

## Davis, Linda S

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**From:** Davis, Linda S  
**Sent:** Tuesday, October 14, 2008 4:48 PM  
**To:** 'chme@ecn.purdue.edu'; 'chmegrad@ecn.purdue.edu'  
**Cc:** 'Gauger, Steve A'  
**Subject:** Safety Update #6: Cell Phone Safety  
**Attachments:** Cell Phone inside Car.pdf

ChE Faculty, Staff and Graduate Students,

Please take a minute to review the attached and think twice about leaving a cell phone in your car.

Thank you.

Linda

*Linda S. Davis*

Industrial Education Director  
School of Chemical Engineering  
Purdue University  
480 Stadium Mall Dr.  
West Lafayette, IN 47907-2100  
Phone: (765)496-1710  
[lsdavis@purdue.edu](mailto:lsdavis@purdue.edu)



## Cell Phone Exploded Inside Car

### BEWARE!

### MOBILE PHONE COULD EXPLODE UNDER EXTREME HOT ENVIRONMENT!

#### SOME LESSONS ARE BEST LEARNED BY EXPERIENCE!

An incident of a mobile phone explosion inside a vehicle cabin was reported in Saudi Arabia lately.

#### Incident Background

Mobile phone units were left inside the car compartment while the vehicle was parked in an open area. One of the phones had its power "on". It was close to midday. Reportedly after an hour in the park, one of the mobile phones exploded.

#### What Went Wrong?

Obviously the mobile phone's battery is the only component as the legitimate source of stored energy.

The solar heat obviously pressurized the car's closed cabin. What triggers the explosion could be the overheated battery caused by extremely high temperature magnified by the windshield (glass) and the sealed (unventilated) vehicle cabin.

#### Lessons Learned

Better not to leave mobile phones in car compartment especially when the vehicle is exposed to direct sunlight for a prolonged period.



Figure 1&2: Shattered car windshield as a result of the explosion





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Figure 3: Effects of the explosion



Figure 2: Remains of phone gadget



Figure 5: Evidence of rupture and heavy melting due to intense temperature as a consequence of the explosion



Figure 6: Car compartment damages and mobile phone units were destroyed beyond repair.

Picture Courtesy of: A PSSE Member In KSA