INDEX to VOL. XXXI.

ABNEY (W. de W.) and Lieut.-Colonel Festing on the influence of the molecular grouping in organic bodies on their absorption in the infra-red region of the spectrum, 416.

Absorption, on the influence of the molecular grouping in organic bodies on their, in the infra-red region of the spectrum (Abney and Festing), 416.

Absorption spectra of cobalt salts, on the (Russell), 51.

Actinometrical observations made in India at Mussooriee and Dehra in October and November, 1879 (Hennessey), 154.


Address of the President, 74.

Aleurone grains, on the chemical composition of (Vines), 59.

Allopecia areata, on Bacterium decalvans: an organism associated with the destruction of the hair in (Thin), 502.

Altitude, experiments on the influence of, on respiration (Mareet), 418.

Anniversary meeting, 73.

Ansted (David Thomas), 1.

Atkinson (R. W.) on the diastase of koji, 523.

Auditors elected, 37.

— report of, 73.

Azores, notes on the determination of magnetic inclination in the (Thorpe), 237.

Baber (E. C.), researches on the minute structure of the thyroid gland, 279.

Bacteria, on the absorption of pigment by (Thin), 503.

Bacterium decalvans, on (Thin), 502.

Bell (Graham) on methods of preparing selenium and other substances for photophonic experiments, 72.

Beresford-Hope (A. J. B.), admitted, 59.

Beryllium (glueinum), on the essential properties of (Nilson and Pettersson), 37.

Bilirubin, account of the artificial production of the colouring-matters of human urine from (MacMunn), 206.

Bimodular method, on an improved, of computing natural and tabular logarithms and anti-logarithms to twelve or sixteen places with very brief tables (Ellis), 381.

Bottomley (J. T.), additional note to a paper "On the thermal conductivity of water,” 300.

Broun (J. A.) on gravimeters, with special reference to the torsion-gravimeter designed by the late (Herschel), 317.

Candidates for election, list of, 485.

Capillary electroscope, phenomena of the (Gore), 295.

Carnelley (T.), preliminary note on the existence of ice and other bodies in the solid state at temperatures far above their ordinary melting points, 284.

Chinoline, on the action of sodium upon (Williams), 536.

Chlorobromiodides of silver, on the effects of heat on some (Rodwell), 291.

Climates, on the secular inequalities in terrestrial, depending on the perihelion longitude and eccentricity of the earth’s orbit (Haughton), 473.

Cobalt salts, on the absorption spectra of (Russell), 51.

Cochlea of the Ornithorhynchus planulus compared with that of ordinary mammals and of birds (Pritchard), 149.

Colour-blind, how do the, see the different colours? (Holmgren) 302.

Colouring-matters of human urine, further researches into the (MacMunn), 206.

Colours, revision of Newton’s table of (Reinold and Rücker), 524.
Conroy (Sir J.), some experiments on metallic reflection: No. II, 486.
Co-ordinates of a cubic curve in space, on the forty-eight (Spottiswoode), 301.
Council, election of, 101.
Critical point, on the (Ramsay), 194.
Crookes (W.) on heat conduction in highly rarefied air, 239.
— on the viscosity of gases at high exhaustions, 446.
— note by Professor Stokes on the reduction of his experiments on the decrement of the arc of vibration of a mica plate oscillating within a bulb containing more or less rarefied gas, 458.
Cubic curve, on the forty-eight co-ordinates of a, in space (Spottiswoode), 301.

Darwin (G. II.) on the tidal friction of a planet attended by several satellites, and on the evolution of the solar system, 322.
Definite integrals, on certain: No. VIII (Russell), 320.
Diastase of kôji, on the (Atkinson), 523.
Dielectric capacity of liquids (Hopkinson), 347.
Diffusion of liquids, influence of voltaic currents on the (Gore), 250.
Dinosaur, Polacanthus Foxii, a large undescribed, from the Wealden formation in the Isle of Wight (Hulke), 336.
Dixey (F. J.) on the ossification of the terminal phalanges of the digits, 63.
Donation fund, account of grants from the, in 1879–80, 110.

