ON THE COMPOSITION OF PELAGINE.

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Received October 7, 1895.

THE chemical composition and constitution of the violet pigment of Pelagia (one of the Medusae) has been established by us, as follows: By treatment with hot alcohol and ether the pigment and fats are dissolved and the solution, after filtration, is evaporated carefully to dryness. The residue is treated with a solution of sodium hydroxide and the pigment then rapidly extracted by means of carbon disulphide. Upon the spontaneous evaporation of the solvent, the violet pigment is obtained as an amorphous residue.

Analysis of this pigment gave the following results:

I.	Substance employed	0.2058	gram.
	Carbon dioxide	0.47325	"
	Water	0.0810	"
II.	Substance employed	0.4605	"
	Nitrogen	15.15	cc.
	Barometric reading	742.	mm.
	Temperature	15°	

Reduced to percentages and calculating the formula the following results are obtained:

	I.	II.	Calculated for $C_{20}H_{17}NO_7$.
Carbon	62.71	....	62.66
Hydrogen	4.38	....	4.43
Nitrogen	....	3.75	3.66
Oxygen	....	....	29.24

Analysis, then, would indicate the formula $C_{20}H_{17}NO_7$. Pelagine is soluble in alcohol, in ether, and in acetic acid; it is insoluble in water, but it is very soluble in carbon disulphide. Solutions of the pigment are decolorized by exposure to light and, on spectroscopic examination, do not yield characteristic absorption bands. It has, apparently, no respiratory function and probably belongs to the same order of pigments as tetronerythrin,[1] rhodopsin, etc.; in other words, pelagine is probably a lipochrome or a nitrogenous derivative of that class. In certain respects it may be said to resemble melaine, the pigment of Sepia, investigated by Girod, Variot, and Desfosses.[2]

1 *Compt. rend.*, 93, 1029.

2 *Compt. rend.*, 93, 97.