

## Societies and Academies.

## PARIS.

**Academy of Sciences, August 17.**—A. Lacroix : The crystalline schists containing dumortierite and lazulite of Madagascar.—Charles Moureu, Charles Dufraisse, and Marius Badoche : Autoxidation and antioxygen action. The catalytic actions of various nitrogen compounds. Eighty-three nitrogen compounds of various types have been studied and from the results obtained certain general conclusions can be drawn. The amino group possesses marked antioxygen properties, but the amido group is only slightly active. The aminophenols are especially active, one part in 10,000 completely protecting acrolein from oxidation.—G. Pólya : Linear functional operations exchangeable with the derivation and on the zeros of the polynomials.—Silvio Minetti : The radius of convergence and the singularities of certain Taylor developments and the analytical functions which they define.—Carl A. Garabedian : A disc of constant or variable thickness in uniform or accelerated rotation.—N. Boneff : The arrival in the solar system of a foreign star. A theoretical study extending the conclusions given in a recent paper by Chazy.—A. Piccard and E. Stahel : Michelson's experiment, realised in a free balloon. Details of four experiments carried out at an altitude of 2500 metres and another series at an altitude of 4500 metres. The accuracy of the measurements was not sufficient to confirm or refute the experiments of Miller at Mount Wilson, but it can be said that if Miller's ether wind exists it does not increase with altitude.—A. Korczynski and B. Fandrich : The preparation of nitriles by the diazo reaction. Experiments to determine to what extent nickel chloride with potassium cyanide can replace cuprous cyanide in the preparation of nitriles. It was proved that the nickel reaction could be generalised and that the yields were better than when cuprous salts were used in the Sandmeyer reaction.—Jacques Bourcart : Preliminary observations on the tectonic of the Bouches de Cattaro.—V. Agafonoff : The podzolic process in the sandy soils of the Landes.—Gabriel Guilbert : The visibility of the atmosphere. There is no connexion between the presence of haze in the air and hygrometric state and various explanations put forward to explain the nature of haze are considered by the author as unsatisfactory.—E. Lacroix : The use of coccoliths by the arenaceous Foraminifera for building their shells.—G. and R. Moussu : Normal glycemia in cattle. Glycemia and vitular disease in cows in milk.

## ROME.

**Royal National Academy of the Lincei, June 20.**—O. M. Corbino and T. Levita-Civita : Doppler's principle and the ballistic hypothesis of light. According to the ballistic theory of light, the velocity of the light emitted from a source moving relatively to the observer is represented by the vectorial sum of the normal velocity of the light and that of the source. This would indicate the existence of a Doppler effect of velocity and also a Doppler effect of acceleration, which would be capable of reaching values considerably greater than the former. The consequences of this conclusion are, however, untenable, and the ballistic hypothesis is hence incompatible with the ordinary postulates of classical physics.—Leonida Tonelli : Certain properties of a polynomial of approximation.—A. Russo : The two sexual cycles of *Cryptochilum echini* Maupas take place with two classes of individuals, which divide and regenerate in different fashions.—Silvio Minetti : Radius of con-

vergence of the Taylorian development  $\sum a_n z^n$  where  $a_n = g(n)$  for  $n$  wholly positive with  $g(n)$  wholly transcendental.—Vladimiro Bernstein : Interpolation by means of holomorphic functions in a semi-plane.—Filippo Burzio : Mayevski's law for ballistic precession.—Giulio Krall : Conditions for the stability of elastic equilibrium.—Glaucio de Mottoni : A new method for measuring microscopic and ultramicroscopic distances by means of diffraction gratings. Ronchi has recently devised a stellar interferometer based on a new application of rectilinear and circular dioptric gratings. It is now shown that the application of such gratings to the microscope admits of approximately sixfold increase in the resolving power of the instrument.—Francesco Vercelli : Results of the cruise of the (Italian) naval ship *Marsigli* in the Straits of Messina. The influences of physico-chemical factors on the currents in the Strait are considered.—Alberto Pirovano : The possibility, by means of ionolysis, of hybridising species having little affinity.—Giulio Cotronei : Morphology and ecology in the study of *Petromyzon*.—Ettore Remotti : Reactions to luminous stimuli and their probable relation to morphological arrangements in the salmon during development.

## Diary of Societies.

## SATURDAY, SEPTEMBER 18.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS (North-Eastern and Yorkshire Districts) (at Whitby), at 12.  
INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS (South-Eastern District) (at Rural Council Offices, Epsom), at 2.30.—T. E. Ware and others : Discussion on Epsom Rural District.

## TUESDAY, SEPTEMBER 21.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Civil Engineers), at 10 A.M.—Report of Advisory Committee on Education, presented by F. W. Goodenough.—Fifteenth Report of the Gas Investigation Committee : Methods of Testing Products of Combustion from Gas Appliances.—C. H. Rutter : The Development and Reconstruction of the Portslade (Brighton) Gasworks.—Sixteenth Report of the Gas Investigation Committee : Studies in Carbonisation. Part I. Influence of Size of Coal.

## WEDNESDAY, SEPTEMBER 22.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Civil Engineers), at 10 A.M.—T. F. E. Rhead : Investigation of some of the Factors affecting Carbonisation in Continuous Vertical Retorts.—Report of the Refractory Materials Joint Committee, presented by J. P. Leather.

## THURSDAY, SEPTEMBER 23.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Civil Engineers), at 10 A.M.—A. W. Sumner : The Distribution of Gas at High Pressures.

## FRIDAY, SEPTEMBER 24.

INSTITUTION OF FUEL ECONOMY ENGINEERS (at Royal Society of Arts).—Dr. A. E. Dunstan : Liquid Fuels.

## CONGRESSES.

## SEPTEMBER 19 TO 26.

GERMAN SCIENTIFIC AND MEDICAL ASSOCIATION (at Düsseldorf).

## SEPTEMBER 22 TO 24.

GERMAN RÖNTGEN SOCIETY (at Düsseldorf).—Discussions on X-ray Treatment of Inflammation, the Compton Effect, and Irradiation of the Ovary and Offspring.

## SEPTEMBER 24 AND 25.

READING AND DISTRICT TEACHERS' ASSOCIATION (at Reading University).—Discussion on Education and Life.  
September 24.—Prof. Winifred Cullis : The Teaching of Biology in Schools.  
September 25.—Mrs. A. H. Radice : The Changing Child.—N. Richmond : The Physiological Basis of Change.

## SEPTEMBER 26 TO 29.

INTERNATIONAL CONGRESS OF INDIVIDUAL PSYCHOLOGY (at Düsseldorf).

## SEPTEMBER 26 TO OCTOBER 2.

CONGRÈS DE CHIMIE INDUSTRIELLE (at Brussels).

## SEPTEMBER 27 TO 30.

ALL RUSSIAN OPHTHALMOLOGICAL CONGRESS (at Moscow).

## SEPTEMBER 30 TO OCTOBER 2.

GERMAN SOCIETY OF UROLOGY (at Vienna).

## OCTOBER 13 TO 26.

GERMAN SOCIETY FOR THE STUDY OF DISEASES OF DIGESTION AND METABOLISM (at Berlin).

## OCTOBER 25 TO 28.

ITALIAN CONGRESS OF SURGERY (at Padua).