

Saturday morning will be devoted to "Some Applications of Knowledge of Structure," with Saul Dushman as discussion leader.

There will be twenty-seven papers on these five half-days, but since preprints are to be made available in advance of the meeting, the time required for presentation is expected to be small and the discussion will be allowed to take most of the time. Contributions to the discussion should be sent (in advance of the meeting, if possible) to Dr. W. A. Noyes, Jr., Brown University, Providence, R. I.

Only contributions received before January 10, 1937, can be considered for publication with the discussion. Such comments will be subject to editorial control and revision and probably space limitations will prevent the publication of the entire discussion.

On Saturday afternoon a session will be devoted to papers which were completed too late for inclusion among the preprints. The details of this session as well as the complete program of the other papers will appear in the News Edition of *Industrial and Engineering Chemistry*.

Preprints may be ordered from the Secretary of the Division of Physical and Inorganic Chemistry, Professor George Scatchard, Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Mass. The price will be one dollar (except to the members of the division, who may order one copy each at the special rate of fifty cents).

Those planning to attend the symposium should make their own arrangements for hotel accommodations. Thirty rooms are available at the Graduate College at two dollars a night and reservations may be made through E. A. Smith, Graduate College, Princeton University, Princeton, N. J.

The registration fee will be fifty cents except to American chemists who are not members of the American Chemical Society, for whom the registration fee will be one dollar. The registration fee may be paid to the secretary of the division, Professor Scatchard, in advance of the symposium. In order that the committee may form an estimate of the probable

attendance a pre-payment of this registration fee would be appreciated by members of the committee.

The arrangements for the symposium have been under the direction of a committee consisting of H. L. Johnston, *chairman*, Farrington Daniels, Saul Dushman, W. M. Latimer, W. A. Noyes, Jr., H. S. Taylor, H. H. Willard and H. C. Urey, with John Turkevich, Princeton University, as local representative.

THE AMERICAN SCIENCE TEACHERS' ASSOCIATION

THE tentative program for the meeting of the American Science Teachers' Association, affiliated with the American Association for the Advancement of Science, on December 31 at Atlantic City is as follows:

MORNING

"Composition of the Upper Atmosphere." Speaker: W. J. Humphreys, U. S. Weather Bureau.

"The Relative Claims of Natural Science and of Social Studies to a Core Place in the Secondary School Curriculum." Speakers: for natural science—Dr. Oscar Riddle, Carnegie Institution of Washington; for social studies—Dr. Roy W. Hatch, Montclair State Teachers College.

Discussion by leaders and from the floor.

LUNCHEON

Speaker: Dr. Edwin G. Conklin, president of the American Association for the Advancement of Science.

AFTERNOON

"The Next Ten Years in Science Education." Speaker: Dr. Otis W. Caldwell.

Discussion by leaders and from the floor.

"The Need for a National Publication for Science Teachers." Speaker: Professor Earl R. Glenn, Montclair State Teachers College.

Discussion by leaders and from the floor.

"Theories of Solar System Origin." Speaker: ———

Discussion by leaders and from the floor.

or

"Desirable Training for Science Teachers." Speaker: ———

Discussion by leaders and from the floor.

Business meeting.

SCIENTIFIC NOTES AND NEWS

DR. ALFRED NORTH WHITEHEAD, since 1924 professor of philosophy at Harvard University, who is now seventy-five years old, will retire with the title professor emeritus next September. He will also resign as senior fellow in the Society of Fellows. It is planned that the annual sessions of the American Philosophical Association, which will be held in Cambridge on December 28, 29 and 30, be in his honor.

PROFESSOR LEO LOEB will retire from the chair of

pathology and as head of the department at the Washington University School of Medicine on January 1.

DR. WILLIAM T. HORNADAY, who was for thirty years director of the New York Zoological Society, celebrated his eighty-second birthday on December 1.

THE honorary doctorate of science was conferred by Alfred University on Founders' Day, December 3, on Professor Alexander Silverman, head of the department of chemistry of the University of Pittsburgh, who

delivered the Founders' Day address. He spoke on "A Better World through Science."

THE degree of doctor *honoris causa* was conferred on Professor George David Birkhoff, professor of mathematics at Harvard University, by the University of Paris, and on Dr. Israel Holmgren, professor of physiology at the Caroline Institute of Stockholm, on November 1, in the presence of M. Albert Lebrun, president of the French Republic, the Minister of Education and the Rector of the university.

