



Ultraviolet Light

Ultraviolet (UV) light radiation is just outside of the visible range, or under 400 nanometers (nm). There are three ranges of UV as seen in the table below.

Band	Wavelength	Primary Visual Hazard	Other Visual Hazard	Other Hazards
UV-A	315-400nm	cataracts of lens		skin cancer, retinal burns
UV-B	280-315nm	corneal injuries	cataracts of lens, photokeratitis	erythema, skin cancer
UV-C	100-280nm	corneal injuries	photokeratitis	erythema, skin cancer



Common Sources

- UV Crosslinker
- Germicidal Lamps
- Biosafety Cabinets
- Florescence Detector
- UV Light Box/ Transilluminator
- Spectrometer
- Spectrophotometer
- UV Gel Dock
- UV Microscopes



Health Risks

Overexposure to UV radiation often times has no immediate warning signs. Overexposure symptoms to the skin (erythema) and eye (photokeratitis) typically appear 4-24 hours after an exposure.

Skin– UV radiation can cause erythema (skin redness).

The neck and wrists are commonly left unprotected

Eye– UV radiation can damage the cornea or cause retinal burns.

Photokeratitis is a painful inflammation (sand like feeling) of the eye.

Safety

Locate UV equipment in separate room, alcove, or low traffic area. To help avoid exposure to other lab workers, the use of shields, curtains, UVR absorbing glass or plastic is recommended.



PPE– Eyeglasses, face shield, gloves, and lab coat or full length sleeves

Warning Signs– Be familiar with warning signs and labels on equipment/rooms

Contact Radiation Safety Office for signage: radsafety@uchicago.edu