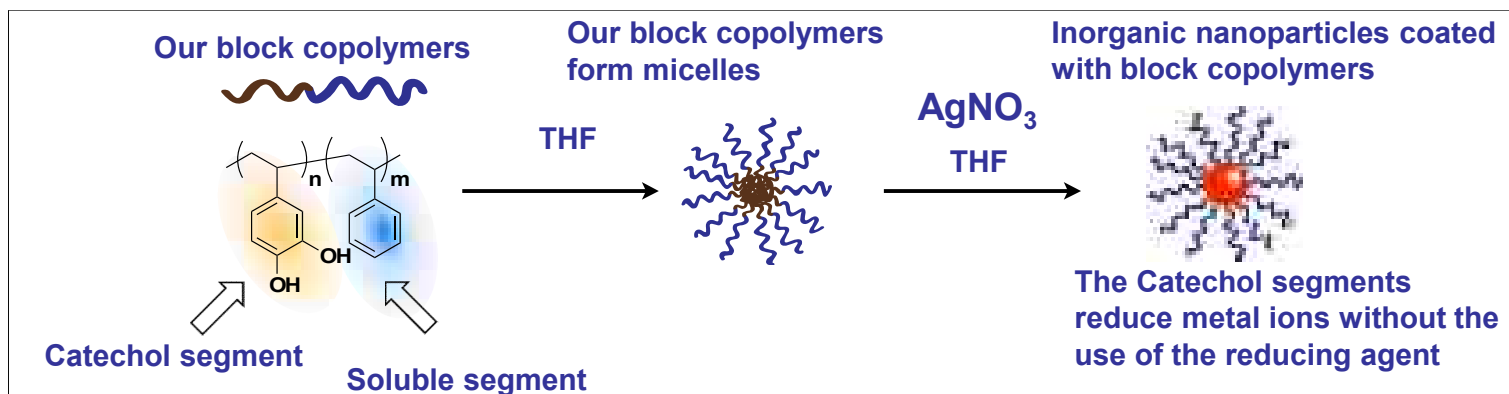


We invented new block copolymers containing Catechol segments. Major characteristics of the materials are...

1. No reducing agent is required.
2. No purification process is required.
3. The Catechol segments capture firmly inorganic nanoparticles(ex. metal ion).
4. The block copolymers with inorganic nanoparticles are adhered firmly to substrates.

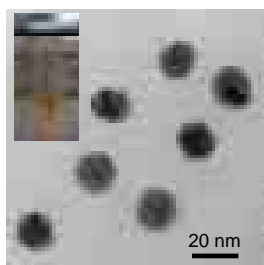
### 2. Process

The inorganic nanoparticles are formed in the micelles without using the reducing agent by our block copolymers containing Catechol segments in the side chain.

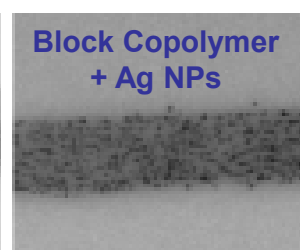
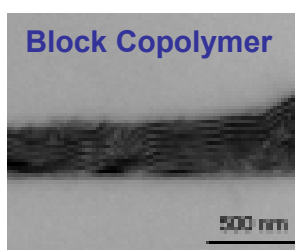
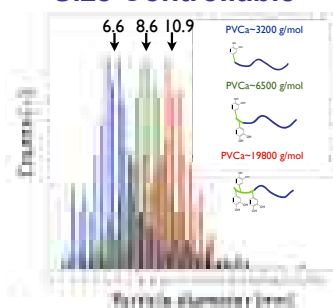


### 3. Experiment, Data, Characteristics

#### Fine Metal Nanoparticles



#### Size Controllable



### 4. Prospective Applications

- Wiring
- Catalyst
- Single-electron transistor

### 5. Patent Licensing Available

Patent No.: WO2015/129846

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