At the Cincinnati meeting of the Radiological Society of North America, gold medal achievement awards were presented to Dr. Edwin C. Ernst, of the Barnard Free Skin and Cancer Hospital and the De Paul Hospital of St. Louis, in recognition of his "work as collaborator and as an organizer in obtaining world-wide acceptance of the Roentgen unit as the standard of ray measurement and application," and on Dr. Otto Glasser, director of the department of radiation research of the Cleveland Clinic Foundation, in recognition of "the development of the ionization chamber and an instrument for measurement of x-rays in terms of 'Roentgen units.'"

THE medal of the Technical Association of the Pulp and Paper Industry for 1937 has been awarded to Dr. Clarence J. West, editor of *Institute of Paper Chemistry*, formerly director of the department of research information of the National Research Council. The presentation will be made in February at the annual meeting of the association.

DR. JAMES T. NIX, of New Orleans, has been appointed director of the Louisiana State University Graduate School of Medicine.

DR. H. P. COOPER, head of the department of agronomy at Clemson College, S. C., was recently appointed director of the Agricultural Experiment Station.

DR. MORRIS S. KHARASCH, of the University of Chicago, has been appointed Carl William Eisendrath professor of chemistry. Dr. Kharasch succeeds Professor William D. Harkins, who has been named Andrew McLeish distinguished service professor.

THE REVEREND JAMES CASTIELLO, S.J., of Fordham University, has been appointed acting director of the department of psychology of St. Louis University, succeeding the Rev. Raphael C. McCarthy, who recently became president of Marquette University.

DR. DONALD H. CHAPMAN has been promoted to an assistant professorship in the department of geology at the University of New Hampshire and has been given charge of the work in geography and meteorology.

WILLIAM J. TALBOT, formerly Commonwealth fellow

at the University of California, has been appointed head of the department of geography recently established in the University of Cape Town, South Africa. Mr. Talbot, who before going to California was associated with the department of geography in the University of Glasgow, has been carrying on research work in South Africa since 1931.

DR. ROBERT B. GREENOUGH, president of the American Society for the Control of Cancer, consulting surgeon to the Collis P. Huntington Memorial Hospital, a member of the Harvard Cancer Commission, has been elected to the board of managers of Memorial Hospital for the treatment of cancer and allied diseases, New York City.

THE Academy of Medicine, of Washington, D. C., plans an extended study of the medical aspects of the interaction between man and his environment. On December 8 the academy met for discussion of "The Reaction of the Individual to His Social Environment, with Special Reference to Emotions as a Factor in Disease." The committee in charge of this phase of the subject consists of Dr. Walter L. Treadway, assistant surgeon-general in charge of mental hygiene, and Dr. Henry H. Hazen, consulting dermatologist, both of the U. S. Public Health Service; Dr. Lewis C. Ecker, associate professor of medicine, Georgetown University Medical School; Dr. Earl B. McKinley, dean, George Washington University School of Medicine, and, from the same institution, Dr. Walter A. Bloedorn, professor of medicine; Dr. William J. Mallory, professor of medicine, and Dr. Vincent du Vigneaud, professor of biochemistry.

A SCIENTIFIC advisory committee of Western Pennsylvania has been formed to advise students in chemical engineering at the University of Pittsburgh. It is planned to make it possible for students to keep in close touch with the chemical engineering industries in the district. Members of the advisory committee will serve as consultants. The committee includes: Dr. F. W. Adams, Mellon Institute; Dr. Eugene Ayers, chief of the division of chemical research, Gulf Research Laboratory, Harnarville; Dr. F. C. Frary, director of research, Aluminum Company of America, New Kensington; Dr. E. E. Marbaker, president of the Pittsburgh section, American Institute of Chemical Engineers; Dr. H. K. Work, director of research, Jones and Laughlin Steel Corporation; Allen D. MacLean, chief engineer, Pittsburgh Equitable Meter Company, and Fred Dening, vice-president, Koppers Research Company.

PROFESSOR ACHARD, member of the Institute of France and general secretary of the Academy of Medicine, has undertaken a mission to Western French

Africa, to study the sanitary reorganization of the colony.

DR. SVEN HÖRSTADIUS, professor of embryology, Stockholm, Sweden, is visiting the United States.

