

# A comparison of work styles: Japan vs. USA

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# Outline

- Research at U-Tokyo
  - Modeling optical properties of metal nanoparticles
- Work style: Japan vs. USA
  - Controversial quotes
  - Japan vs. US style
  - Potential conflicts in research style
    - American in Japan
    - Japanese in USA

# Research Summary

Nano-NEW

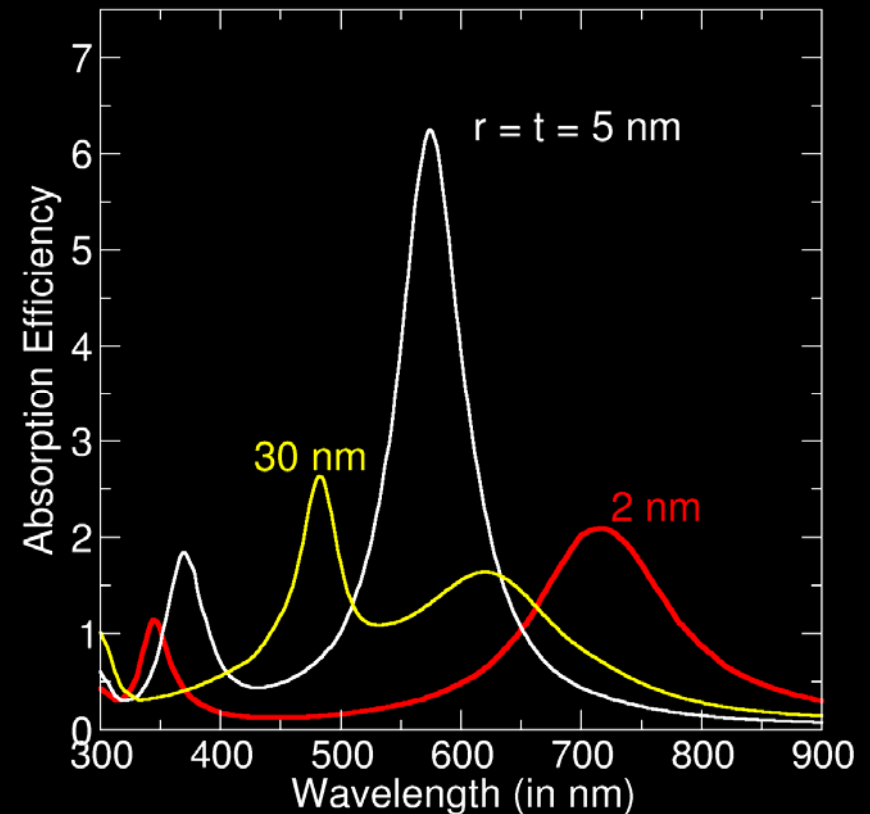
+



Gustav Mie

OLD  
math  
(1908!)

