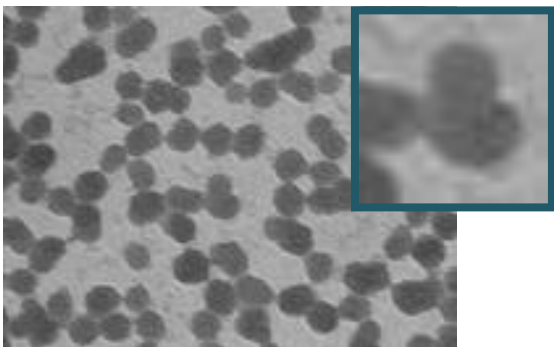
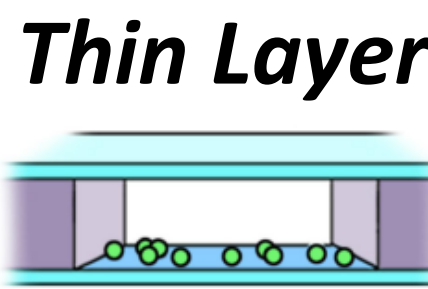
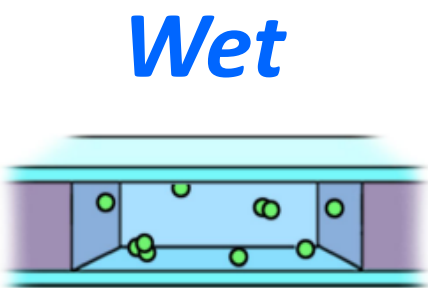
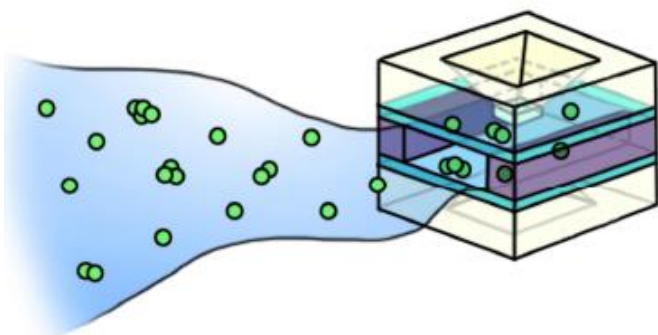


Liquid Sample TEM

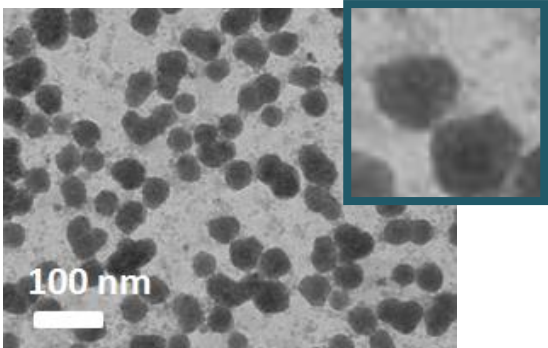
Characterize Nano-objects, Aggregates, and Agglomerates (NOAAs)
in Product’s Final Form or Relevant Media

◆ Our Technology (K-kit)

Specimen kit for observing the original morphology and physical state of nanomaterials
in liquid sample by TEM



The loaded liquid
sample is sealed and
imaged by TEM in
the native liquid
environment.



A proprietary sample
preparation protocol
preserves the original
morphology and physical
state with improved
imaging resolution.

