Safety Moment: Potassium graphite

K + graphite → KC₈

- reduced graphene layers,
 with intercalated K⁺ ions
- higher surface area than solid K
- rapid reducing agent
- reduces naphthalene and biphenyl
- Rb, Cs analogues exist
- extremely pyrophoric!
- quenching can be hazardous





photo credit: Sean McWilliams Wietz, Rabinovitz, *J. Chem. Soc.*, *Perkin Trans.* **1993**, 117. Evans, Lee, Lie, Ziller, *Angew. Chem., Int. Ed.* **2004**, *43*, 5517. Roesky, *Inorg. Chem.* **2001**, *40*, 6855.

Safety Moment: Potassium graphite

K + graphite → KC₈

Quenching à la Roesky

- flower pot loaded with dry sand
- pyrophoric solid buried in sand
- place water *outside* of flower pot
- wait one week, replenishing water
- safe, complete consumption!







photo credit: Sean McWilliams Wietz, Rabinovitz, *J. Chem. Soc.*, *Perkin Trans.* **1993**, 117. Evans, Lee, Lie, Ziller, *Angew. Chem., Int. Ed.* **2004**, *43*, 5517. Roesky, *Inorg. Chem.* **2001**, *40*, 6855.