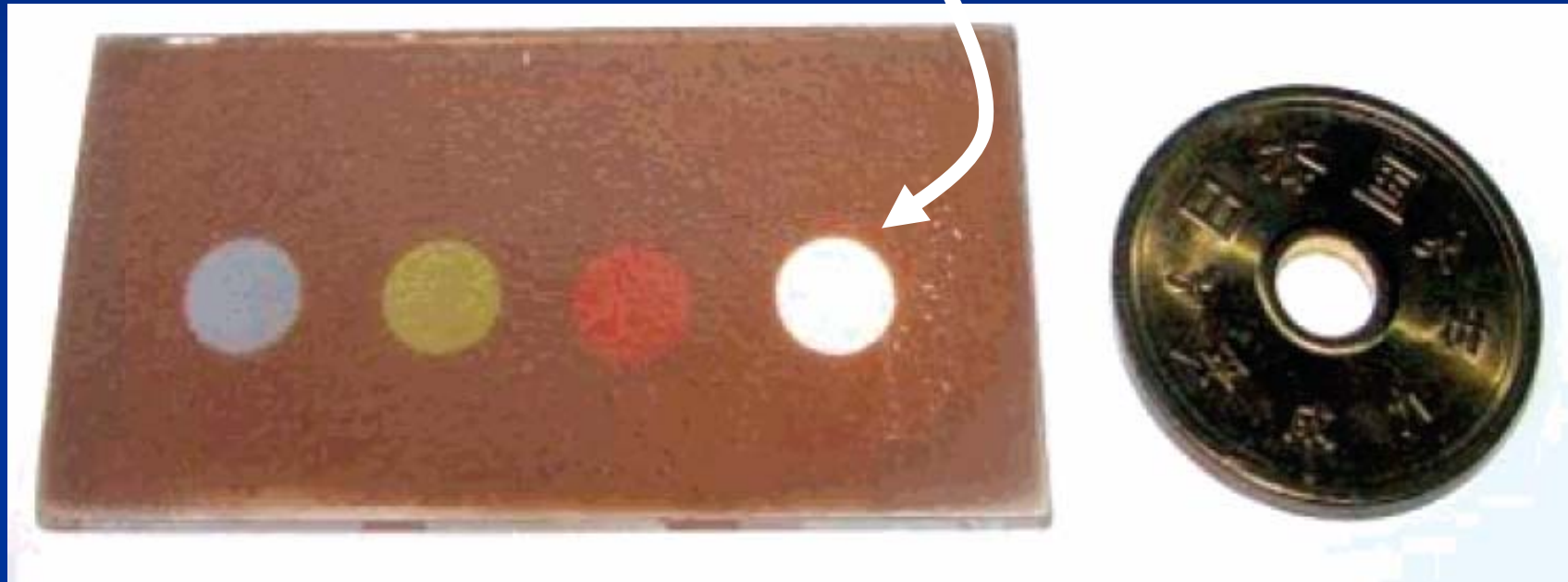
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Model of optical spectrum

# TiO<sub>2</sub> films in Tatsuma lab

usually white!

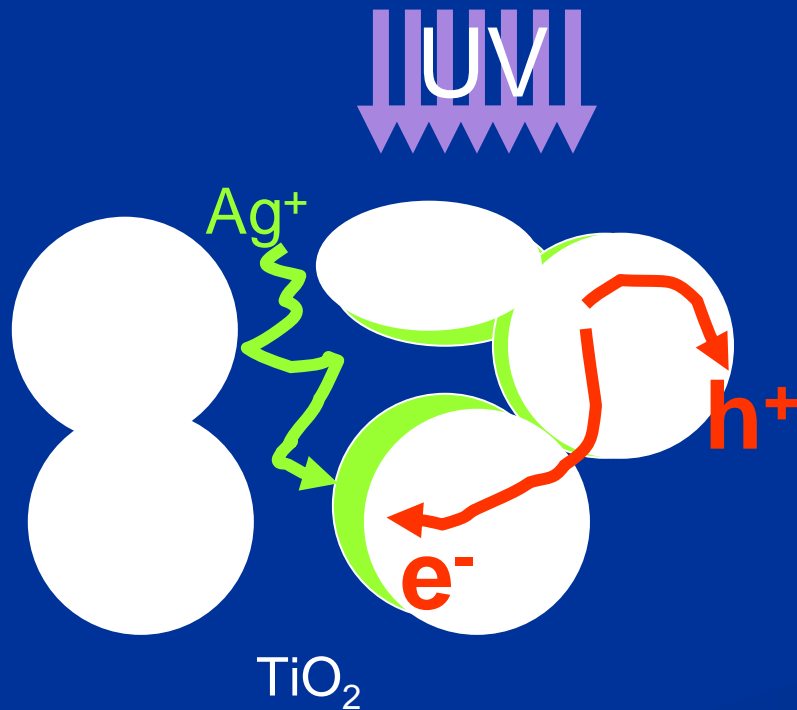
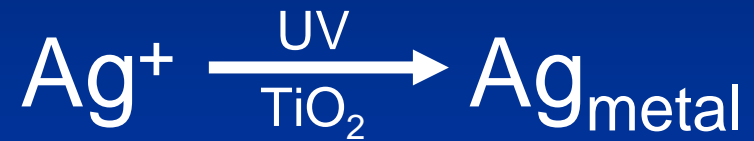


Naoi, Ohko, & Tatsuma, "TiO<sub>2</sub> films loaded with Ag Nanoparticles: control of multicolor photochromic behavior."

