

inner glass wall accompanied by interference colors, which has suggested to others that the forces might be those of contraction rather than expansion, and probably produced by, rather than merely relieved by, alpha ray bombardment.

Two factors seem to control the process, intensity of radiation and degree of strain. For example, the walls of the connecting tubing showed no cracks, on account of the smaller volume of radon contained per unit of area, but nevertheless careful examination disclosed a single crack at a point where a joint and again where a bend had been made, both at points of extra stress.

A few of the larger cracks had come all the way through the wall to the surface, although the alpha rays penetrate only about .002 mm.

For future radium collection an ordinary glass flask has been substituted. The graded joint to the rest of the pyrex system is kept covered by mercury, except during actual collection, to avoid prolonged exposure to alpha rays.

Both Rutherford and Mme. Curie long ago found that fused silica is not a suitable container for radium, owing to its cracking. It is, therefore, interesting to find this same quality in glass of high silica content but not in ordinary glass of lower content.

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A NEW TERM FOR THE 10^{-8} CENTIMETER UNIT

ONE of my favorite indoor sports consists in attending meetings of societies devoted to the physical sciences, and listening to the pronunciation by different speakers of the Swedish word *ångström*, used to designate the 10^{-8} cm unit. Although the correct sound is something like *awngstrem*, at least 75 per cent. of American scientists, including not a few Nobel prize winners (of all people!), shift the vowels and render it *engstrawm*. In print this word also suffers, being sometimes spelled with a simple *a*, and sometimes even with *e*. Some organizations have indeed adopted *a.u.* as the official abbreviation, thus obscuring its derivation.

One way to deal with this situation would be to obviate entirely the necessity of using the word, and the proposal is therefore made here that units of 10^{-8} cm be given a new designation, namely atom-meter, with the abbreviation *am*.

The following advantages are possessed by the proposed symbol. It is one character shorter than the widely used *a.u.*, yet differs from this so little that substitution of the one for the other could be carried out with a minimum of misunderstanding. It does

not commit an error in transliteration, but starts with the same vowel as the word for which it stands. And it fits into the international series of designations for units of length, adding to the series *km*, *m*, *dm*, *cm*, and *mm* one more roman-character abbreviation.

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THE EXCELSIOR GEYSER, YELLOWSTONE NATIONAL PARK

IN an article describing a new geyser in Yellowstone National Park¹ it is stated that the old Excelsior Geyser has been extinct since 1888.

In the summer of 1890 I was directed by Professor Richard Rathbun, in charge of scientific investigation of the U. S. Fish Commission, to join Professor S. A. Forbes in a survey of the lakes and streams of Yellowstone National Park.

We arrived at Cinnabar on the seventeenth of July and spent our first night in the park in camp at Swan Lake Basin, about four miles from the Mammoth Hot Springs Hotel, a short distance south of "Golden Gate." The following night we camped on Canon Creek, a small tributary of Gibbon River.

At about 8:30 on the morning of the nineteenth we reached what our guide, Elwood Hofer, called Teton Hill, so named, he said, because the Teton Mountains were here visible. The Lower Geyser Basin lay at our feet, and one peak of the Teton could be seen far to the south. At one point a column of steam was rising which we estimated to be from eight hundred to one thousand feet in height. Hofer identified this steam as coming from Excelsior Geyser, which he said had been inactive since 1888.

Two hours and a half later we arrived at the Excelsior Geyser and learned that there had been eruptions in the night and morning and that the steam which we had seen from Teton Hill had risen from the last eruption. Here, also, Hofer's statement that the geyser had not been active since 1888 was confirmed.

On August 18, Professor Forbes and I were collecting on Fire Hole River from the Upper to the Lower Geyser Basins. The following extracts from notes made at the time may not be without interest in this connection.

At the bridge just below Riverside Geyser, the temperature of the water, eighty feet down stream from the bridge, near shore on the geyser side of the stream, before the eruption was 17° C. During the eruption it rose to 21° . At the center of the stream before eruption it was 15° , during eruption 16° ; on the opposite side before eruption 15° , during eruption

¹ *Science Newsletter*, August 11, 1928, p. 76; *SCIENCE*, August 17, 1928, p. xii, of *Science Supplement*.