Anniston, Alabama

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Messrs.
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Anniston — Arocolor Resistivity

We have obtained three standard resistors to be used in checking our General Radio Megohm Bridge used in determining resistivity of Arocolor. These resistors furnished by The Victorun Instrument Company, Cleveland, Ohio, have a stated accuracy of 1%. These resistors are non-inductive, vacuum sealed in glass, and are treated to be unaffected by 100% humidity.

Three resistors were obtained, 106, 522, and 530 megohm; by series and parallel resistor corrections 5 check points were obtained in the same range as our Arocolor 1254 bridge readings.

Results after adjustment for voltage coefficient for Victorun resistors.

Resistor	1	2	3	2 & 3 ppl	2 & 3 series.
Standard-adjusted	98 X 10^6	454 X 10^6	461 X 10^6	228 X 10^6	915 X 10^6
G. R. Bridge	95 X 10^6	425 X 10^6	460 X 10^6	220 X 10^6	950 X 10^6
% Difference	+ 3%	- 6%	check	- 3%	+ 4%

These results indicate that the bridge is accurate to its stated accuracy in this range ± 6%.

Other positions of the multiplier switch indicate that the bridge is accurate to its stated accuracy in its entire range.

As these results indicate that our bridge itself is correct, I do not feel that it is necessary to obtain other checks for our purposes. However, if we are going to send these resistors to G.E. to check their resistivity, an additional calibration of these standard resistors by an independent company may be in order. I believe that I can arrange this with General Radio Company free of charge.

As these resistors in this range have been on the market only a very short time, it is possible that Plant "B" and Springfield might be interested in obtaining several for standards. Their cost is less than $5. each.

Thanks,

L. C. Garrett

DSW 330595

LCG:rs

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