# SAFETY BULLETIN

King Abdullah University of Science and Technology
جامعة الملك عبدالله للعلوم والتقنية

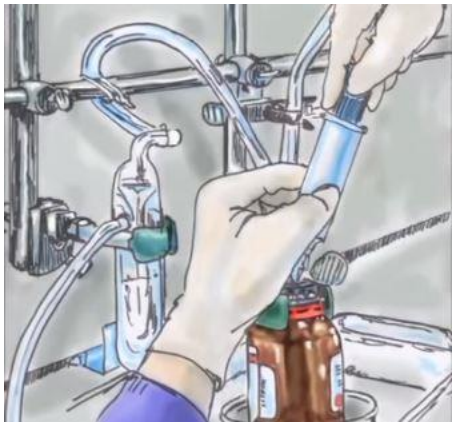
## SOPs are required *before* work with Pyrophoric Substances commences

**Purpose of the safety bulletin:** To help the research community avoid serious injury or death due to unsafe experiments , with the potential for explosions, fires, research and financial loss due to destruction of experimental data, facilities and costs of equipment repair or replacement.

A recent incident at KAUST with some similarity to the Sheri Sangji tragedy (UCLA, 2008) was shown to have the following root causes:

1. The required SOP for this experiment (involving a pyrophoric and water reactive reagent) had ***not*** been created
2. The experimenter was using Tert-Butyllithium as a substitute for the recommended chemical
3. The experimenter was using a ***plastic syringe*** as a substitute for a glass syringe

Once filled with Tert-Butyllithium, the syringe jammed, creating a potential fire hazard.



*In the case of Sheri Sangji, the syringe came apart, and the contents burst into flames, severely burning Sheri and causing her death, two weeks later:*

Fortunately this did ***not*** occur in the KAUST incident.

**Requirement:** **All labs must immediately cease all experiments involving pyrophoric substances until they have first created, reviewed and received P.I. approval of an appropriate SOP for each experiment.**
**This is in accordance with the lab safety manual, Chapter 9 – Spontaneously Combustible and Chapter 3 – Standard Operating Procedures, the bulletin for Reactive Materials, and the bulletin for Potentially Explosive Reactions, and also the training on Blackboard – HSE 104: Working with Reactive Chemicals.**

*Please submit any questions to researchsafety@kaust.edu.sa*

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