In Conjunction with the American Chemical Society
Student Affiliates at the University of Pittsburgh

CHEM MAJOR NEWS

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THE WELCOME BACK EDITION

Welcome back to another exciting year at the University of Pittsburgh!

I hope that everyone had an excellent summer. If yours was anything like mine, it passed too quickly. However, I hope you are well rested and ready to tackle the upcoming semester. To the freshmen, we wish to see you involved soon in the fun, informative activities American Chemical Society has to offer.

I am pleased to introduce this year's core newsletter staff. My name is Katie Hammer and I am returning for a second year as editor of the ACS newsletter. Devin Potts serves as co-editor. The two of us will write the feature articles for the month and select a puzzle for your enjoyment. Lance Mabus will draw our comics this year.

We also look forward to new faces joining us each Friday at noon for our ACS meetings in Chevron room 132! Joining the club is a great way to make new friends, hear from professionals working in chemistry fields, enjoy food together, and have some fun! ACS also provides its members the chance to volunteer with fellow chemistry students, make a difference for young students in our area, and network with past Pitt alumni.

On another note, Devin and I need your help to diversify the newsletter and make it interesting for you to read. Any suggestions for article topics or willingness to submit articles would be greatly appreciated. Such ideas can include sharing details about an amazing chemistry internship or an experience you had during your summer travels. You can e-mail me at klh29@pitt.edu or contact Devin at dep24@pitt.edu or, of course, talk to George in the office.

I leave you with the wise words of Abraham Lincoln to consider as you start the year: "Always bear in mind that your own resolution to succeed is more important than any one thing."

We wish everyone the best year possible in all of their academic pursuits and hope to see you Fridays at noon for ACS meetings!

Katie L. Hammer

2007-2008 ACS-SA Officers and Staff

Nora Jameson-*Co-President*
Max Osipov-*Co-President*
Brandon Mills-*Co-Vice-President*
Lauren Smith-*Co-Vice-President*
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Katie Hammer-*Newsletter Editor*
Devin Potts-*Newsletter Editor*
Lance Mabus-*Comics*
Leah Fow-*Senior Affairs*
Jeff McCullough-*Senior Affairs*

What Do Those Symbols Really Stand For?

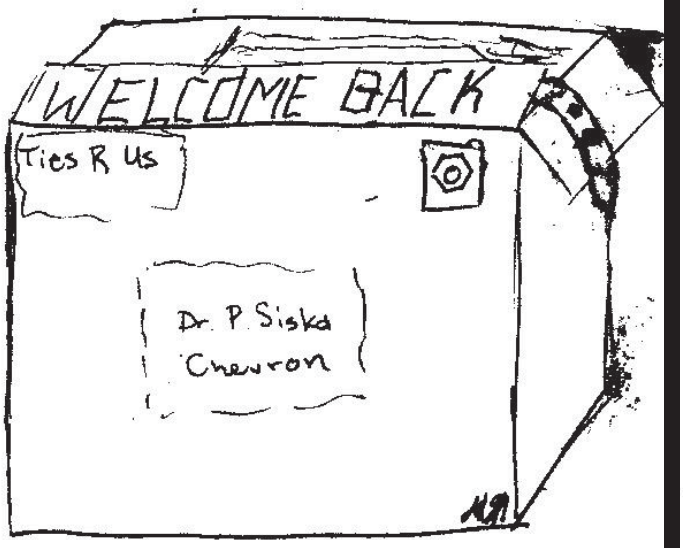
After a long and relaxing summer, we at the Chem Major News thought many of you could use a mental challenge to get yourself in shape for the upcoming term. Using our old friend the periodic table, supply the appropriate element for each of the statements below. The first one is done for you.

1. Police Officer.--**Copper (Cu)**
2. Lone Ranger's horse.
3. If they are not here, they _____.
4. To press a blouse.
5. Motto for an oil well-drilling company.
6. What should you do with dead people's bodies?
7. A fixture in your house with a faucet and a drain.
8. Wholenium x 0.5.
9. A ridiculous prisoner.
10. A burial that weighs 2,000 pounds.
11. Guided or directed.
12. Grab the guy!
13. What do you do before you brand a steer?
14. A popular red or pink flower found in pots.
15. A Latin Mickey Mouse's dog.
16. Someone who helps people in distress is good _____.
17. After successfully riding a bronco, a rancher shouts "I _____.
18. What to do if you are a big, dark cloud?
19. Speaking of beautiful mountains, you might say, "They _____.
20. Funds from your mother's sister.
21. Opposite of hot.
22. A person from Norway, Sweden, or Finland.

