

## PROCESSING PROCEDURES FOR HOLOTEST EMULSION

### GENERAL INFORMATION:

All holograms can be made on 8E75 HD emulsion for red lasers and 8E56 HD emulsion for green lasers. If film is used, sandwich it between plate glass and squeeze out the air by pressing the plates with a weighty object, and then clamp the plates together. This is crucial!

If holograms are made in front of an audience as a lecture/demonstration, all wash times can be cut down to ten seconds. Shine a green safelight on a projection screen for room light.

### PROCESSING PROCEDURES

Chemicals are available in photographic stores.

Expose the emulsion so that after development (but before bleaching) the hologram has a density of 3, i.e., dark but not opaque.

Handle the emulsions under dim and indirect safe-light, green light for 8E75 and red light for 8E56 series.

#### White Light Reflection Holograms:

1. Develop in Kodak D-8 for 1 minute
2. Wash - 5 minutes.
3. Bleach until transparent - 2 minutes.
4. Wash - 10 minutes.
5. Squeegee with photographic squeegee on clean glass plate and dry with warm air.

Bleach solution: In one liter of water, mix 2 gm potassium dichromate, 30 gm potassium bromide, and 2 cc concentrated sulfuric acid.

#### Transmission Holograms:

1. Develop in Kodak D-8 for 1 minute.
2. Stop bath (Kodak) - 20 seconds.
3. Kodak rapid fix (without hardener) - 2 minutes.
4. Wash - 5 minutes.
5. Bleach until clear
6. Wash - 10 minutes.
7. Squeegee dry

Bleaching solution: In one liter of water, mix 150 gm ferric nitrate and 33 gm potassium bromide.