stand in several rows, and are so crowded that it is impossible to count them without destroying the animal; but the number has been estimated at about 50–60.

Between the proximal tentacles and the hypostome, thirty-four blastostyles (four of which are fused) were found, arranged in horseshoe-shape, the row being interrupted ventrally. The smallest blastostyles are situated nearest to the hydrocaulus, the largest ones laterally and dorsally, where they are arranged in two rows. The blastostyles are dichotomously branched and each end branch has the shape of a cluster of grapes.

The colour is pale pink, the blastostyles being pale salmon-red.

Between the blastostyles and the marginal tentacles unbranched radial canals are seen through the transparent wall of the disk. This proves that the specimen is a *Branchiocerianthus* and not a *Branchiaria*. Apart from the radial canals, nothing is known of the internal anatomy; but the external morphological characters alone reveal that the specimen cannot be referred to any of the *Branchiocerianthus* species hitherto described, namely, *B. imperator* (western and northern Pacific, Indian Ocean), *B. urceolus* (Gulf of Panama) and *B. reniformis* (Davis Strait). Nor can it be identical with the underscribed *B. italicus* (Naples), which has a colouring very different from that of our specimen. The Norwegian *Branchiocerianthus* thus undoubtedly belongs to a new species, which has been given the name *B. norvegicus*.

A more detailed description of this interesting form will be given elsewhere.

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Potassium–Argon Dating of Plio-Pleistocene Intrusive Rocks

THE potential of the potassium–argon technique in the dating of young rocks can be evaluated by applying it to intrusive igneous rocks which are well dated by conventional geological methods. Because of their possible interest, we are reporting the dating of two such igneous rocks. They occur at Sutter Buttes in the Sacramento Valley, forty miles north of Sacramento, California. Rhyolite plugs of Plio-Pleistocene age intrude and upturn sedimentary formations of late Cretaceous to early Pliocene age. Erosion uncovered the rhyolite plugs before the ensuing period of andesitic intrusions and extrusions, suggesting that the entire igneous cycle covered many thousands of years. Canyons 1,500 ft. deep have since been incised in the sedimentary complex, and much of the volcanic debris which once covered the area to a depth of 500 ft. or more has been stripped by erosion during the time since igneous activity ceased. One of the rhyolite plugs and the youngest andesite block-lava flow were dated. Biotite was used for the age determinations, essentially pure concentrates being obtained by bromoform and diiodomethane methods. Tyler mesh sizes were $-35+150$. A branching ratio of 0·110 and a decay constant of $0{\cdot}558 \times 10^{-9}$ gm. were used. The pertinent age data are given in Table 1.

Table 1

Number	Rock	Mineral	Weight (gm.)	K (%)	^{40}A (10^{-10} moles)	Age (10^6 yr.)
KA 101	Sutter Buttes andesite flow	Biotite	16·696	4·04	1·78	$1{\cdot}57 \pm 0{\cdot}24$
KA 65	Sutter Buttes rhyolite plug	Biotite	18·734	6·61	3·53	$1{\cdot}69 \pm 0{\cdot}10$

The radiogenic ages are thus in agreement with a Plio-Pleistocene age for the rocks and actually place them in the correct order. However, it must be pointed out that, within the errors of the experiment, the ages are the same. Because of the small fraction (0·08) of argon-40 which is radiogenic in *KA* 101, a 1 per cent error in the determination of the $^{36}A/^{40}A$ ratio gives rise to a 12·5 per cent error in the age. This error in the $^{36}A/^{40}A$ ratio arises from mass discrimination effects in the spectrometer and from limitations on the accuracy of measurement of the argon-36 peak. In future runs, we will attempt to minimize the influence of these factors by running a normal air-argon sample in the spectrometer immediately after the rock-argon, and by more sweeps (twenty-five) on the spectrometer. This work was supported by the Atomic Energy Commission.

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Lavoisier's Laboratory Note-books

IN the review of the first part of the *Correspondance* of Lavoisier in *Nature* of November 17, p. 1081, it is said that "M. Fric has also traced the missing volume of Lavoisier's note-books". This is based on a statement in the book reviewed. The second volume of Lavoisier's laboratory note-books is still sometimes said to be missing, although its location was pointed out in 1902 by Brocard in the *Comptes Rendus*[1]. It is *MS*. 61, *ancien* 59, in the library of Perpignan and was presented by Arago, who has written on the cover: "offert respectieusement à la Bibliothèque publique de la ville de Perpignan, par F. Arago". Arago, the distinguished physicist, was born in Perpignan. The document consists of 122 leaves, covering the period September 9, 1773, to March 5, 1774, and a note by Arago says: "Ce cahier renferme les célèbres experiences sur la calcination des métaux en vases clos, et les premières tentatives de Lavoisier sur le combustion du diamant". In the same note, Brocard gives a list of libraries in France containing documents by Lavoisier. Brocard's note seems to have been overlooked, but my attention was directed to it many years ago by the late Dr. Max Speter, who had an unrivalled knowledge of Lavoisier. M. Fric promises to publish the document in full "some day"; a summary only of its contents was given by Berthelot[2].

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[1] *C.R. Acad. Sci., Paris*, **135**, 574 (1902).
[2] *C.R. Acad. Sci., Paris*, **135**, 549 (1902), mentioning Brocard.