DR. FREDERICK TILNEY, professor of neurology and director of the Neurological Institute of Columbia University, gave an illustrated lecture before the Neurological Study Unit of the Yale University School of Medicine on November 10. He spoke on "The Glands of the Brain with Special Reference to the Pituitary."

DR. S. WALTER RANSON, professor of neurology and director of the Institute of Neurology of Northwestern University Medical School, will deliver the third Harvey Society Lecture at the New York Academy of Medicine on December 17. Dr. Ranson will speak on "Some Functions of the Hypothalamus."

DR. LOYD A. JONES, chief physicist of the Eastman Kodak Company, lectured on December 3 before the Franklin Institute, Philadelphia, on "An Analysis of the Quality of Photographic Pictures."

At the annual dinner of the Smith-Reed-Russell Society, on November 17, Dr. Charles Franklin Craig, of the School of Medicine of Tulane University, gave the oration, his subject being "Factors Influencing the Transmission of Malaria." Dr. Ernest Muir, secretary-general of the International Leprosy Association, a guest of the Leonard Wood Memorial in the United States, gave the second Smith-Reed-Russell lecture at the School of Medicine of the George Washington University on November 17. He spoke on "The Reaction of the Tissues to the Leprosy Organism."

THE fifty-fifth series of popular medical lectures of the Stanford University School of Medicine, San Francisco, will be given on alternate Friday evenings at 8:00 P.M., during the winter quarter. The lecturers, titles and dates are as follows: Dr. Jacques P. Gray, "Syphilis and Its Control," January 8; Dr. Benjamin W. Black, "The County Hospital and the Public," January 22; Dr. William C. Voorsanger, "Recent Advances in the Treatment of Tuberculosis," February 5; Dr. Frederic C. Bost, "The Crippled Child," February 19; Dr. Sanford M. Moose, "Behind the Scenes of Pain Relievers in Dentistry," March 5; Dr. J. Marion Read, "The Rising Death Rate from Heart Diseases," March 19.

THE annual meeting of the Sigma Xi Club of Southern California was held at Occidental College on the evening of November 19. The address was given by Dr. Paul Popenoe, director of the Institute of Family Relations and secretary of the Human Betterment Foundation, on "The Psychology of Sex

Differences." At the business meeting following Roger Truesdale was elected president and J. A. Hartley, secretary-treasurer for the coming year. The retiring officers are H. J. Quayle, president, and H. B. Frost, secretary-treasurer.

THE postponed eleventh International Congress of Psychology will be held at Paris from July 25 to 31. The honorary president will be Professor Pierre Janet. Professor Henri Piéron is president of the organization committee and the general secretary is Professor I. Meyerson. The headquarters of the congress are at the Laboratory of Psychology of the Sorbonne.

THE annual meeting and dinner of the New York Academy of Sciences and affiliated societies will take place on Monday, December 21.

THE two hundred and tenth regular meeting of the American Physical Society will be held at the California Institute of Technology on December 18 and 19. On Saturday morning invited papers on problems related to the telescope project will be presented by Dr. John Strong and Dr. J. A. Anderson, who will also conduct an inspection tour of laboratories and shops engaged in work on the telescope. Dr. Strong will speak on "The Evaporation Process and its Application to Optical Surfaces." Dr. Anderson's title will be "Some Problems Connected with the 200-inch Telescope."

THE *Journal* of the American Medical Association reports that a collection of papers and personal effects of Dr. William Beaumont has been given to the University of Chicago by his grandson, Ethan Allen Beaumont, and his wife, of De Pere, Wis. The collection, consisting of first editions, unpublished letters, a case history, surgical instruments, photographs and a chair presented to the Beaumonts by Robert E. Lee, who once lived with them in St. Louis, was on exhibition at the university library on November 20, together with an oil portrait of Dr. Beaumont lent by A. C. Denny, of Evanston. During the exhibition, addresses were delivered by Dr. Robert Maynard Hutchins, president of the university, and Drs. Anton J. Carlson, Arno B. Luckhardt and Selim W. McArthur. The program, sponsored by the friends of the library of the University of Chicago, was planned to coincide with the one hundred and fifty-first birthday of Dr. Beaumont on November 21.

