

Scrape the set emulsion onto a square of cheesecloth. Fold the cheesecloth around the emulsion. Hold the emulsion ball under cold water in a pan, and twist the ball to force the emulsion through the cloth. This produces emulsion "noodles," or shreds; the cold water helps to keep the shreds separated. Pour off the water. Onto the shreds, pour approximately 3 quarts (3 liters) of cold water, leave it for 2 1/2 minutes, pour off 2 quarts (2 liters), and add 2 quarts (2 liters) more. Repeat this process 5 times to wash out the excess potassium bromide, potassium iodide, and potassium nitrate. Heat the emulsion for 15 minutes at 130 F (55 C) for further ripening; then slowly cool it to 104 F (40 C).

Pour 1 dram (4 ml) of the emulsion onto a clean 3 1/2 by 4 1/2-inch glass plate, spread it to form a uniform coat, and place the plate on a level chilled metal plate until the emulsion sets and is dry. The photographic plate is now ready for you to use.

Outdoors in bright sunlight, an exposure of about 1/25 second at *f*/8 will be approximately correct. For development, use any of the active, fast-working film developers, such as *KODAK Developer D-8*, diluted 2:1, *KODAK HC-110 Developer* (Dilution A), or *KODAK DEKTOL Developer*, diluted 1:1. Follow the developing instructions packaged with the developer.

REFERENCES FOR ADDITIONAL INFORMATION

If you are interested in learning more about making a photographic emulsion, you may want to consult the following books:

The Focal Encyclopedia of Photography, London, Focal Press, 1965. "Emulsion," pp. 506-508.

Hornsby, H. M., *Basic Photographic Chemistry*, London, Taylor, Garnett, Evans, Watford, 1958. Chapter 2—"The Emulsion," pp. 23-30.

James, T. H. and Higgins, G. C., *Fundamentals of Photographic Theory*, New York, Morgan & Morgan, Inc., 1960. Chapter 2—"The Photographic Emulsion," pp. 16-41.

O'Hara, C. E. and Osterburg, J. W., *Practical Photographic Chemistry*, Minneapolis, American Photographic Publishing Co., 1951. Chapter 2—"Emulsions," pp. 12-25.

Spencer, D. A., *Photography Today*, 2nd ed., London, Oxford University Press, 1955. pp. 45-46.

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