

*Chemotherapeutic studies of various aromatic organic arsenicals:* GEORGE W. RAIZISS and JOSEPH L. GAVRON. The authors have found that in experimental trypanosomiasis due to infection with *T. equiperdum* complete cures may be effected by employing very pure samples of the two pentavalent organic arsenicals—p-arsanilic acid and 3-amino-4-hydroxyphenylarsonic acid. The chemo-

therapeutic indices  $\frac{\text{maximum tolerated dose}}{\text{minimum curative dose}}$ , which

are 6.7 and 10, respectively, are of particular interest in view of the favorable results obtained by various French investigators in the treatment of human syphilis with the above arsenicals. Furthermore, by utilizing these compounds as coupling agents the authors have prepared various arsenical dyes and found them to possess but feeble trypanocidal properties. Methods for the preparation of pure p-hydroxyphenylarsine and 3-amino-4-hydroxyphenylarsine have also been developed.

*Experimental work in the prediction of physiological action:* OLIVER KAMM. Considerations from the standpoint of molecular magnitude are of value in predicting certain toxicity data of mono-hydroxy alcohols. From the physiological results obtained with aliphatic members it was possible to predict corresponding effects of alcohols of the benzyl type, thus showing that benzyl compounds are devoid of certain specific effects sometimes credited to them.

CHARLES L. PARSONS,  
Secretary

## THE AMERICAN ASTRONOMICAL SOCIETY

THE twenty-eighth meeting of the society was held at the Yerkes Observatory, Williams Bay, Wisconsin, on September 5 to 8, 1922. This was the twenty-fifth anniversary of the opening of the observatory and also of the founding of the society, which grew out of the conference of astronomers held in connection with the dedication of the observatory in 1897. The members and visitors, who numbered about one hundred, were quartered at the Y. M. C. A. Camp on the shore of Lake Geneva.

Sessions for papers extended over three days, and the social events included a reception at the home of Director and Mrs. Frost, a boat ride on Lake Geneva, and the annual

dinner. On one evening Professor E. E. Barnard gave an illustrated lecture on "Some Peculiarities of the Comets," and the anniversary celebration included reminiscences of the twenty-five years of the observatory and of the society. A series of astronomical moving pictures was also exhibited.

Nineteen new members were elected to the society, bringing the total membership up to three hundred and ninety. The society elected to honorary membership Professor H. H. Turner, director of the University Observatory, Oxford, England.

Officers for the ensuing year are as follows:  
*President:* W. W. Campbell.

*Vice-presidents:* John A. Miller, Henry Norris Russell.

*Secretary:* Joel Stebbins.

*Treasurer:* Benjamin Boss.

*Councilors:* Philip Fox, Caroline E. Furness, A. O. Leuschner, John M. Poor, Charles E. St. John, Frank Schlesinger, Frederick Slocum.

*Members of the National Research Council:* W. W. Campbell, Edwin B. Frost, Henry Norris Russell.

The next meeting of the society will be held in affiliation with the American Association for the Advancement of Science at Boston and Cambridge in December, 1922.

The program of papers was as follows:

*A spectroscopic method of deriving the parallaxes of A-type stars:* WALTER S. ADAMS and A. H. JOY.

*Partial explanation, by wave-lengths, of the K-term in the B-types:* SEBASTIAN ALBRECHT.

*Trigonometric parallax of the Pleiades:* HAROLD L. ALDEN.

*The variable star, M 5, Bailey 33:* E. E. BARNARD.

*Saturn's rings when the earth passed through their plane in 1920-1921:* E. E. BARNARD.

*Redetermination of secondary standards of wave-length from the new international iron arc:* KEVIN BURNS, C. C. KIESS and W. F. MEGGERS.

*The orbit of the spectroscopic binary H. R. 6532:* J. W. CAMPBELL.

*Nova Scorpii No. 3 (1922):* ANNIE J. CANNON.

*Measurements of planetary radiation:* W. W. COBLENTZ and C. O. LAMPLAND.

*On the light variations of Beta Lyrae and Delta Cephei:* R. H. CURTISS.

*The parallax of Capella from desensitized plates:* ZACCHEUS DANIEL.

