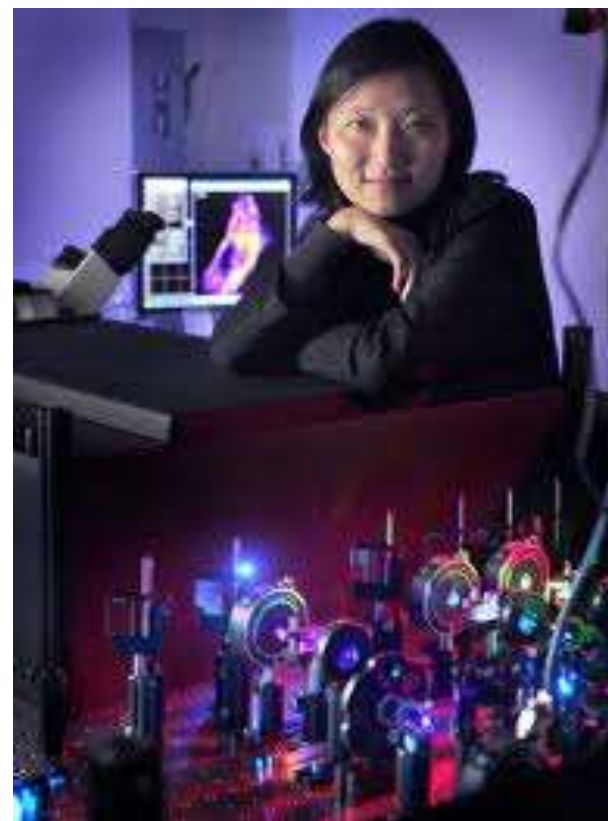


# Pre-AP Chemistry

September 13, 2011

## 1. Introduction



# Outline

- Course Introduction
- What Is Chemistry?

- Course Introduction
  - Meet Mr. Shank
  - Meet The Class
  - Syllabus
- What Is Chemistry?
  - Matter and Change
  - Current Technology

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# Meet Mr. Shank

Cambridge, MA



Beijing, China



Atlanta, GA



# Outline

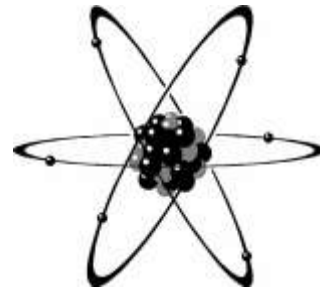
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# Meet The Class

1. Name
2. Hometown
3. Previous math and science classes
4. What you hope to learn
5. An interesting fact about you

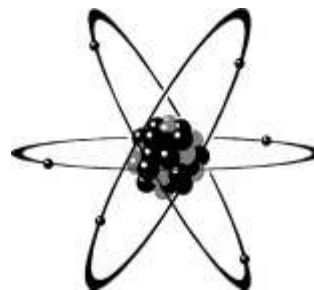
Mme Curie



# Meet The Class

1. Mr. Shank
2. Atlanta, GA, USA
3. Organic Chemistry, Quantum Mechanics, Diff. Eq.
4. Fun experiments, how awesome my students are
5. I love running, especially in the mud!

Mr. Shank



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# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

- Content
  - First Semester – Atoms to Solutions
  - Second Semester – Reactions to Advanced Topics

# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

- Labs
  - ~ 1 every two weeks
  - Lab reports
  - Safety
  - Fun!

# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

- Homework
  - Assigned every day
  - Collected every Thursday
  - Write legibly!
  - Independent work

# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

- Tests
  - ~1 each month, at the end of each unit
- Quizzes
  - ~ 1 each week, on Tuesday

# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

- Grading
  - Tests 60%
  - Homework 25%
  - Labs 10%
  - Participation 5%

# Syllabus

- Content
- Labs
- Homework
- Tests
- Grading
- Extra Help

- Extra Help
  - Before class
  - After class
  - Email me!

shank.bnds@gmail.com

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# Matter and Change

- Chemistry is the study of the composition and change of matter.



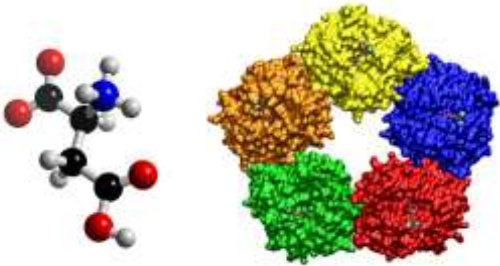
# Matter

- Matter has mass and occupies space.