*JACS* 2004

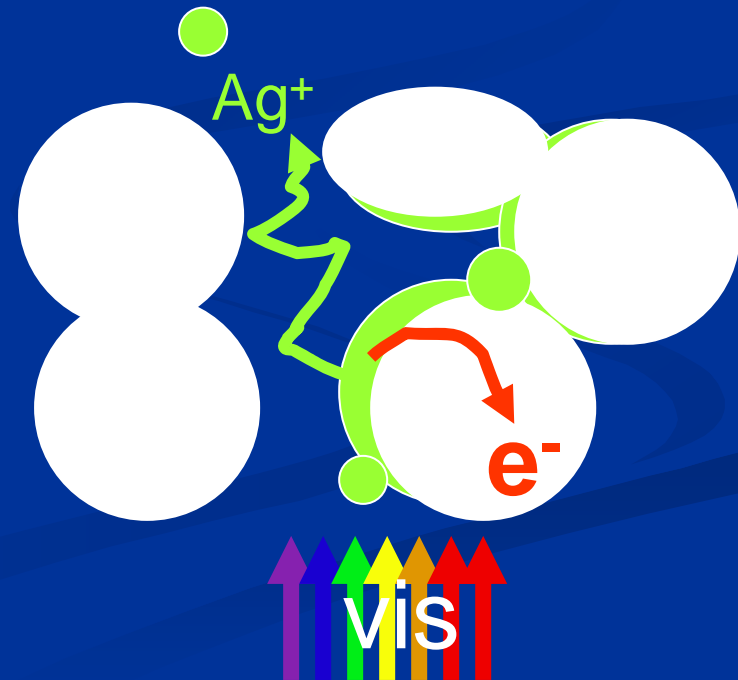
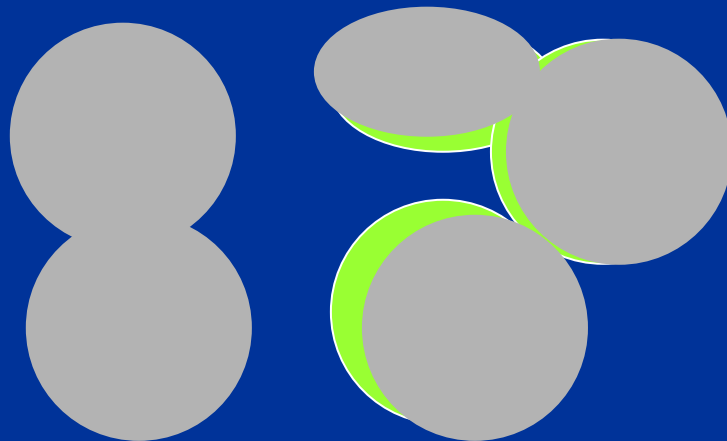
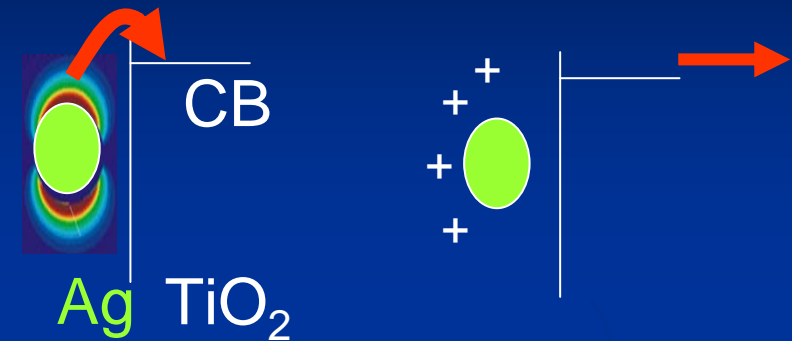
# Color change in TiO<sub>2</sub> & Ag film