- A new spectrocomparator:* RALPH E. DELURY.  
*The Steward Observatory of the University of Arizona:* A. E. DOUGLASS.
- The variable double star X Ophiuchi:* C. H. GINGRICH.
- Parallax of the nebula surrounding B.D.+31°643:* C. H. GINGRICH.
- The orbits of the spectroscopic components of Boss 3793 (foll.):* W. E. HARPER.
- Two long period spectroscopic binaries:* W. E. HARPER.
- The relation between the stars of the Beta Canis Majoris type and the Cepheid variables:* F. HENROTEAU.
- Proper motions of stars from micrometric measures:* LAURA E. HILL.
- A table of  $x - \sin x$ :* HERBERT A. HOWE.
- The variable star SX Herculis:* M. F. JORDAN.
- Wave-lengths in the red and infra-red spectra of oxygen and nitrogen:* C. C. KIESS.
- Photometry of moon:* EDWARD S. KING.
- Color-index apparatus:* EDWARD S. KING.
- Photographic observations of nebulae:* C. O. LAMPLAND.
- A new scouting spectroscope for prominences:* OLIVER J. LEE.
- On the determination of magnitude error by Kapteyn's "spot" method:* OLIVER J. LEE.
- The distribution of novae:* KNUT LUNDMARK.
- Historical note concerning the fundamental equations in stellar statistics:* KNUT LUNDMARK.
- The proper motions and mean parallax of spiral nebulae:* KNUT LUNDMARK.
- The influence of a general cosmic curvature on the Einstein phenomena in the solar system:* A. C. LUNN.
- Internal motion in the spiral nebulae:* N. G. C. 2403, 4736 and 5055: A. VAN MAANEN.
- The quantum theory of photographic exposure:* C. E. K. MEES.
- The graininess of photographic negatives:* C. E. K. MEES.
- Some new sensitizing dyes:* C. E. K. MEES.
- The relation between intensity and exposure:* C. E. K. MEES.
- Interferometer measurements of the longer waves in the iron arc spectrum:* W. F. MEGGERS and C. C. KIESS.
- Recent advances in nebulae:* D. H. MENZEL.
- Interferometer measures of star diameters:* A. A. MICHELSON and F. G. PEASE.
- Trigonometric parallaxes of Cepheids and early type stars determined by photography at the Leander McCormick Observatory:* S. A. MITCHELL.
- On the daily variation in clock corrections:* H. R. MORGAN.
- Photometric results in certain Kapteyn areas:* J. A. PARKHURST.
- The total radiation of variable stars observed with the vacuum thermocouple at Mt. Wilson:* EDISON PETTIT and SETH B. NICHOLSON.
- A pendulum method of recording radio time signals:* EDWARD C. PHILLIPS.
- The ultra-violet spectrograph of the 72-inch telescope:* J. S. PLASKETT.
- The spectra of three O-type stars:* H. H. PLASKETT.
- Some fine occultations coming:* WILLIAM F. RIGGE.
- Planetary photography:* FRANK E. ROSS.
- Accuracy of photographic registration:* FRANK E. ROSS.
- Notes on ionization and pressure in the stars:* HENRY NORRIS RUSSELL.
- Further observations on wave-lengths in the spectrum of Venus:* CHARLES E. ST. JOHN and SETH B. NICHOLSON.
- The problem of three bodies and the spectrum of neutral helium:* LUDWIK SILBERSTEIN.
- A possible new method of stellar photometry:* LUDWIK SILBERSTEIN.
- Observation of temporary white areas on Mars:* E. C. SLIPHER.
- The star fields for the 1923 and 1925 total eclipses of the sun:* FREDERICK SLOCUM.
- On ionization in stars:* JOHN Q. STEWART.
- On the spectroscopic binary Gamma Ursae Minoris:* OTTO STRUVE.
- Chronographic recording of wireless time signals:* R. MELDRUM STEWART and J. P. HENDERSON.
- Comparison between Paris and Washington time services based on chronographic registration of Bordeaux, Annapolis, and Arlington radio time signals:* F. D. URIE.
- Observations of Jupiter's faint satellites, and of Phæbe, with the two-foot reflector of the Yerkes Observatory:* G. VAN BIESBROECK.
- Radial velocity of the Praesepe cluster from objective-prism neodymium plates:* H. C. WILSON.
- Eclipsing variables showing two spectra:* C. C. WYLIE.
- Proper motions of some faint stars:* EVERETT I. YOWELL.
- Uniform clock rates for a period of an entire year:* M. L. ZIMMER.

JOEL STEBBINS,  
 Secretary