

# SCIENCE

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## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

### THE ACHIEVEMENTS OF PHYSICAL CHEMISTRY.\*

'PHYSICAL chemistry is the chemistry of the future.' These words, quoted from an address by Prof. Du Bois-Reymond, were used by Ostwald ten years ago in the introduction to the first number of the *Zeitschrift für physikalische Chemie*. In using these words Du Bois-Reymond looked forward to a time when it shall be possible to give a mathematical expression to all forms of chemical knowledge. The picture in his mind seems to have been that of a sort of astronomy of the atoms, in which the motions and forces within the molecules shall be known very much as are the motions and forces within the planetary system.

So far as any practical realization is concerned, the thought is still only a poetic fancy, and whatever progress, if any, may have been made, comes to us from organic rather than from physical chemistry. Indeed, it seems to have become the fashion on the part of several leaders in physical chemistry to speak slightly of the atomic and molecular theories. Their thought appears to be that it would be better to confine ourselves to the purely empirical and mathematical concept of the atom and molecule and leave the idea of particles

\* Address by the Vice-President before Section C—Chemistry.