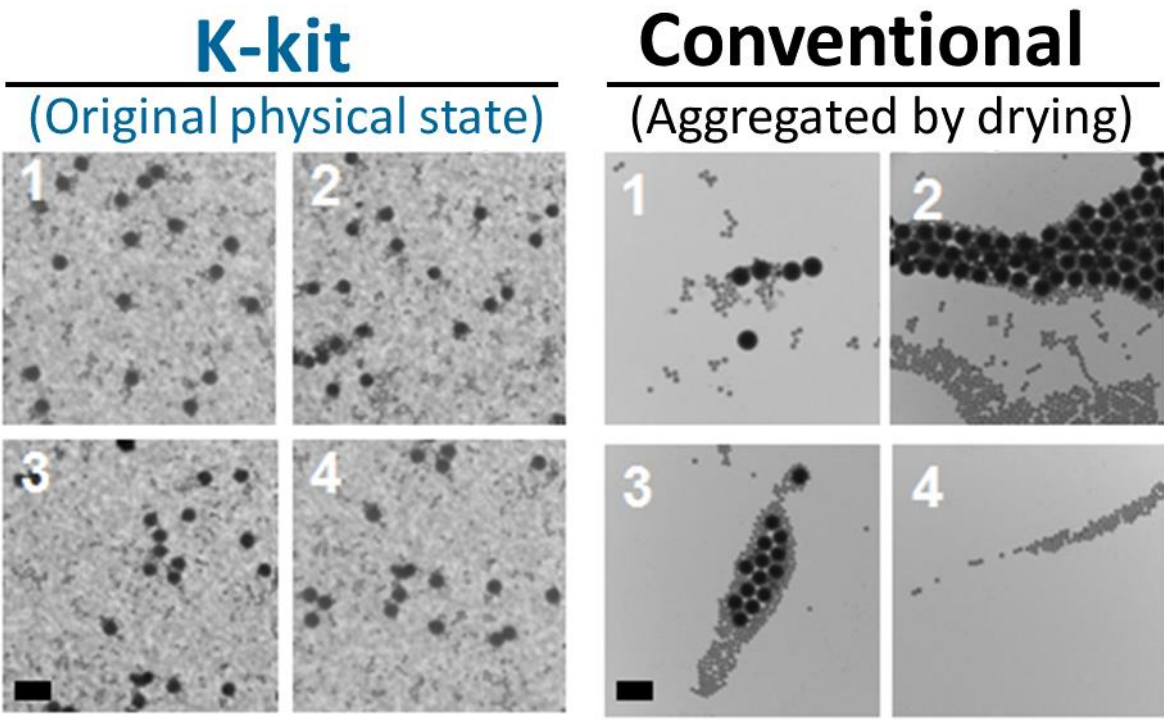
- ✓ US 7,807,979 B2 Oct. 5, 2010
- ✓ US(SUPTO) filed on 2012/07/09 with
filing number: 13/544,019
- ✓ Anal. Chem. 2012, 84, 6312-6316

* Undiluted CMP-slurry was directly loaded into K-kit to observe the primary and secondary abrasives by TEM.

◆ K-kit vs. Conventional

Physicochemical parameters	K-kit	Conventional
1. Composition	✓	✓
2. Size	✓	✓
3. Shape	✓	✓
4. Size distribution	✓	△
5. Aggregation/agglomeration state in relevant media	✓	✗
6. Particle Concentration	✓	✗
7. Liquid TEM observation	✓	✗

✓ Good △ Case dependent ✗ Not available



* NIST traceable polystyrene beads, Scale bar: 500 nm

Definitive:

Direct observation in product’s final form or relevant media, minimizing artifacts.

Quantitative:

Image-based statistical analysis of aggregation/agglomeration and particle concentration.

Comprehensive:

All physicochemical characterization requirements can be addressed.

Contact window: **Eva Chen** _ service@bioma-tek.com
Lin-Ai Tai _ project@bioma-tek.com