Earthquakes of July, 1880, at Manila, notes on the (Pauli), 460.
Electric currents caused by liquid diffusion and osmose (Gore), 296.
Electric distribution as manifested by that of the radicles of electrolytes, experimental researches into (Tribe), 320.
Electric osmose, experiments on (Gore), 253.
Electric resistance of thin liquid films, on the (Reinold and Rücker), 524.
Electro-magnetic induction, molecular (Hughes), 525.
Electroscope, phenomena of the capillary (Gore), 295.
Electrostatic capacity of glass, the (Hopkinson), 148.
Ellis (A. J.) on an improved bimodular method of computing natural and tabular logarithms and anti-logarithms to twelve or sixteen places with very brief tables, 381.
Ellis (A. J.) on the influence of temperature on the musical pitch of harmonium reeds, 413.
— on the potential radix as a means of calculating logarithms to any required number of decimal places, with a summary of all preceding methods chronologically arranged, 398.
Errors of adjustment, on a method of destroying the effects of slight, in experiments of changes of refrangibility due to relative motions in the line of sight (Stone), 381.
— — on a simple mode of eliminating, in delicate observations of compared spectra (Stokes), 470.
Evolution of the solar system, on the (Darwin), 322.
Ewing (J. A.) on a new seismograph 440.

Fellows deceased, 73.
— elected, 74.
Festing (Lieut.-Col.) and W. de W. Abney on the influence of the molecular grouping in organic bodies on their absorption in the infra-red region of the spectrum, 416.
Financial statement, 103–105.
Fossil wood from the Mackenzie River, note on the microscopic examination of some (Schröter), 147.
Friction of water against solid surfaces of different degrees of roughness, on the (Unwin), 54.
Fund, donation, account of grants from the, 1879–80, 110.
— — Government (4,000l.), account of appropriations from the, 111.
Fungus of ringworm, on the (Thin), 501.

Gamgee (Dr.), note on a communication made to the Royal Society by Professor Roscoe, on the absence of potassium in protozoa prepared by (Thudichum), 282.
Ganglion cells, note on the occurrence of, in the anterior roots of the cat's spinal nerves (Schäfer), 348.
Gas, note on the reduction of Mr. Crookes's experiments on the decrement of the arc of vibration of a mica plate oscillating within a bulb containing more or less rarefied, 458.
INDEX.

Gases, on the viscosity of, at high exhaustions (Crookes), 446.
Geology, notes on physical, No. VII (Haughton), 473.
Gladstone (J. H.), the refraction equivalents of carbon, hydrogen, oxygen, and nitrogen in organic compounds, 327.
— (W. E.), elected, 301.
Glass, the electrostatic capacity of (Hopkinson), 148.
Gore (G.) electric currents caused by liquid diffusion and osmose, 296.
— experiments on electric osmose, 253.
— influence of voltaic currents on the diffusion of liquids, 250.
— on the thermo-electric behaviour of aqueous solutions with platinum electrodes, 244.
— phenomena of the capillary electroscope, 295.
Government fund (4,000l.), account of appropriations from the, 111.
Government grant (1,000l.), account of the appropriation of, 110.
Grant-Duff (Rt. Hon. M. E.), elected, 360; admitted, 416.
Grants from the Donation Fund in 1879-80, account of, 110.
Gravimeters, with special reference to the torsion-gravimeter designed by the late J. Allan Broun, F.R.S. (Herschel), 317.
Gray (Asa), admitted, 141.

