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Fine Grain Photographic Development

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lattice. Measurements have been made of the dependence of the electrical resistance on temperature as indicative of the "degree of order" in the lattice.

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FINE GRAIN PHOTOGRAPHIC DEVELOPMENT

GEORGE C. HIGGINS

The effect of different fine grain photographic developers upon the effective emulsion speed and graininess of photographic materials was studied quantitatively. Fine grain developers were found to be more effective in reducing the graininess of fast coarse grain emulsions than of slow fine grain emulsions. The effective emulsion speed of slow fine grain emulsions when developed in a MQ Borax developer was found to be at least equal to that of a fast coarse grain emulsion when developed in an ultra fine grain developer which gave negatives of as low graininess on the fast emulsion as the MQ Borax gave on the slow emulsion. Slight improvement in graininess can be obtained by using ultra fine grain developers on fine grain emulsions, but only at some sacrifice of effective emulsion speed.

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HYGROSCOPICITY AS A FACTOR IN THE THERMAL CONDUCTIVITY OF LOOSE-FILL INSULATORS

H. STILES AND H. E. RUFF

There has been constructed a thermal conductivity apparatus of the guarded hot plate type employing a compensatory heating unit and designed to test samples having low values of thermal conductivity. Tests on various types of loose-fill thermal insulators reveal that there is a linear increase of thermal conductivity with increased moisture content. Depending upon the particular