



KU Chem. Club

Last Fall Meeting: 12/05/12

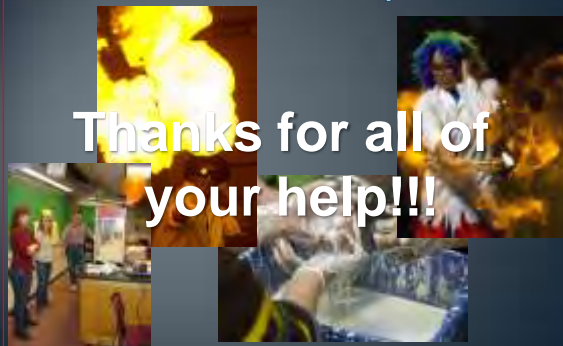
Roderick Black: Faculty Advisor

Carl Appelman: President
 Sonny Tallavajhala: Vice-President
 Lianna Dang: Secretary
 Sid Schrah: Co-Fundraiser
 Carley Trentman: Co-Fundraiser
 Hannah Ceule: Treasurer



 Like us on
Facebook!

Carnival of Chemistry



Thanks for all of your help!!!

Upcoming Events



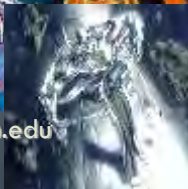
- Demonstration at Cordley Elementary School
 - Friday Dec. 6th
- 2013 Engineering Expo!
 - February 21-23rd

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

• Performing 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.mriglobal.org>



Chem. Club Avenger Shirt:

Front:



Back:



- Frozen CO_2
- -109° Fahrenheit
- -78° Celsius
- Sublimes!
 - Solid \rightarrow Gas
- Gaseous CO_2 makes up 0.035% of normal air
 - 1.5x Denser than air!

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



Steam Powered!

- 100mL of 30% H_2O_2
- 0.5g MnO_2 (stains hands)



- H_2O_2 decomposes to H_2O and O_2 !

Redox Flames

- 400mL of H_2O
- 50mL of HCl
- 2 Scoops Copper(II) Chloride
- Aluminum Strips



- H_2 evolves from solution

Shake It Up!

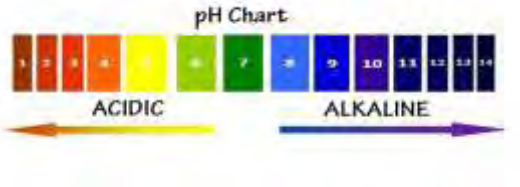
Ingredients

- 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

pH Chart



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

Us!

- 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!!!