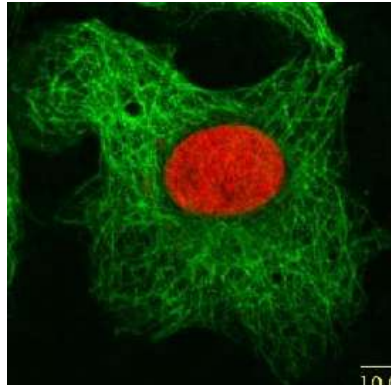
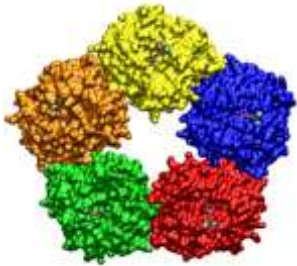
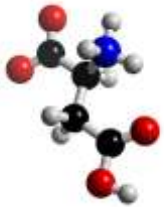
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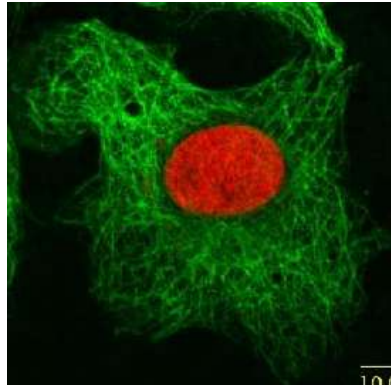
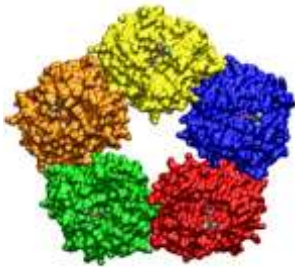
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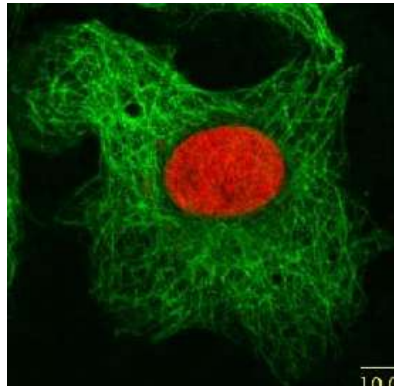
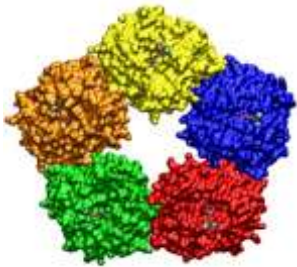
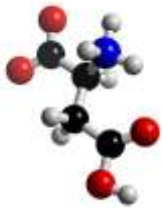
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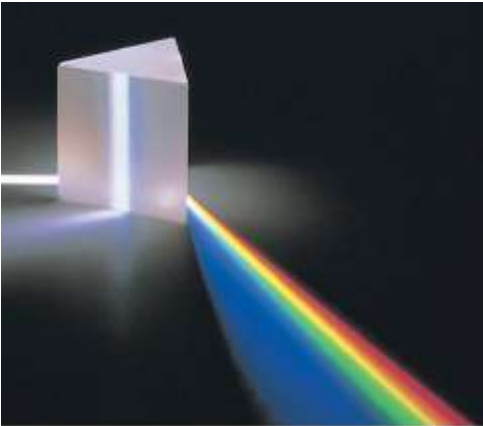


# Mini Quiz

- Question: Can you name something that is not matter?

# Mini Quiz

- Question: Can you name something that is not matter?



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- We will study the interactions of matter with other matter as well as matter with non-matter.

# Change

- Change can be physical or chemical.
  - We will discuss the difference in upcoming lectures



