

TABLE 2. REPEATED MILLIPORE FILTRATION OF ^{99m}Tc -ANTIMONY SULFIDE

Filtration (No)	Percent remaining on filter
1	9
2	4
3	6

2. A control with $^{99m}\text{TcO}_4^-$ gave only 0.9% on the filter.

The filtration showed that about the same amount was attached to the filters after each filtration. The filters had nearly the same color on each side. The solution was clear before and after each filtration. The explanation may be a precipitation in the filters because of the vigorous mechanical influence of the filter. We must not forget that all lyophobic colloids are more or less stabilized suspensions of insoluble compounds with a particle size between coarse suspensions (≈ 1 micron) and true molecular solutions.

As a final conclusion from the previously mentioned and earlier investigations (13) I would like to emphasize from a chemico-physical point of view that antimony sulfide colloid is of a better colloidal quality than the sulfur colloid.

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SIMPLE CONSTRUCTION OF A LEAD-BAR PATTERN

A check with a bar test pattern can provide considerable information about the performance of a scintillation camera (1). The bar pattern recommended by Powell is not available commercially but can be made easily and at relatively little cost. Strips of Masonite ($\frac{1}{4} \times \frac{1}{4} \times 12$ in.) were cut with a band saw and glued $\frac{1}{4}$ in. apart on a slab of Masonite ($12 \times 12 \times \frac{1}{4}$ in.). The $\frac{1}{4}$ -in. voids were filled with lead shot (1/32 in. diam) which are commonly used for mantles in radiation therapy. To avoid spilling of the lead shot, the top of the bar pattern was covered with clear adhesive tape. X-ray films were taken to assure that the bar pattern was as planned. Figure 1 shows a typical scintiphoto taken with the bar test pattern.

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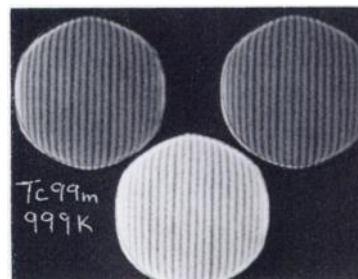


FIG. 1. Scintiphoto taken with bar test pattern. Bar pattern was placed on inverted crystal and irradiated from above with point source of ^{99m}Tc approximately 1.5 meters away. No collimation was used. Searle Radiographics Pho/Gamma IV was used to obtain total count of 999K.

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