

Nicole Collins: Sparknotes

Graduated from
Northwestern University in
2011 (BA Sociology, Gender
Studies)

Teach middle school
science at St. Francis
Indian School on Rosebud
Reservation in South
Dakota- entering 4th year

Spent 6 weeks at Georgia Tech as part of the
Summer Research for Teach For America-Native
Alliance Initiative STEM Teachers



Traditional Ecological Knowledge



"a cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings with one another and with their environment"."



What have I been doing at GIT?

- Shadowing! (shoutout to Nimmy, Natasha, James, Arnaldo)
- CCNs, PCVIs, Flow Cytometers, Contact Angles



CONTACT ANGLE

Create a bed of bacteria, and place a drop of water on top. Then measure the angle of the water droplet relative to the bacteria base.

The contact angle is related to the hydrophobicity of the bacteria.

We're trying to find out whether hydrophilic bacteria more readily nucleate droplets than hydrophobic bacteria.

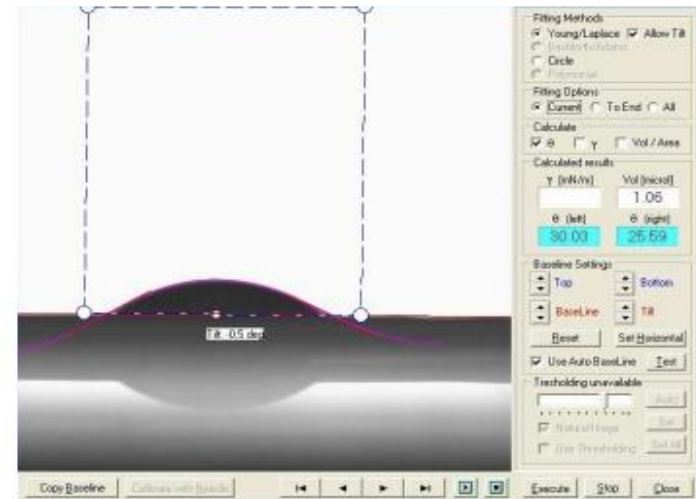


Figure 2a: Contact angle of a Hydrophilic Bacteria (ATL12)

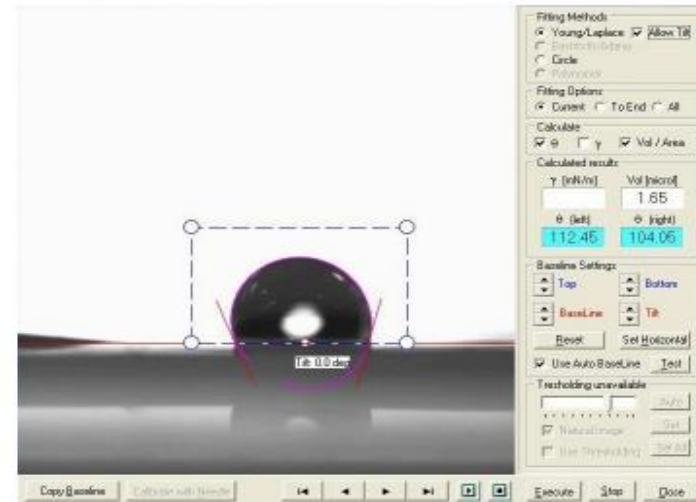


Figure 2b: Contact Angle of a Hydrophobic Bacteria (PSYN)

FLOW CYTOMETRY

Measures the number, fluorescence, and internal structure of particles.

Explore the detection limitations low concentrations of single-population samples and mixtures of bacteria.

