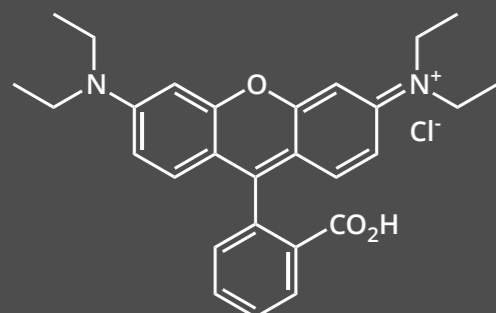


THE CHEMISTRY OF GLOW STICK COLOURS

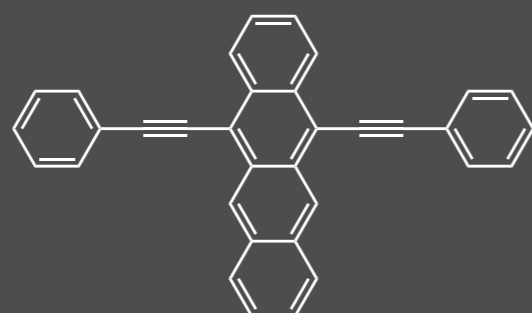


Red



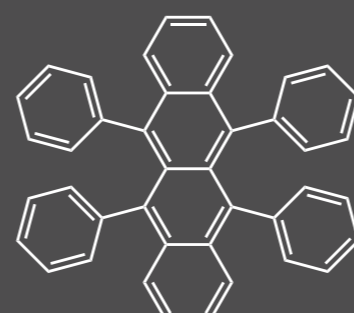
RHODAMINE B

Orange



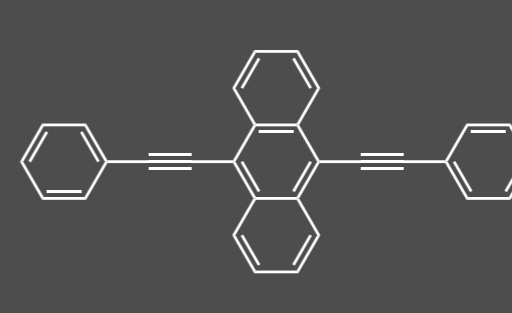
5,12-BIS(PHENYLETHYNYL)NAPHTHACENE

Yellow



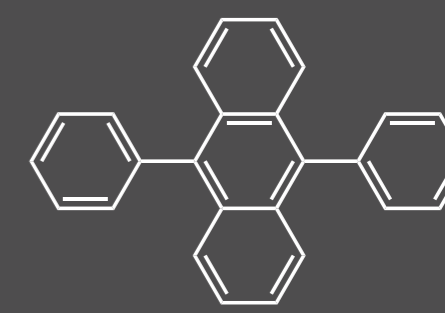
RUBRENE

Green

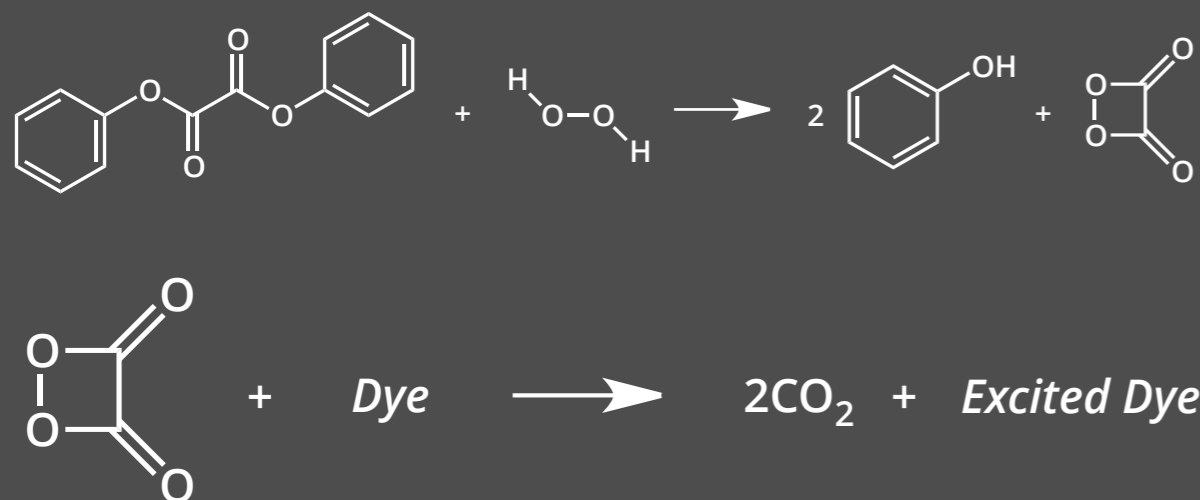


9,10-BIS(PHENYLETHYNYL)ANTHRACENE

Blue



9,10-DIPHENYLANTHRACENE



How do glow sticks produce light?

When glow sticks are bent, the inner glass tube is broken, releasing hydrogen peroxide solution. This then reacts with a diphenyl oxalate, producing 1,2-dioxetanedione; this product is unstable, & decomposes to carbon dioxide, releasing energy. The energy is absorbed by electrons in dye molecules, which subsequently fall back to their ground state, losing excess energy in the form of light.

