the system, arranged as a condenser, through a ballistic galvanometer may be up to fourfold of those recorded at 1 volt A.C. Under these experimental conditions, flocculated systems comprising conducting particles exhibit values of specific inductive capacities reaching one or two thousand in spite of their high conductivities, and their slow rate of charge leakage is completely out of agreement with their known conductivities. Their specific inductive capacities also increase with the time under charge, often only attaining a maximum value in sixty seconds. Immediate remeasurement at a lower E.M.F. reproduces the specific inductive capacity originally shown at the lower voltage, so that the effects noted cannot be due to progressive flocculation or the more intense flocculating action induced by the electric field.

The high specific inductive capacities of flocculated dispersions must be connected in some manner with their superimposed conductivities, since dispersions of non-conductive powders show vanishingly small conductivities and low specific inductive capacities even when flocculated.

The high specific inductive capacities of flocculated systems cannot be ascribed entirely to the reduction of volume of the dielectric medium arising from the presence of the conducting particles, as deflocculated systems of similar volume concentrations show values little greater than that of the medium. Rather is it connected with the friction exhibited by the thin quasi-solid interstitial films of the medium, which give rigidity to the dispersion at concentrations of disperse phase well below those corresponding to critical packing.

A. DE WAELE
R. W. RAINBIRD

Research Laboratory,
Gestetner, Limited,
London, N.17.
Oct. 12.

Effect of Ultrasonic Vibrations on Filariasis of the Cotton Rat (*Sigmodon hispidus*)

SMALL animals are very susceptible to minute doses of ultrasonic vibration. We have tried to influence the parasites of experimental infections with *Bilharzia Mansoni* in mice and *Litomosoides carinii* in cotton rats.

With *Bilharzia*, we observed no result at all. With *Litomosoides*, we noticed in two animals a very definite action on the microfilariæ very akin to the action we observed with S. Bettini[1] on *Filaria immitis* of the dog after injection of dibromosalicyl. Our apparatus worked on a frequency of 940 kc./s.

(1) Two cotton rats were held on their backs, and their chests wetted with water. The quartz vibrator was rubbed on the chest, on the first at 1·5 watts/cm.^{2}, on the second at 2 watts/cm.^{2}, for two minutes. In the first cotton rat, we noticed a decrease from 100 to 9 microfilariæ in ten fields during the first week; then they rose again to 40.

In the second cotton rat, microfilariæ were reduced from 30 to 4 during the first week. The animal suffered from diarrhœa and conjunctivitis, and died on the eighth day. The adult filariæ in it were alive; when the head was cut off, we noticed the effect mentioned earlier[1], namely, larvæ at the morula stage and some others more advanced, but granular and irregular.

(2) In a second experiment with three cotton rats, every animal received one daily treatment during three successive days with 1·5 watts/cm.^{2} during 1, 2 and 5 min., and a daily blood examination was made.

In the first rat, there was no action at all. In the second, the microfilariæ fell from 25 to 3 and remained so for several days. The third (fall from 30 to 1) died on the seventh day, with the same symptoms as those observed in the first experiment. Adult filariæ were alive; but the appearance of the uterine content, after decapitation, was the same as in the first experiment.

The fact that the two cotton rats which received the highest dose in the two experiments died with similar symptoms and showed similar action on the microfilariæ suggests that this was due to the ultrasonic vibrations, probably acting on the parasites. We were unfortunately unable to try other frequencies which might be more effective against the parasites and less harmful to the host.

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E. LAGRANGE

Division Pharmaceutique,
Union Chimique Belge,
Brussels.
Oct. 6.

[1] Bettini, S., and Lagrange, E., *Riv. di Parassitologia*, 8 (1947).

Angstrom Units, A. or Å.?

IN 1907 the International Solar Union (later to be embodied in the International Astronomical Union) adopted I.A. for 'International angstrom'. In a report on series in line spectra prepared by A. Fowler for the Physical Society in 1922 the author says: "The unit of wavelength is the Ångström unit or 'angstrom', as it is now beginning to be called".

Since that time the use of the letter 'A.' has been in general use among spectrographers, until just recently certain authors have begun to write 'Å.' again. This would appear to be a retrograde step. It is certainly not in accord with the practice of most established workers in the subject.

In the well-known report on symbols issued by a joint committee of the Chemical, Faraday and Physical Societies in June 1937, the small capital roman 'A.', with no accent, is the accepted symbol. It also occurs thus in the Spectrophotometric Terms and Symbols laid down by a Committee for the Society of Public Analysts in 1942. Picking up a few books at random, I find that in report No. 9 on Progress in Physics, 1942–43, C. H. Bamford uses 'A.'. In the same publication R. W. B. Pearse, in a paper on "Spectra in the Night Sky", uses 'A.'; the same author in a recent Royal Society paper on the identification of molecular spectra again writes 'A.'. As for American authors, Brode ("Chemical Spectroscopy"), Sawyer ("Experimental Spectroscopy") and most authoritative of all, George R. Harrison in his "Wavelength Tables", all use 'A.'. Examples might be multiplied indefinitely, while among the hundreds of English industrial spectrochemical analysts, the practice of writing 'A.' is, I believe, universal.

F. TWYMAN

Hilger and Watts, Ltd.,
98 St. Pancras Way,
London, N.W.1.