

Prof. H. E. Reilley -

1. Conductivity of animal membranes. Strength of tendrons, arteries etc., and other problems related to the preceding.
2. E. M. F. of Standard Cells.  
Temperature of Standard Cells.
3. Courses in Optics, Quantum Theory, and laboratory work in optics.

Dr. E. S. Bieler -

1. Investigation of the law of force in the neighbourhood of the nucleus of heavy atoms by a study of the scattering of swift  $\alpha$ -particles through large angles.

Dr. J. S. Foster -

Apparatus is being assembled for a continuation of an investigation of the effect of electric fields on spectral lines. A large six-prism spectrograph is under construction. Arrangements have been made for an electrical outfit to supply direct current at ten thousand volts. It is hoped that the complete apparatus for this research will be ready for use not later than January 1st, 1925. It is believed that it will be possible to extend somewhat our knowledge of the Stark Effect and to give the results an orderly and useful interpretation.

Miss A. V. Douglas -

It is hoped that an investigation may be carried out in the search for a method of utilizing objective prism spectra for determining stellar radial velocities either by finding a suitable light filter or by some other method.

Miss M. Crowe -

Electrical conductivity of Aqueous solutions of highly deliquescent salts.

Mr. M. Home -

An investigation of the dielectric constant of certain substances at low temperatures.

Mr. F. G. Adney -

Investigation of thermo-electric effects in homogeneous conductors.

Mr. B. Priestman -

Analysis of absorption (and or) fluorescent emission spectra of gases and (if possible) of their metallic films, excited by Mercury "white" arcs, with a view to determining the "natural" atomic frequencies in metal crystals, and the energy distribution amongst the latter.

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