ACCORDING to *Nature*, C. R. Fairey, past president of the Royal Aeronautical Society, and F. Handley Page, vice-president, have jointly agreed to give £750 a year for seven years to the society. The object of this gift is to enable it to carry out as fully as possible its main object, "the general advancement of aeronautical science and engineering," and to enable it to

be placed on a self-supporting basis. The intention is that the society should become completely independent of donations from outside bodies, so that it may be free to express opinions upon aeronautical research and engineering when necessary, and can encourage the dissemination of papers and information on all matters pertaining to aeronautical research and engineering.

An industrial fellowship to investigate the durability of automotive tire chains has been founded at Mellon Institute of Industrial Research by the McKay Company of Pittsburgh, Pa., which manufactures commercial chains of all types. The fellowship has for its objective the production of better chains, particularly for the motorist. A comprehensive program of basic research is being carried on, including studies of the design, materials, processes of manufacture and testing of chains. Dr. David F. Helm, research engineer on cast iron metallurgy in the Engineering Experiment Station of the Ohio State University, previously chemist with the Midgley Foundation at Columbus, Ohio, is in charge of the investigation.

A WIRELESS dispatch from Paris to *The New York Times*, dated November 12, states that it is planned to proceed at once with the building of an astronomical observatory on a peak near Forquallquier, in the Basses Alpes, between Avignon and Digne. The atmosphere at that altitude, about 2,000 feet, is said to be especially favorable to astronomical observation. The best available telescopes in France will be installed at once. A contract has been signed for the construction of a two-meter telescope, which will be the second largest after the new telescope in California, and for another telescope, the dimensions and mechanical and optical features of which it is said will make it the most powerful in the world.

THE Crockett scientific expedition, sponsored by the

Philadelphia Academy of Natural Sciences, sailed on December 3 aboard the two-masted schooner *Chiva* for an eighteen-month voyage among south Pacific islands. The party plans to search the islands for certain specimens of bird and animal life. It also hopes to obtain new information about the geological structure of the islands and the history and habits of the natives.

Museum News reports that plans have been drawn and work begun on the new Fleishacker Zoological Park at San Francisco, which is planned eventually to cover eighty acres. Plans now being carried out provide for the erection of the principal buildings on 40 acres, the remaining 40 acres to be developed later into barless yards and paddocks for antelope, deer and other large hoofed mammals. The largest of the buildings will be the pachyderm house, which will have stalls 30 feet square for elephants, hippopotamuses and rhinoceroses. These stalls will be connected, through sliding doors, with barless outside yards and swimming pools. A feline house for tigers, leopards, pumas, panthers, jaguars and other cats will have on one side, for tigers and lions, four large barless yards bordered with moats 12 feet deep and 20 feet wide; on the opposite side, barred cages for the species that are too agile to be safely exhibited in barless yards. A monkey island, surrounded by a 15-foot moat, will provide quarters for 100 monkeys. Five barless bear dens, now partially constructed, will have open yards surrounded by artificial rock mountains and, in front, a 15-foot moat. Each yard will have a swimming pool in the center. Other structures planned are a flight cage for aquatic birds, a house for finches and song birds, an African veldt with artificial stone walls and moated front, monkey house, reptile house, sheep and ibex mountain and lagoons for sea lions and seals.

DISCUSSION

DO BRAIN WAVES HAVE INDIVIDUALITY?

CAN an individual be identified by his brain potentials? This is an interesting and important point.

Dr. Hallowell Davis, of Harvard, stated at the last meeting of the American Medical Association that the brain potentials of a given individual were distinctive of that individual, and that individuals could be distinguished from each other by their brain potentials. However, he presented no quantitative treatment of records to substantiate this view.

To answer this question, we obtained a fair sampling of brain potentials from 44 healthy university students approximately equally divided in regard to sex.

The experimental conditions were kept as constant as possible from subject to subject. The observer reclined on a bed in a dark room. He was instructed to keep his eyes closed and his mind a blank. The brain potentials were led off from the right occipital and the right motor areas. They were recorded by means of standard amplifiers and a Westinghouse oscillograph.

The following procedure was used in identification of individual records. A two-foot strip (matching sample) was cut off from the end of each record. The remainder of the record, which averaged about ten feet in length, was pasted on a wall with the cut-end turned under from 6 to 8 inches. Twenty-two such records were exhibited at one time. Four of us who