Hair, on Bacterium decalvans, an organism associated with the destruction of the, in Alopoeia areata (Thin), 502.
Hannay (J. B.) on the limit of the liquid state, 520.
Harmonic ratios in the spectra of gases, on (Schuster), 337.
Harmonium reeds, on the influence of temperature on the musical pitch of (Ellis), 413.
Haughton (Rev. S.), notes on physical geology: No. VII. On the secular inequalities in terrestrial climates depending on the perihelion longitude and eccentricity of the earth's orbit, 473.
Haycraft (J. B.) upon the cause of the striation of voluntary muscular tissue, 360.
Heat, action of an intermittent beam of radiant, upon gaseous matter (Tyndall), 307.
Heat, further experiments on the action of an intermittent beam of radiant, on gaseous matter. Thermometric measurements (Tyndall), 478.
Heat, on the effects of, on the chloride, bromide, and iodide of silver, and on some chlorobromiodides of silver, (Rodwell), 291.
Heat conduction in highly rarefied air, on (Crookes), 239.
Hennessey (J. B. N.) on actinometrical observations made in India at Mussoorie and Dehra in October and November, 1879, 154.
Herschel (Major J.) on a simplified form of the torsion-gravimeters of Broun and Babinet, 141.
— on gravimeters, with special reference to the torsion-gravimeter designed by the late J. Allan Broun, F.R.S., 317.
Hicks (W. M.) on toroidal functions, 504.
High power definition, microscopical researches in (Royston-Pigott), 260.
Holmgren (Frithiof), how do the colour-blind see the different colours? Introductory remarks, 302.
Hopkinson (J.), dielectric capacity of liquids, 347.
— the electrostatic capacity of glass, 143.
Hæmatin, account of the artificial production of the colouring-matters of human urine from (MacMunn), 206.
Hughes (D. E.), molecular electromagnetic induction, 525.
Huille (J. W.), Polaeanthus Forxii, a large undescribed Dinosaur from the Wealden formation in the Isle of Wight, 336.

Ice, preliminary note on the existence of, in the solid state at a temperature above its ordinary melting point, (Cornelley), 284.
Immature ovarian ovum, note to the paper on the structure of the, in the common fowl and in the rabbit (Schäfer), 282.
Induction, molecular electromagnetic (Hughes), 526.
Influence of altitude on respiration, experiments on the (Marcet), 418.
Intermittent beam of radiant heat,
action of an, upon gaseous matter (Tyndall), 307.
Intermittent beam of radiant heat, further experiments on the action of an, on gaseous matter. Thermometric measurements (Tyndall), 478.
Iron lines widened in solar spots, on the (Lockyer), 348.

Jessel (Sir G.), elected, 59; admitted, 301.

Kew Committee, report of the, 115.
Kôji, on the diastase of (Atkinson), 523.

Land-lizard, description of some remains of the gigantic, from Australia: Part III (Owen), 380.
Lassell (William), obituary notice of vii.
Limerick (Bishop of), admitted, 141.
Liquid diffusion and osmose, electric currents caused by (Gore), 296.
Liquid films, on the electrical resistance of thin (Reinold and Rücker), 524.
Liquid state, on the limit of the (Hannay), 520.
Liquids, dielectric capacity of, 347.
Lloyd (Rev. H.), obituary notice of xxi.
Lockyer (J. N.) on a sun-spot observed August 31, 1880, 72.
— on the iron lines widened in solar spots, 348.
Logarithms and anti-logarithms, on an improved bimodal method of computing natural and tabular, to twelve or sixteen places with very brief tables (Ellis), 381.
Logarithms, on the potential radix as a means of calculating (Ellis), 398.

MacMunn (C. A.), further researches into the colouring matters of human urine, with an account of their artificial production from bilirubin, and from haematin, 206.
— researches into the colouring-matters of human urine, with an account of the separation of urobilin, 28.
Magnetic inclination, note on the determination of, in the Azores (Thorpe), 237.
Mareet (W.), experiments undertaken during the summer, 1880, at Yvoire, Courmayeur, and the "Col de Géant," on the influence of altitude on respiration, 418.
Medals, presentation of the, 95.
Megalania prisca, description of some remains of, Part III (Owen), 380.
Melting-points, preliminary note on the existence of ice and other bodies in the solid state at temperatures far above their ordinary (Carnelley), 284.
Metallic reflexion, some experiments on, No. II (Conroy), 486.
Microscopical researches in high power definition (Royston-Pigott), 260.
Miller (William Hallowes), obituary notice of, ii.
Minute anatomy of the thymus, further note on the (Watney), 326.
Molecular electro-magnetic induction (Hughes), 525.
Molecular grouping in organic bodies, on the influence of the, on their absorption in the infra-red region of the spectrum (Abney and Festing), 416.
Molecular heat and volume of the rare earths and their sulphates (Nilson and Pettersson), 46.
Muscular tissue, upon the cause of the striation of voluntary (Haycraft), 360.
Musical pitch of harmonium reeds, on the influence of temperature on the (Ellis), 413.

