KU Chem. Club
Last Fall Meeting: 12/06/12

Roderick Black: Faculty Advisor
Carl Appelman: President
Sonny Tallavajhala: Vice-President
Lianna Dang: Secretary
Sid Schrahl: Co-Fundraiser
Carley Trentman: Co-Fundraiser
Hannah Ceule: Treasurer

Like us on Facebook!

Carnival of Chemistry
Thanks for all of your help!!!

Upcoming Events

- Demonstration at Cordley Elementary School
  - Friday Dec. 6th
- 2013 Engineering Expo!
  - February 21-23rd

What is Expo?

- Get elementary thru high school students interested in engineering
- History of Chem. Club involvement
  - Demo show in small lecture hall
  - Liquid nitrogen ice cream
  - Working with AIChE (chemical engineers) with a joint room
This Year

• Theme: Silver Surfer
• Spahr Library café
• Homemade Root Beer
• Liquid Nitrogen Ice Cream
• Related hands-on exhibits
• Send ideas to chemclub@ku.edu

What to do… RIGHT NOW!

• Look at your calendar (Feb 20-23)
  • Wednesday 5:30pm to finish
  • setup & decorating area
  • Thursday, Friday, Saturday (8:30am-3:30pm)
  • Interact with students
  • Thursday – Middle Schools
  • Friday – Elementary & High Schools
  • Saturday 9-noon – Lawrence community
• Free (cool) t-shirts are involved!
• Exhibits related to root beer & ice cream
• Spread the word to your hometown schools

MRI GLOBAL

• Not-for-Profit Organization

• Preforming Contract Research in the Following Areas:
  • Agriculture & Food Safety
  • Life Sciences
  • National Security
  • Transportation
  • Environment
  • Energy

Tour Guide: Dr. Dan Kuchynka
More info: http://www.mrglobal.org

First Day of Classes

January 2013
Chem Club Avenger Shirt:

Front:

- Liquid Nitrogen:
  - -321°F Fahrenheit
  - -196°C Celsius
- Water in the air freezes, causing Smokiness

Back:

- Frozen CO₂
  - -109°F Fahrenheit
  - -78°C Celsius
- Sublimes!
  - Solid → Gas
- Gaseous CO₂ makes up 0.035% of normal air
  - 1.5x Denser than air

Steam Powered!

- 100mL of 30% H₂O₂
- 0.5g MnO₂ (stains hands)
- H₂O₂ decomposes to H₂O and O₂!

Redox Flames

- 400mL of H₂O
- 50mL of HCl
- 2 Scoops Copper(II) Chloride
- Aluminum Strips
- H₂ evolves from solution

Shake It Up!

Ingredients

- 10 mL methanol
- Large water jug

Directions

- Pour in the methanol
- Cork tightly (rubber stopper)
- Let the audience help you shake it up (disperses methanol, evaporates)
- Use a bendy lighter to ignite methanol vapors
When Do We Monitor pH?
Swimming Pools
- Low pH corrodes metal and erodes plastic
- High pH causes scaling and cloudy water

What does pH affect?
- The Environment
  - A pH above ~9 or below ~4 is harmful to most aquatic life
  - A pH under 5.5 can eat away the enamel on our teeth!

Meeting Recap:
- Order your Chem. Club T-Shirt
- Email chemclub@ku.edu with Engineering Expo Ideas
- Study Hard for Finals!!!