## 1. Make film brown



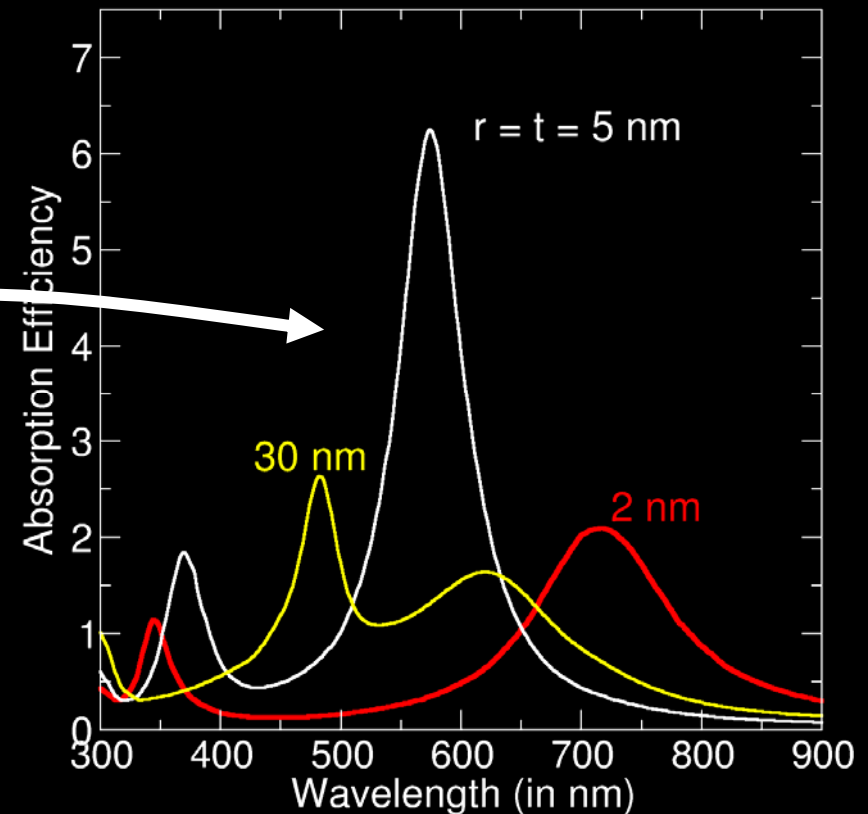
# Color change in TiO<sub>2</sub> & Ag film