Newton’s table of colours, revision of (Reinold and Rücker), 524.
Nilson (L. F.) and Otto Pettersson on the essential properties and chemical character of beryllium (glicinium), 37.
— on the molecular heat and volume of the rare earths and their sulphates, 46.

Obituary notices of Fellows deceased:— Ansted, David Thomas, i.
Miller, William Hallowes, ii.
Sharpey, William, x.
Stenhouse, John, xix.
Lloyd, Rev. Humphrey, xxi.
Occurrence of ganglion cells in the anterior roots of the cat’s spinal nerves, note on the (Schäfer), 348.
Officers, election of, 101.
Organic compounds, the refraction equivalents of carbon, hydrogen, oxygen, and nitrogen in (Ghadstone), 327.
Ornithorhyncus pl. typus, coelaea of the, compared with that of ordinary mammals and of birds (Pritchard), 149.
Osmose, electric currents caused by liquid diffusion and (Gore), 296.
Ossification of the terminal phalanges of the digits, on the (Dixey), 63.
Ovarian ovum in the common fowl and in the rabbit, note to the paper on the structure of the immature (Schäfer), 282.
Owen (R.), description of some remains of the gigantic land-lizard (Megalania
INDEX.

prisca, Owen) from Australia, Part III, 385.

Pauli (W. B.), notes on the earthquakes of July 1880, at Manila, 460.

Pettersson (Otto) and L. F. Nilson, on the essential properties and chemical character of beryllium (glucinium), 37. —— on the molecular heat and volume of the rare earths and their sulphates, 46.

Photophonic experiments, on methods of preparing selenium and other substances for (Bell), 72.

Physical geology, notes on, No. VII (Haughton), 473.

Pigment, on the absorption of, by bacteria (Thin), 503.

Placental of the raccoon (Watson), 325.

Planet, on the tidal friction of, attended by several satellites (Darwin), 322.

Platinum electrodes, on the thermo-electric behaviour of aqueous solutions with (Gore), 244.

Polacanthus Fossi, a large undescribed Dinosaur from the Wealden formation in the Isle of Wight (Hulke), 336.

Potential radix, on, as a means of calculating logarithms to any required number of decimal places, with a summary of all preceding methods, chronologically arranged (Ellis), 398.

Preece (W. H.) on the conversion of radiant energy into sonorous vibrations, 506.

Presentation of the medals, 95.

Pritchard (U.), the coelach of the Ornithorhynchus platypus compared with that of ordinary mammals and of birds, 149.

Procyon lotor, on the female organs and placentar of the (Watson), 325.

Protagon, note on a communication made to the Royal Society by Professor Roscoë on the absence of potassium in, prepared by Dr. Gamgee (Thudichum), 282.

Raccoon (Procyon lotor), on the female organs and placentar of the (Watson), 325.

Radiant energy, on the conversion of, into sonorous vibrations (Preece), 506.

Radiant heat, action of an intermittent beam of, upon gaseous matter (Tyn dall), 307.

—___ further experiments on the action of an intermittent beam of, on gaseous matter, thermometric measurements (Tyn dall), 478.

Ramsay (W.) on the critical point, 194.

Rare earths and their sulphates, on the molecular heat and volume of the (Nilson and Pettersson), 46.

Rarefied air, on heat conduction in highly (Crookes), 239.

Reflexion, some experiments on metallic, No. II (Conroy), 486.

Refraction equivalents, the, of carbon, hydrogen, oxygen, and nitrogen in organic compounds (Gladstone), 327.

Refrangibility, on a method of destroying the effects of slight errors of adjustment in experiments of changes of, due to relative motions in the line of sight (Stone), 381.

