the latter is comparatively moist; in other words, it fails to give us information regarding the rate of movement of soil moisture during conditions approximating a drouth. Experiments are now in progress with a view to extending the range of the apparatus.

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NOTES ON INORGANIC CHEMISTRY.

THE first fall number of the *Berichte* of the deutschen chemischen Gesellschaft, with its more than six hundred pages, brings an unusually large number of papers on inorganic chemistry. Several of these are of general interest.

IRON HYDROXID AS AN ANTIDOTE FOR ARSENIC.

THE discovery that freshly precipitated ferric hydroxid is an antidote for arsenic was made by Bunsen in 1834, and was the subject of his earliest scientific publication. He attributed the antidotal effect to the formation of a basic ferric arsenite; indeed, by working in an acetic acid solution he obtained a precipitate of such constitution. The suggestion was, however, early made that it was possible that a finely divided powder, of no physiological or chemical action, could under certain circumstances be active as an antidote in cases of poisoning, and large doses of magnesia were found by some physicians to be as efficient as the ferric hydroxid. The whole subject has now been gone over by Dr. Wilhelm Biltz, who finds as a matter of fact that no compound is formed between the arsenic and iron, but that the gelatinous precipitate acts wholly by adsorption. When the iron oxid is present in the proportion of eight parts to one of arsenious oxid, the removal of the arsenic from solution is almost complete. Dr. Biltz offers the suggestion that the action of antitoxins may be susceptible of a similar explanation.

PHOSPHORESCENT ZINC SULFID.

SOME ten years ago a description was published by Henry of the preparation of a brilliantly phosphorescing zinc blende which is known as 'Sidot Blende.' In this preparation one of the essentials was that the zinc used should be chemically pure. In this *Berichte* the subject is taken up by two observers, who independently come to the same conclusion, which is that a good preparation can not be made unless traces of impurity are present. The amount of this impurity should be very small, Grüne obtaining the best results when his blende contained one ten thousandth part of copper. This blende has a beautiful green phosphorescence. Silver, lead, bismuth, tin, uranium or cadmium can be substituted for the copper with good results. Hofmann finds that the best blende can be prepared by adding common salt and magnesium chlorid to a solution of the purest ammonium zinc sulfate, and precipitating with hydrogen sulfid. The unwashed precipitate is then heated to a white heat for half an hour. The resultant blende is composed of fine crystals and phosphoresces after exposure to the sunlight even more intensely than the best 'luminous paint.' Both observers find that when manganese is present as the impurity in the blende, the mass gives an especially beautiful golden yellow phosphorescence, which is also induced by friction, as is the case with some natural blendes. These artificial blendes are particularly valuable for use with radium, but they have no radio-activity of their own.

PLATINUM SULFATE.

SOME time since it was announced by Margules that platinum could be brought into solution in sulfuric acid by the action of the alternating current between platinum poles. At that time the compound formed could not be made to crystallize and its constitution was doubtful. More recently, by using concentrated sulfuric acid Margules has obtained the compound in deep orange-red crystals which are very hygroscopic and excessively soluble in water. These have been analyzed by Stuchlik, and found to be the sulfate of quadrivalent platinum of the composition, $Pt(SO_4)_2$, $4H_2O$. When the salt has been completely freed from the adherent sul-

furic acid by repeated recrystallization it loses its water of crystallization readily, becoming much darker, but when a trace of sulfuric acid is still present the salt is very stable, hardly changing at 100°.

A NEW CARBID OF MOLYBDENUM.

In his book upon the electric furnace Moissan describes a carbid of molybdenum of the formula Mo_2C. This is formed at the highest temperature of the electric furnace, from a mixture of the oxid of molybdenum and carbon. If an excess of carbon is used, it is found in the mass as graphite. Now by working at a somewhat lower temperature, and having in the furnace the metal molybdenum with a little carbon and an excess of aluminum, a new carbid is formed, of the formula MoC. It is obtained as a gray crystalline powder, harder than quartz but less hard than the ruby. It is not attacked by water even at 600° and hardly by acids except nitric. It is analogous to the carbid of tungsten, WC, and Moissan considers that it is present as a double carbid in molybdenum steel. J. L. H.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MINUTES OF SPECIAL MEETING OF COMMITTEE ON POLICY OF THE ASSOCIATION.

The committee met at Philadelphia, on October 21, at 2 P.M., Messrs. R. S. Woodward, H. L. Fairchild, J. McK. Cattell, Edgar F. Smith and L. O. Howard being present. In the absence of the president, Mr. Woodward took the chair.

The matters referred to the committee by the council at the St. Louis meeting were taken up in order with the following actions:

1. In regard to the disposal of back volumes it was

Recommended, That the permanent secretary be authorized to offer sets of the back volumes of the proceedings to libraries which shall be approved by a committee of the association appointed by the president.

2. The amendment to article 34, of the constitution, relating to the abolition of the $2 fee for fellowship was considered and it was

Recommended, That the amendment be adopted.

3. The amendment to article 4 line 2, to read 'The members of at least one year's standing who are professionally engaged in science and have by their labors aided in advancing science,' was considered, and it was unanimously

Recommended, That the amendment be not passed.

4. The subject of a possible amendment to article 17 of the constitution was considered and action was postponed.

5. The question of trimming the edges of the journal Science, which had been referred to the committee was considered and it was

Recommended, That the publishers of Science be requested to announce prominently that cut copies will be sent to members who request it.

The following new matters were then brought up and the following actions taken:

1. The committee on the policy of the association recommends that two or three addresses of the vice-presidents be given on each afternoon of the week of the meeting and that the addresses be followed by a discussion or series of papers that will be of interest to students of other sciences and to the intelligent public. It is recommended that the addresses before Sections A, E and F be given on Wednesday; before Sections B, G and I, on Thursday, and before Sections C, D and H on Friday. The secretaries and sectional committees are requested to prepare suitable programs to follow the addresses of the vice-presidents.

2. The committee on policy of the association requests the permanent secretary to write a letter to each member of the sectional committees calling attention to the fact that the alteration of the constitution making the term of office five years creates a council for each section. It is hoped that each member will if possible be present at the Philadelphia meeting and before, during and after the meeting endeavor to promote the interests of the section and of the sciences included in it. The sectional committees are expected to make the program as strong as possible, inviting mem-