ATTENTION!!!

The ACS-SA will be selling hoagies every Tuesday at lunchtime in the lobby of Chevron Science Center. This year they will be from Uncle Sam's! Details to follow soon....

COMEDY CORNER



A new box of ties for Dr. Siska is a sure fire way to tell Pitt is back in session!

Movie Magic... A Kick in the Face

by: Devin Potts, Co-Editor

As the summer block buster season winds down, students slowly trickle back to Pitt, undoubtedly gossiping about their favorite movies and the special effects. Amidst any conversation CGI reigns king: Computers generate Harry Potter's spells and Spiderman's web, but fantasy and technology push the limits of theatrical substance. Perhaps there is something more tangible and human when Jason Bourne kicks down doors, kicks over bookshelves, and just generally kicks people in the face.

Within all the computerized special effects, a sense of practically can be lost. Yet not all movies center on computers as some big screen effects rely on simple chemistry. And no, I don't mean that tacky, contrived relationship chemistry every single romance-comedy strives after; I'm talking about the booms, the bangs, and the blasts. I'm talking first semester 0110 GenChem learning about bonds, atoms, and balancing reactions chemistry. The explosions, the gun shots, the smoke, and the fire all require chemistry knowledge while taking the lead role in numerous movies.

First and foremost, may I introduce to you the explosion, a classic example of attention grabbing, emotion squeezing, easy to make action. Tom Cruise would certainly be insulted if his "Mission Impossible" lacked a single credible explosion. The affect of an explosion lies not only with the impressive sound and light, but more importantly in the guttural fear people easily envision. Although the extent and type of explosion vary from film to film, the desired result is an intense, spontaneous combustion. The basic formula involves a hydrocarbon fuel source and oxygen which, upon exploding, produce vaporized water and carbon dioxide. Even the greatest explosions in movie history can be simplified into one balanced formula involving these four components. The advancement of chemistry and special effects blossoms even on YouTube. Several different videos explain how to make simple explosions at home using calcium carbide and water. Don't worry, even these home videos share the safety conscious views of wearing those stylish safety goggles.

In the movie Ladder 49, producers tried creating computer generated fires but decided that an actual fire would be more realistic. On the set, propane (C_3H_8) was burned to create a flame, and other chemicals were used to create soot and change the color. Such chemicals used to control the color are strontium and lithium salts for red, barium compounds for green, and copper compounds for blue. Of course, behind every good fire is the ominous smoke. The sublimation of dry ice (frozen CO_2) and evaporation of liquid nitrogen (N_2) were commonly used in the past, but the safety and versatility of atomized glycols make them the desired smoke source. The versatile glycol, glycerin, and water solution can be manipulated to create an eerie fog to a thick smoke.

Within the realm of fantasy in movies these days, there is something exquisitely real about the application of chemistry for special effects. Chemistry is the science of the composition and properties of matter including their dynamic interactions, so why can't that magic be captured on film? So next time you are contemplating sleeping through that Monday morning General Chemistry class, envision yourself as the special effects director on the set of the next Bond movie. After all, you are most likely on some exotic beach, getting paid to just balance some equations.

Tentative ACS Fall Schedule

September	**07**	Welcome to the New Academic Year with Pizza
	14	Career Services and You *with Erin Bridgen, Science Career Counselor*
	21	Pre-Professional Discussion Panel-*Meet Recent Pitt Grads Who Are Currently Studying in Professional Programs.*
	28	All About Graduate Studies *with Profesor Steve Weber, Director of Graduate Studies*
October	**05**	The Many Faces of Chemistry-Preparing for National Chemistry Week 2007 *with Nathan and Chris*
	12	Pharmaceutical Chemistry at Merck *with Mr. Chris Napolitano, BS Chemistry from Pitt*
	19	Pumpkin Painting and Halloween Extravaganza
	26	Meet the New Faculty *A Research Talk with Professor Mike Trakselis*
November	**02**	Green Chemistry-What It Is All About *with Dr. Larry Friedman*
	09	Towne Meeting
	16	Fall 2007 Awards Ceremony *Come Celebrate Academic Excellence with Us!*
	23	Happy Thanksgiving--No Meeting
	30	Preparing for Saturday Science *with Nathan and Chris*
December	**07**	You Deserve a Study Break--Join us for Lunch!!!