## HEATS OF FORMATION

| $H_2O$           | 3.83 Cal. | $CS_2$  | -0.25 Cal. |
|------------------|-----------|---------|------------|
| $CO_2$           | 2.22      | NaCl    | 1.67       |
| HCl              | 0.60      | LiCl    | 2.20       |
| HF               | 1.97      | NaBr    | 0.87       |
| $NH_3$           | 1.23      | NaF     | 2.64       |
| $S_2Cl_2$        | 0.08      | $Na_2S$ | 1.14       |
| $CCl_4$          | 0.49      | $SiH_4$ | -0.21      |
| $PI_3$           | 0.26      | $SiF_4$ | 2.31       |
| $\mathrm{BCl}_3$ | 0.79      | NS      | -0.69      |

Oxygen, as will be seen, far surpasses the other chemical elements (except fluorine) in the amount of energy liberated in the process of its chemical union with other substances.

Accordingly, it may be concluded that, on the whole, oxidations are the best chemical source of energy; reductions the best means of storing energy by chemical processes; and that among oxidations and reductions those of hydrogen especially, and then those of carbon, are associated with the largest energy transformations.

This is the last argument which I have to present, but it is one of the most potent. The very chemical changes, which for so many other reasons seem to be best fitted to become the processes of physiology, turn out to be the very ones which can divert the greatest