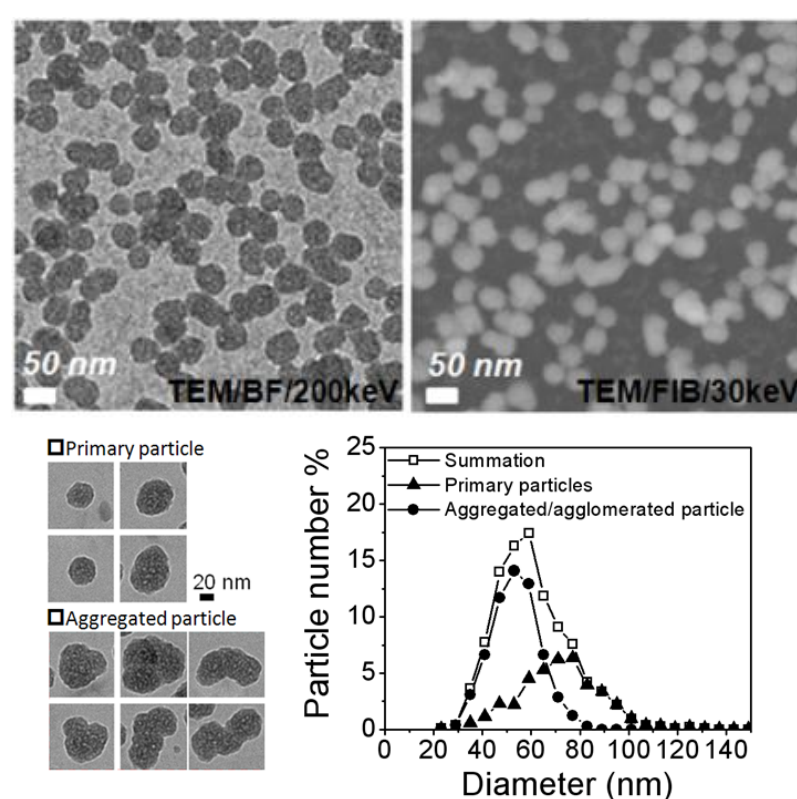
Nano in Products

Characterize Nano-objects, Aggregates, and Agglomerates (NOAAs)
in Electronics, Cosmetics, Foods, and Drugs, etc...

