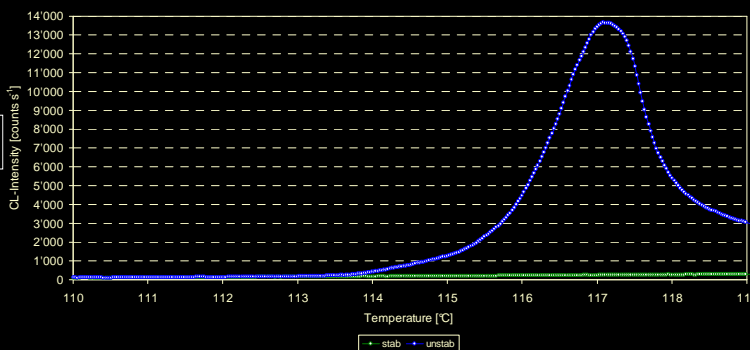
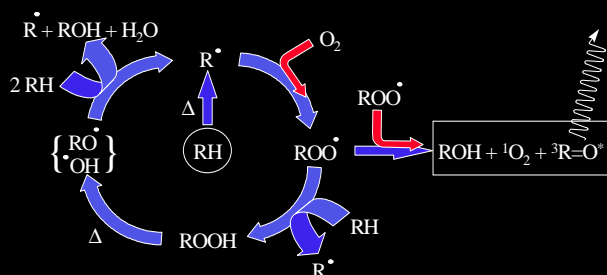


Development of Chemiluminescence-Prototype

Fabian Käser

Berne University of the Art **BUA** – Conservation and Restoration

cis-1,4-Polyisoprene unstab vs. stab Irganox 565 @ 30-120°C
(heating rate = 0.0132 K min⁻¹, O₂)
CL-Intensity (Darkcount subtracted)



aus Lacey/Dudler, *Polym. Degrad. Stab.*, 51 (1996), 101.

„... Chemiluminescence which has developed as the most sensitive method for detection of oxidation ...“

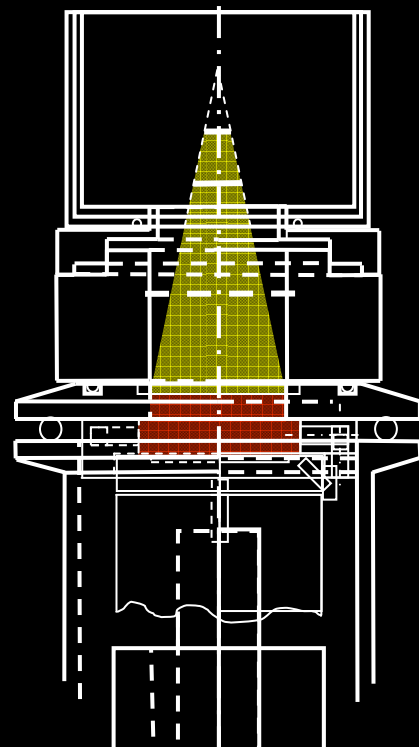
Popířil, J. et al., *Polymer Degradation and Stability.*, 82 (2003), 155.

Goals:

1. Acquisition of solid state oxidation kinetics @ moderate experimental conditions (T, t, rH%)
2. Model free kinetic analysis
3. Precise lifetime prediction under given conditions

Typical Applications:

- ✓ Conservation Science
- ✓ Food Science
- ✓ Pharmaceutics and Cosmetics
- ✓ Plastics, Adhesives, Paints and Coatings
- ✓ Petrochemistry



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