

NOTES AND NEWS

A MOUNTING MEDIUM OF 1.66 INDEX OF REFRACTION

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The writer wishes to call attention to the use of a synthetic resin having an index of refraction of about 1.66 which is suitable as a mounting medium for thin sections and mineral powders.

The index of refraction being moderately high makes the material more desirable than Canada balsam for mounting the heavy minerals of sandstones. Those minerals usually have high indices of refraction and show excessively high relief in balsam but are more nearly matched in the resin described.

A particularly advantageous use of this medium is in mounting high alumina refractory materials which contain in the fired state both mullite and corundum. Corundum has indices of refraction of about 1.760, considerably above that of the resin, whereas mullite just about matches or is below the resin in index. It is obvious that differentiation between the two, and quantitative estimation of the amounts of each is greatly facilitated by the slide or powder being mounted in a medium having an index of the value given, 1.66. Dispersion is not high.

The resin is clear in thin section but light honey yellow in a larger quantity. It is solid, or rather a very viscous liquid, about like pitch, at ordinary temperature. It becomes sensibly fluid, "melts," at about 70°C. without bubbling and does not darken with heating. No objectionable odor is connected with the material. It is soluble in xylol which is used to clean the finished slides. The resin is strong, not particularly brittle, and has not shown granulation nor deterioration after a half year's use in the laboratory. That time is too brief, of course, to judge its durability, but it has proven satisfactory so far.

The writer was advised of the availability and utility of this material by Mr. R. S. Bradley of the A. P. Green Firebrick Co., who in turn learned of it from Mr. Kraner of the Corhart Refractories Co.

The resin is sold by the Swann Chemical Co., Anniston, Alabama, under the name *Aroclor No. 4456*, and lists at \$0.40 per pound, a price that is not excessive for mounting media.