

## OBITUARIES.

ÉMILE BERTRAND (1844–1909).

Émile Bertrand was a Corresponding Member of the Crystallogical Society, becoming an Honorary Member of the Mineralogical Society with the amalgamation of the two societies in 1888. He was one of the founders of the French Mineralogical Society, and twice its president. Coming of a wealthy family, he spent some years in travel; and in 1869 he attended the Paris School of Mines, with 'une véritable passion pour la Minéralogie'. It was in 1872 that he commenced his series of researches in mineralogy, but unfortunately his brilliant scientific career was only too short. A bad state of health, which increased with years, ended in an almost complete loss of memory. Since 1888 only two papers have been published by him, the last being in 1897.

His work was two-sided in its character: he perfected instruments of research, and he used these instruments to advantage in determining the constants of minerals. Several improvements in the mineralogical microscope were made by him, one of which was the addition of the now well-known 'Bertrand lens' between the objective and the eye-piece for the purpose of showing interference-figures in convergent polarized light. He also designed a small, convenient form of refractometer. A large number of mineral species were re-examined, and it was his intention to pass in review all those which appeared doubtful. Friedelite was one of the species he discovered and described. His paper 'on the law of twinning and hemihedrism of leucophane' appeared in the Proceedings of the Crystallogical Society.

An obituary notice, written by Professor G. Wyrouboff, together with a portrait and list of papers, sixty-one in number, has appeared in *Bull. Soc. franç. Min.*, 1910, vol. xxxiii, pp. 117–124.

MARIA ARISTIDES BREZINA (1848–1909).

Dr. Aristides Brezina was elected an Honorary Member of our Society in 1895. He was born at Vienna on May 4, 1848, dying there after a long and severe illness on May 25, 1909. He entered the Royal Mineralogical Collection at Vienna (k. k. Hofmineralien-Kabinet) as a pupil at the age of fourteen, and as an assistant at the age of twenty; and when this collection was transferred to the new Natural History Museum