

The behavior of radium and the classification itself suggest one further idea: the hypothesis that the elements are genetically related, that they have been evolved by some unknown process according to unknown laws. Certain it is that the properties of matter are no chance phenomena, and that transmutation has ceased to be merely a philosopher's dream.

All of these familiar facts of chemical science fully justify us in dealing with matter as a known factor in the study of life conditions in the universe. For, whatever may be the fate of present theories, our present practical knowledge of the behavior of matter cannot fail us in the future.

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ENERGY

Contemporary with the work of Darwin and of Mendeléeff were the feats of Mayer, Joule, Helmholtz, Kelvin, and Clausius, whereby ideas of energy assumed their modern aspect. In the revolution wrought by these men imponderables and fluids vanished from this domain, and energy became that which, not being matter, is conserved. The new principles of the 'fifties have held their own until to-day. Meantime they have