

Copy of a diagram referenced as "Disposition of two layers of nuclear membrane in two kinds of shadowing"

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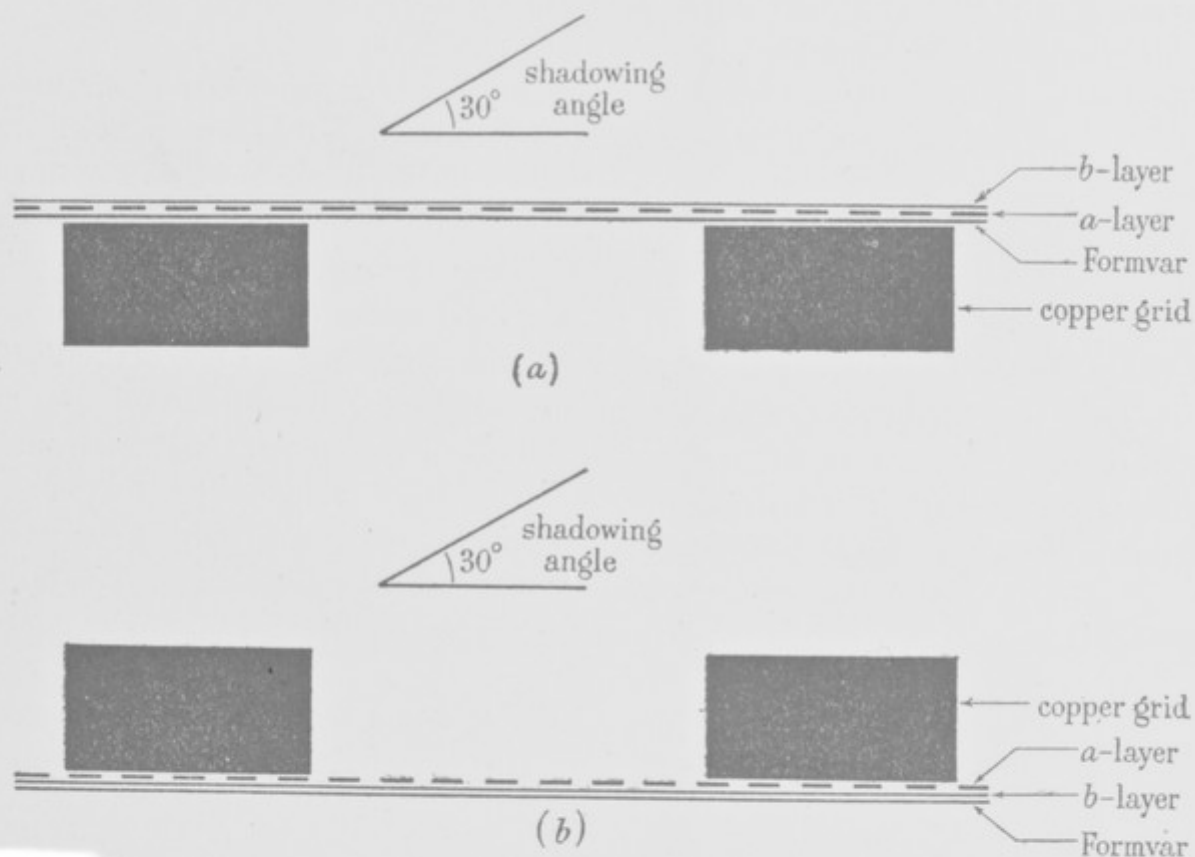
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palladium (Williams & Wyckoff 1944). If the *a*-layer lies free at the surface exposed to shadowing, then the pore rims should cast shadows over the pores themselves. However, this was not the condition which we observed in the photographs. The effect of shadowing was merely to decrease still further the photographic contrast, though odd fragments of debris lying on the upper surface threw shadows in the normal way. This negative result indicates that the *a*-layer is not lying exposed at the surface; it is covered by the uniform *b*-layer (see figure 6*a*). This means that in the case of the intact nucleus the *a*-layer lies outside, the *b*-layer inside.



The disposition of the two layers of the nuclear membrane in relation to the angle of incidence of palladium particles in two kinds of shadowing arrangement. (a) The membrane lying with the *a*-layer in contact with Formvar, the Formvar being supported on a copper grid. Being overlaid with the *b*-layer, the rims of the pores of the *a*-layer cast no shadows. (b) The membrane lying with the *a*-layer attached to a copper grid, the *b*-layer being backed by Formvar. Where the *a*-layer is not itself in the shadows of the grid, the rims of its pores cast shadows.

Proof positive of the topographical relationship was also established. *Xenopus* nuclei were isolated in distilled water and mounted direct on copper grids by means