## 2. Color Training

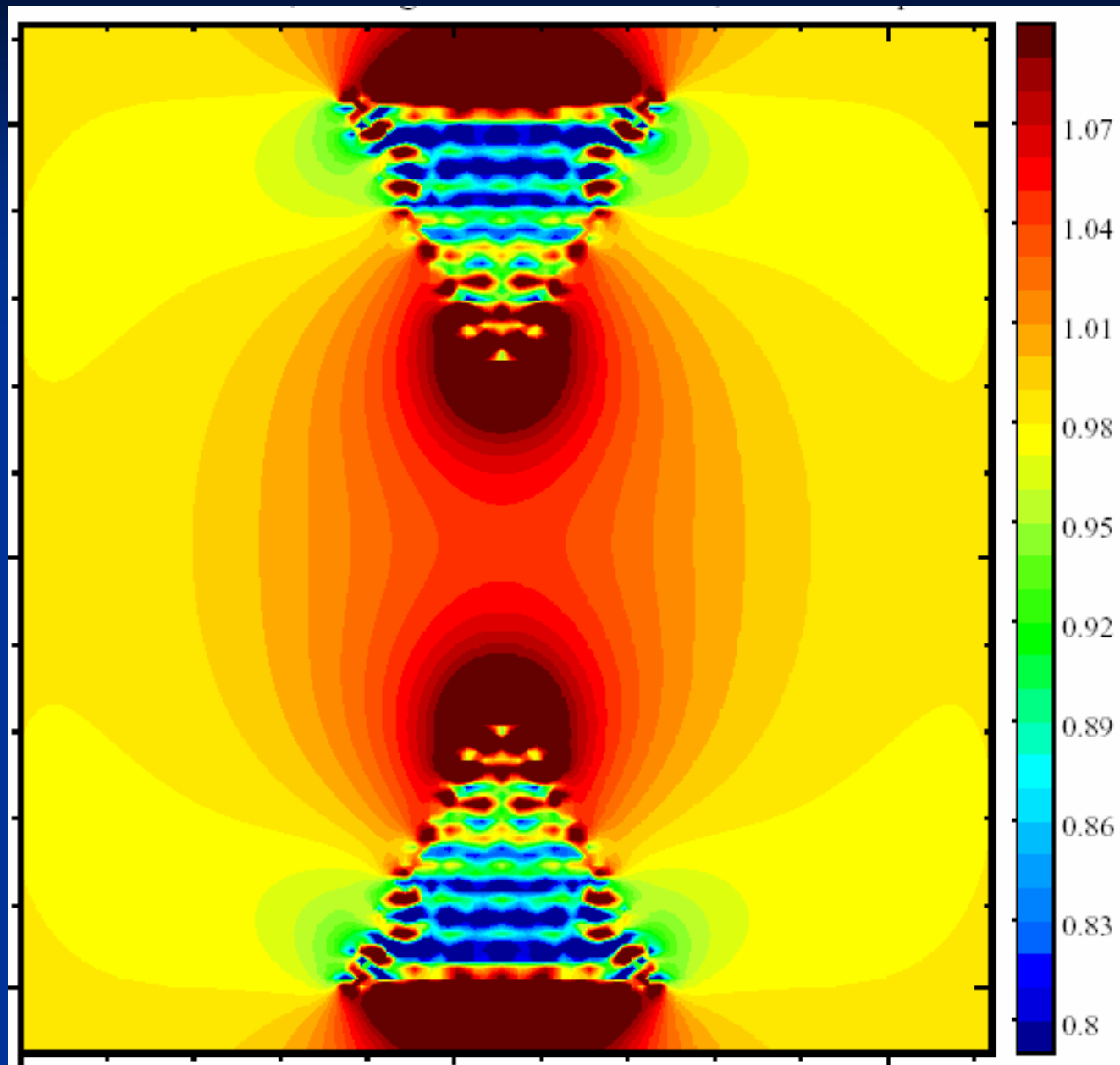


# Shape & size dependence

- Computer models aid understanding of measured optical spectra
- These core-shell Ag particles *probably* exist in the TiO<sub>2</sub> film



# Future research



Nano-  
particle  
optical  
coupling





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この場所に挿入されていた図を省略させて  
いただきます



Everyone's different!

# Japan vs. US research style\*

	Japan	US*
Formality	<ul style="list-style-type: none"><li>■ Neat dress = respect, "rank"</li></ul>	<ul style="list-style-type: none"><li>■ Not so important</li></ul>
Meetings & seminar	<ul style="list-style-type: none"><li>■ Read! Read!</li><li>■ Present results &amp; discuss after careful preparation</li></ul>	<ul style="list-style-type: none"><li>■ Talk! Talk!</li><li>■ Present results at almost any time, &amp; "brainstorming"</li></ul>

# Japan vs. US research style\*

	Japan	US
Meetings & seminar	■ ... ? (Conferences only?)	■ ~Weekly visiting speaker
Respect	■ Effort	■ Efficiency
Collaboration	■ “Keep it in the family”	■ Spread the wealth

# A US researcher in Japan...

- ... can easily feel **isolated**.
  - *Chance to discuss research ideas?*
  - *Lab members don't brainstorm "beta" or "alpha" ideas?*
  - *Am I really so scary?*
- ... can easily feel **frustrated**.
  - *Why waste time writing (& reading) hand-outs?*
  - *... and why is my lab & restroom so dirty? ☺*

# A Japanese researcher\*<sup>Maybe</sup> in the US...

- ... can easily feel **overwhelmed**.
  - *How can I understand the logic behind everything?*
  - *What if I make a mistake?*
- ... can easily feel **under-appreciated**.
  - *But English is my second language—don't you know it is difficult?*
  - *I spent 6 hours on this figure! Don't tell me so directly that it is all wrong!!*

# The Foreigner Rollercoaster