**Goes with the Emerging Trend
For Regulatory, Manufacturing, and R & D Purposes.**

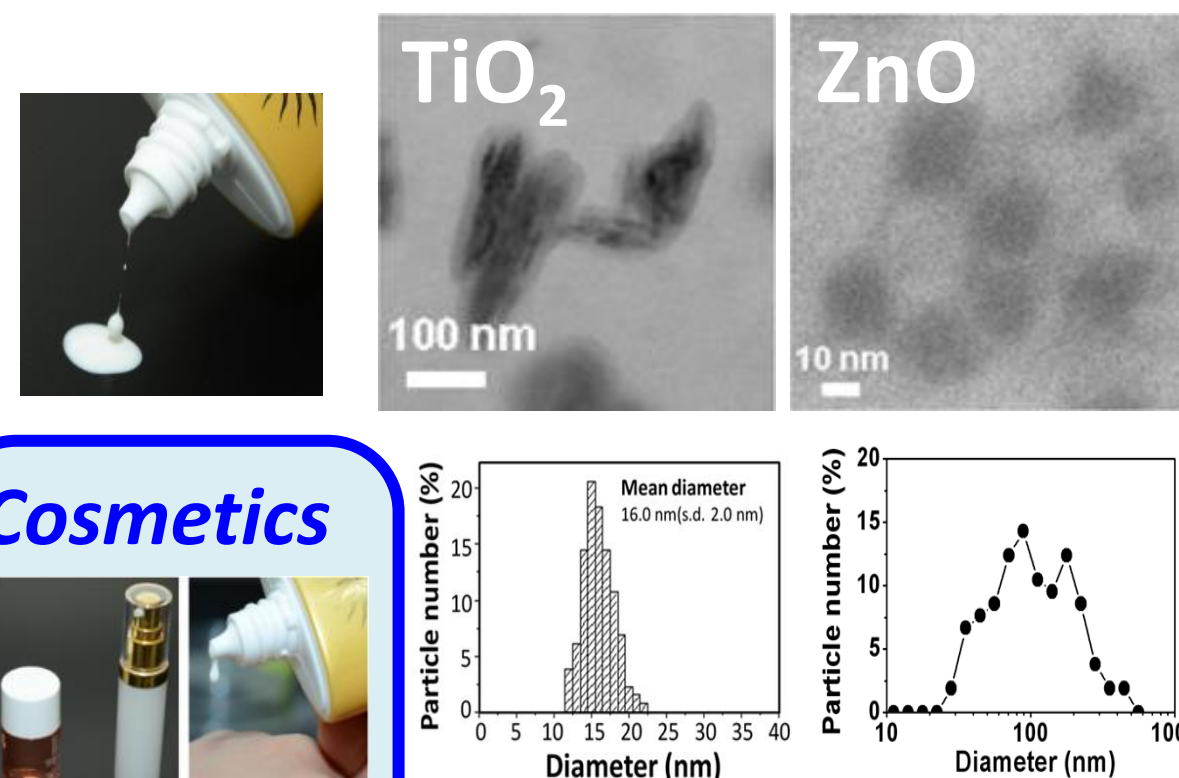
Slurry

- SiO₂ Nanoparticles in CMP Slurry



Lotion

- TiO₂ and ZnO Nanoparticles in Sunscreen



Electronics



Cosmetics



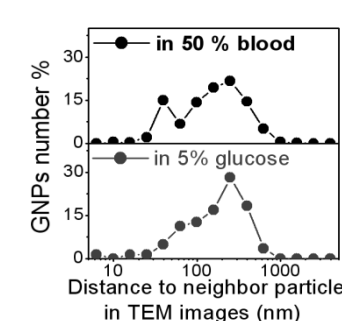
Foods



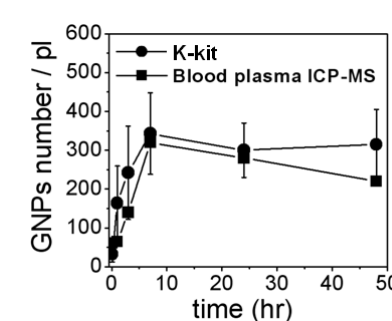
Drugs



Aggregation/agglomeration

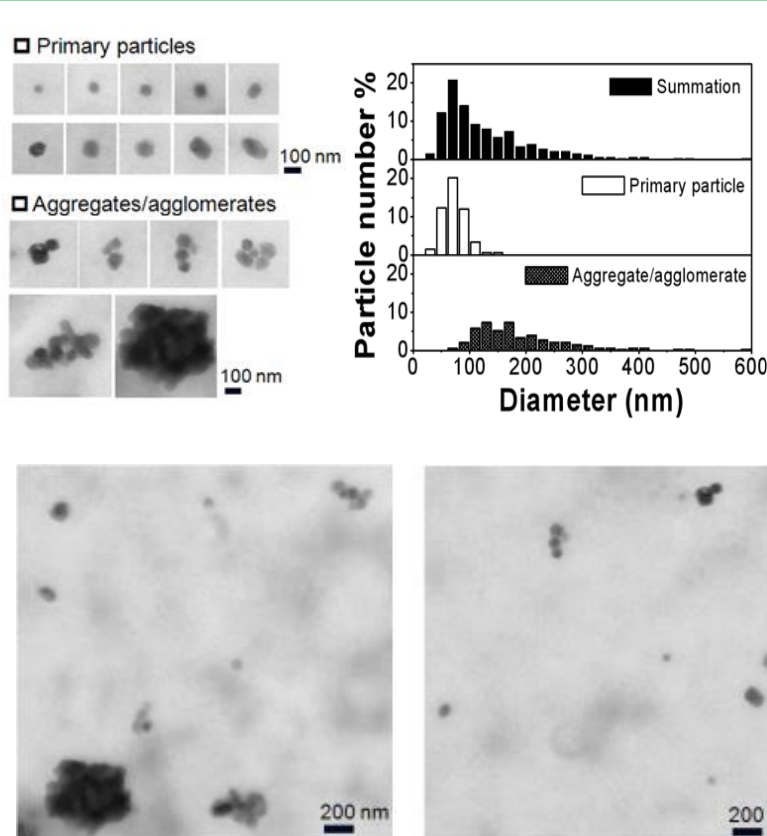


Particle concentration



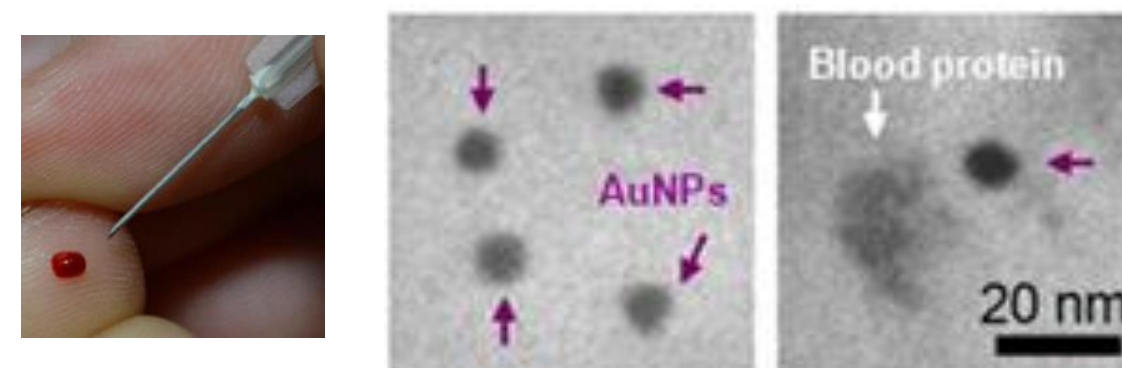
Beverage

- CaCO₃ Nanoparticles in milk



Bio Sample

- Au nanoparticles in blood



Contact window: **Eva Chen** _ service@bioma-tek.com
Lin-Ai Tai _ project@bioma-tek.com