Reinold (A. W.) and A. W. Rücker on the electrical resistance of thin liquid films, with a revision of Newton's table of colours, 524.

Respiration, experiments on the influence of altitude on (Marcet), 418.

Reynolds (J. E.), admitted, 524.

Ringworm, on the fungus of (Thin), 501.

Roscoë (Professor), note on a communication made to the Royal Society by (Thudichum), 282.

Royston-Pigott (G. W.), microscopical researches in high power definition, 260.

Rücker (A. W.) and A. W. Reinold on the electrical resistance of thin liquid films, with a revision of Newton's table of colours, 524.

Russell (W. H. L.), on certain definite integrals, No. VIII, 380.

—___ (W. J.), on the absorption spectra of cobalt salts, 51.

Scharer (E. A.), note on the occurrence of ganglion cells in the anterior roots of the cat's spinal nerves, 948.

—___ note to the paper on the structure of the immature ovarian ovum in the common fowl and in the rabbit, 282.

Schröter (C.), note on the microscopic examination of some fossil wood from the Mackenzie River, 147.

Schuster (A.) on the harmonic ratios in the spectra of gases, 337.

Secular inequalities in terrestrial climates, on, depending on the perihelion longitude and eccentricity of the earth's orbit (Haughton), 473.

Seismograph, on a new (Ewing), 440.

Selenium, on methods of preparing, for photophonic experiments (Bell), 72.

Sharpey (William), obituary notice of, x.

Silver, on the effects of heat on the chloride, bromide, and iodide of, and
solutions with platinum electrodes, on the (Gore), 244.
Thin (G.) on \textit{Bacterium decalvans}; an organism associated with the destruction of the hair in \textit{Alopecia areata}, 502.
Thin (G.) on the absorption of pigment by bacteria, 503.
— on the \textit{Trichophyton tonsurans} (the fungus of ringworm), 501.
Thorpe (T. E.), note on the determination of magnetic inclination in the Azores, 237.
Thudichum (J. L. W.), note on a communication made to the Royal Society by Professor Roscoe, on the absence of potassium in procton prepared by Dr. Gangoe, 282.
Thymus, further note on the minute anatomy of the (Watney), 326.
Thyroid gland, researches in the minute structure of the (Buber), 279.
Tidal friction of a planet attended by several satellites (Darwin), 322.
Toroidal functions, on (Hicks), 504.
Torsion-gravimeters of Broun and Babinet, on a simplified form of the (Herschel), 141.
— designed by the late J. Allan Broun, on gravimeters with special reference to the (Herschel), 317.
Tribe (Alfred), experimental researches into electric distribution as manifested by that of the radicles of electrolytes, 320.
\textit{Trichophyton tonsurans}, on the (Thin), 501.
Trust funds, 106–10.
Tyndall (J.), action of intermittent beam of radiant heat upon gaseous matter, 307.
— further experiments on the action of an intermittent beam of radiant heat on gaseous matter; thermometric measurements, 478.

Unwin (W. C.) on the friction of water against solid surfaces of different degrees of roughness, 54.
Urine, researches into the colouring-matters of human (MacMunn), 26.
— further researches into the colouring-matters of human (MacMunn), 206.
Urobilin, account of the separation of (MacMunn), 26.
Vice-Presidents appointed, 141.
INDEX. 553

Vines (S. H.) on the chemical composition of aleurone-grains, 59.
Viscosity of gases at high exhaustions, on the (Crookes), 446.
Voltaic currents, influence of, on the diffusion of liquids (Gore), 250.

Water, additional note to a paper on the thermal conductivity of (Bottomley), 300.

Watney (Herbert), further note on the minute anatomy of the thymus, 326.
Watson (M.) on the female organs and placentaion of the racoon (Procyon lotor), 325.
Wealden formation in the Isle of Wight, a large undescribed Dinossur from the (Hulke), 336.
Williams (C. G.) on the action of sodium upon chimoline, 536.

END OF THE THIRTY-FIRST VOLUME.
LONDON:
HARRISON AND SONS, PRINTERS IN ORDINARY TO HER MAJESTY,
ST. MARTIN'S LANE.