

correlated with the fact that in pale cytolysis the pigment granules disappear, whereas they are still visible in eggs which have undergone pale cytolysis). VLÈS and GEX also studied one fertilized egg and found it had a different spectrum from eggs of the same lot examined before fertilization. But the authors prefer not to draw conclusions from this one egg, and will return to the subject later.

HEILBRUNN (Woods Hole).

VLÈS, Fred and VELLINGER, Edmond, Recherches sur le pigment de l'œuf d'*Arbacia* envisagé comme indicateur de pH intracellulaire. Arch. de Phys. Biol. **6**, 239—254; 6 fig. (1928).

The natural pigment of the *Arbacia* (sea-urchin) egg is an indicator. VLÈS and VELLINGER have used this natural pigment to determine the pH of the egg interior. Alcoholic extracts of eggs and crushed eggs were studied spectroscopically and the spectra compared with the microspectra of intact eggs. VLÈS and VELLINGER conclude that the pH of the cytoplasm in the neighborhood of the pigment granules (or perhaps in them) is 5.5 ± 0.3 . They point out that previous measurements of protoplasmic pH have involved an injury to the protoplasm. The particular merit of the present investigation is that there is no possibility of injury.

HEILBRUNN (Woods Hole).