

TABLE III

Katharometer Results

Lab. No.	Sample Mark	Permeabilities		Temp. °C.	Ratio
		Hydrogen	Helium		
VII	A	10.0	7.1	15.5	0.71
II	A	9.2	7.6	15.9	0.83
	B	9.5	7.6	15.5	0.81
III	A	8.6	5.6	15.5	0.65
	B	7.4	4.9	15.5	0.66
VI	A	8.1	6.1	15.9	0.75
	B	7.3	4.9	15.5	0.68
V	A	6.0	4.8	14.5	0.80
	B	6.4	4.8	15.5	0.74
IV	A	4.7	3.2	14.6	0.69
	B	5.2	3.4	15.5	0.65
VIII	A	2.4	2.5	Mean	0.72
	B	2.5	2.4	15.5	1.02
IX	A	0.13	0.17	15.5	0.97
				15.5	1.27

SUMMARY

1. Tests have been carried out on the permeability to hydrogen and to helium of typical samples of fabrics.

2. With rubbered fabrics the permeability to helium has been found to be less than to hydrogen, the ratio of the helium to hydrogen permeability being (i) 0.66 by Interferometer method, (ii) 0.72 by Katharometer method.

3. With skin-lined fabrics the ratio of helium to hydrogen permeability was found to be about unity.

This investigation was carried out at the Admiralty Physical Laboratory under the direction of Professor J. C. McLennan, F.R.S., Scientific Adviser to the British Admiralty.

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