

The number of bacteria which may pass the filter in this way is too small to be detected by the ordinary subculture control; but when entire fractions of the filtrates are incubated, the gradual lessening of the efficiency of the filter, which now permits organisms to pass, is shown. Probably the breakdown of the filter is attributable to the coating of the surface with the colloids of the culture medium and distribution of the charge on its particles.

¹ Hauduroy, P., *Comp. rend. Soc. Biol.*, 1926, xciv, 661.

² Fejgin, B., *Comp. rend. Soc. Biol.*, 1925, xcii, 1528.

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Further Evidence of the Resistance of Bacteriophage to Alcohol.

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By growing bacteria, in the presence of suitable bacteriophage, on synthetic medium with salts of ammonia as the only source of nitrogen, one may obtain lytic filtrates of very high potency. When such filtrates are fractionated and freed of all dialysable material by means of electro-ultra-filtration, it is possible, either before or after hydrolysis, to obtain a residue which is free from nitrogenous material, as tested by Nessler's reagent or ninhydrin. The active material thus obtained is not weakened in lytic activity when mixed with 10 volumes of alcohol and left at 22-25° C. for 8 days.

This observation lends further support to our earlier statement that the apparent inactivation of bacteriophage in the experiments of d'Herelle¹ was due not to the supposed virucidal action of the alcohol, but to the adsorption of the lytic agent during the precipitation of the medium, induced by the alcohol.^{2, 3} When precipitation is absent, as is the case with our purified material, no inactivation of the lytic principle takes place.

¹ d'Herelle, F., *Monog. de l'Institut Pasteur*, Paris, 1921, xev.

² Bronfenbrenner, J., and Korb, C., *PROC. SOC. EXP. BIOL. AND MED.*, 1925, xxii, 5.

³ Bronfenbrenner, J., and Korb, C., *J. Exp. Med.*, 1925, xlii, 419; 1926, xliii, 71.