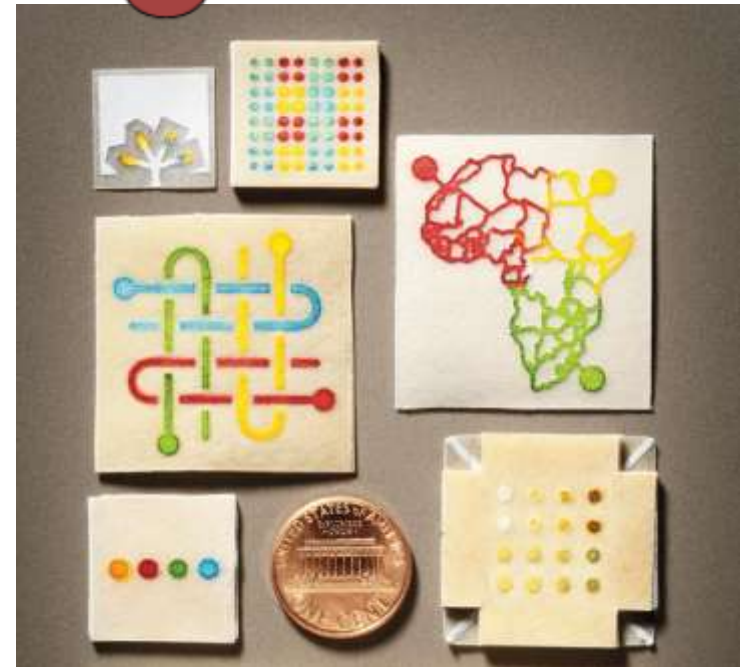
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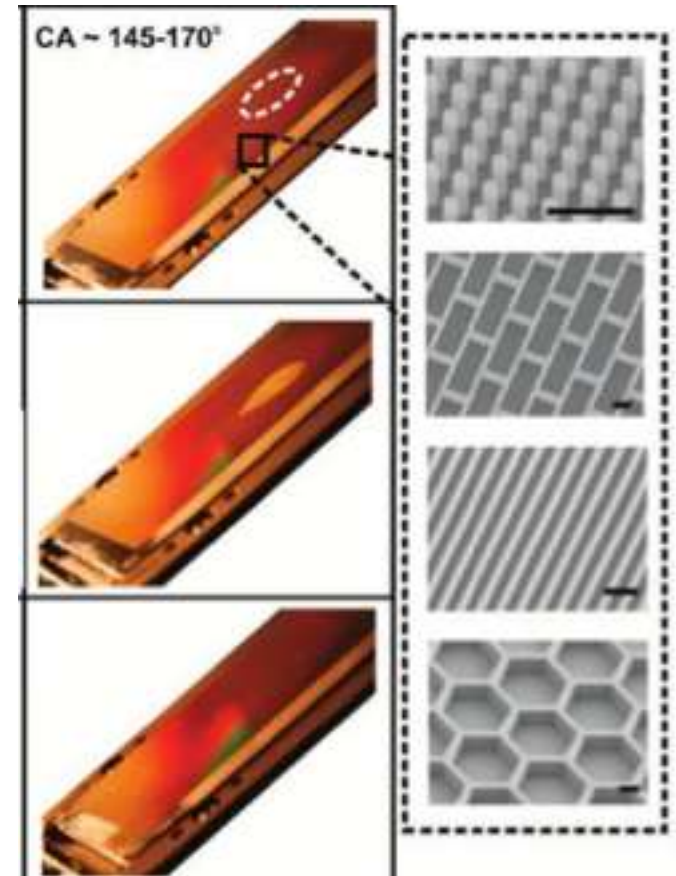
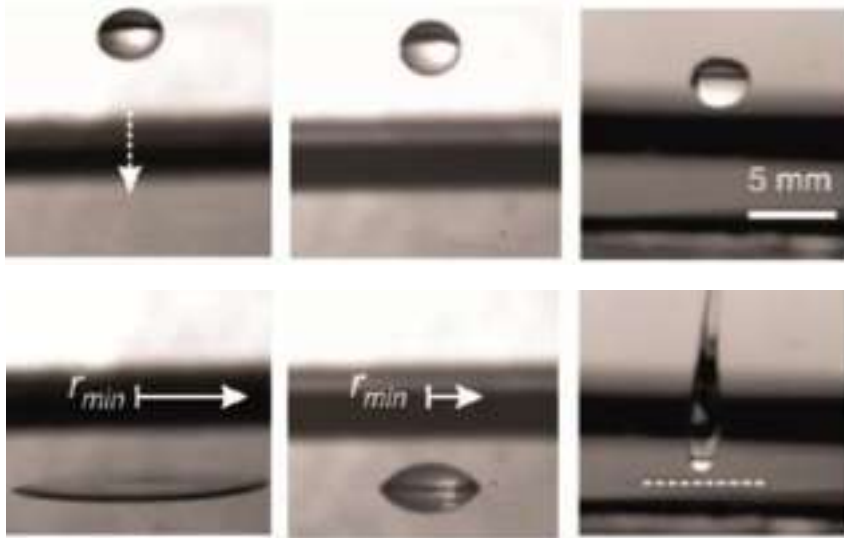
# Current Technology

- Medicine



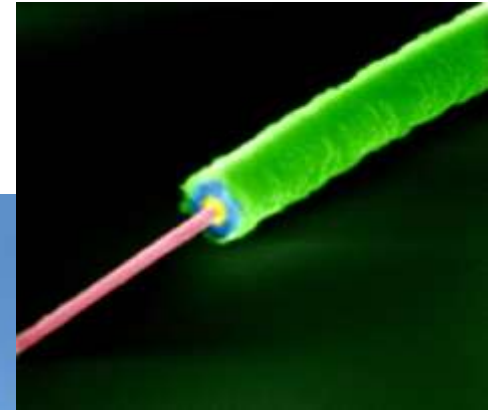
# Current Technology

- Materials



# Current Technology

- Solar Energy



# Current Technology

- 'Magic' money ...



# 'Magic' Money

- To understand how it works, we need to learn about:



Chemical equations

Combustion

Vapor pressure

Boiling points

Hydrophilicity

Enthalpy

In a word ...

... CHEMISTRY!

# Summary

- In Chemistry, we will learn about the composition of matter and how it interacts with other matter and with non-matter

## Homework (Due 9/15)

- Read Ch. 1, pp. 1 - 10
- Describe one matter-matter you need to survive
- Describe one matter-non-matter interaction you need to survive
- Quiz (9/20): Elements and Metric Prefixes