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- 1438 Elastic scattering by hydrogen and helium
- 1447 Electrical constants of soil at radiofrequencies, effect of temperature on
- 1476 Inelastic scattering of a beam of particles by hydrogen and helium
- 1478 Photo-ionisation of molecules
- 1485 Ions of the lyotropic series
- 1516 Non-central field for potassium atom
- 1533 Neutralisation of space charge of hot metals by positive ions of potassium
- 1542 Electrical constants of soil – Variation with frequency of measuring field
- 1555 Electrical charges in layer lattice silicates in relation to ionic exchange
- 1570 Dirac's wave equation for the electron, analogy regarding operators
- 1577 Thompson scattering and the hole theory
- 1578 Electrical properties of cold worked iron carbon alloys

7. Electrons. Ions [EI]

7.1. Apparatus and Instruments

- 1606 Bemerkungen zur arbeit von Yu Chen Yang uber messungen im Millikankondensator (Notes on Yu Chen Yang's work on measurements with Millikan condenser)
- 1617 Experiments with electron counter
- 1670 Wilson cloud chamber and its applications in physics, report on
- 1674 New horizontal electron microscope
- 1685 Modified ionization chamber for study of angular distribution of ionizing particles

7.2. Electrons, Dynamics and Theory

- 1600 Dynamics of electron
- 1601 Mechanical and electrodynamical properties of electron
- 1620 Equations of electronic theory and Dirac's wave equation
- 1621 Angular momentum and virial equations of Dirac electron
- 1626 Gravitational field of the electron
- 1628 Electron spin, wave statistical theory of

- 1634 Passage of electron through matter
- 1647 Classical theory of electrons
- 1648 Cross-section of atomic oxygen-elastic collision with electrons and region F absorption
- 1658 Simple harmonic oscillator on Dirac's classical theory of radiating electrons
- 1662 Electron capture by positive ions while passing through gases
- 1666 Accelerated electrons, note on
- 1667 Hartree field of a hydrogen atom, motion of an electron in
- 1669 Photon and the electron, new classical theory of
- 1673 Self-energy of electrons

7.3. Electron Diffraction. Electron Optics

- 1615 Refractions of light by electrons
- 1623 Thin metallic films, orientation of, by electron diffraction method
- 1630 Diffraction of matter
- 1632 Electron-optical image formation with emitting wires
- 1636 Diffraction of electron through thin films of celluloid
- 1637 Diffraction of electrons analogous to Debye Scherrer X-ray diffraction
- 1652 Study of the growth of single crystal by electron diffraction method
- 1680 Electron micrographs of certain test specimens

7.4. Electron Properties – Charge – Mass, Structure

- 1607 Free paths of light excitation and their disturbances by hydrogen atoms
- 1608 Transitional groups of elements – Magnetic moments of ions
- 1609 e/m measurement with electrode valve
- 1613 Photoelectric emission from phototropic mercury compounds
- 1614 Photocathodic properties of phototropic mercury compounds
- 1618 Eigenvalue problem for electron dipole in an atomic field
- 1619, Electron cloud
- 1624 Secondary electron emission, efficiency of
- 1627 Secondary electron emission from metal faces, absorption effect in

- 1629 Determination of e/m and mass of individual charged particles in colloids
- 1631 Electron scattering of atoms, theory of
- 1633 Measurement of e/m with a triode valve
- 1638 Secondary electron emission from metals
- 1639 Electron affinity of chlorine, experimental determination of
- 1640 Ring structure of electron
- 1641 Ionic dissociation of iodides of rubidium and lithium, electron affinity of iodine
- 1642 Electronic charge from viscosity of air
- 1643 Electron pairs, angular distribution of
- 1645 Heavy electrons, theory of
- 1650 Secondary electron emissions of nickel at curie point
- 1651 Secondary electron from Ni, emission of
- 1656 Effect of space charge on electron beams
- 1657 Effect of space charge on electronic currents: Pt I: Theoretical and Pt II: Experimental
- 1663 Scattering of fast electrons by atoms
- 1668 Effect of space charge on electronic current. Pt III: Determination of e/m
- 1672 Emission of secondary electrons from nickel and molybdenum by neutral atoms of mercury and potassium
- 1677 Magnetic behaviour of free electrons
- 1679 Diffuse scattering of the Fermi electrons in monovalent metals in relation to their electrical resistivity
- 1681 Scattering of electromagnetic wave by free electron
- 1684 Magnetic polarizability of electron
- 1686 Scattering of fast electrons
- 1687 General case of l'electron configuration – New relations in internal factors
- 7.5. Ions. Ionization. Active Nitrogen**
- 1602 Atomic radius and ionization potential
- 1603 H-ions in hydrogen, free path of
- 1604 Calculation of the fall of potential in the ions and electron gas in contact with growing metals

- 1605 Active modifications of nitrogen
- 1610 Ionization potential of nitron
- 1611 Ionization tension of elements, new method of determining
- 1612 Light from hydrogen canal rays
- 1616 Reactions in ionised gases
- 1622 Positive ions of the cathode of glow discharge through gases, energy distribution among
- 1625 Ionization of mercury vapour by positive ions of mercury and potassium
- 1635 Active modification of nitrogen, a review of present theories
- 1644 Ionizing particles through photographic emulsions
- 1646 Space charge of a hot filament by fast positive ions of mercury, neutralization of
- 1649 Atomic energy values of ionized tellurium (Te II)
- 1653 Active nitrogen and N_2^+ (X) ions
- 1654 Active nitrogen under varied experimental condition, variation in after-glow brightness
- 1655 Energy imparted by active nitrogen
- 1659 Ionization in active nitrogen
- 1660 Recombination of N_2^+ (X) ions and electrons and after-glow of active nitrogen
- 1661 Radioactive recombination of N_2^+ (X') and e
- 1664 Some aspects of the modern researches on positive rays
- 1665 Active nitrogen – A new theory
- 1671 Triatomic hydrogen and Doppler effect in hydrogen positive rays
- 1675 Canal rays, optical analysis of
- 1676 Active nitrogen
- 1678 Emission of secondary electrons from nickel and molybdenum by neutral atoms of mercury and potassium
- 1688 Active nitrogen in auroras
- 1689 Dissociative recombination of N_2^+ ions and some nitrogen after-glow phenomena

7.6. Miscellaneous

- 1682 Electron transit time in negative grid oscillator

1683 Forty electron systems of molybdenum

8.0 General Physics [GP]

8.1. Aerodynamics. Hydrodynamics. Fluid-dynamics

1701 Clebsch's transformation of hydrokinetic equations

1702 Stokes theorem and hydrokinetic circulation

1703 Experiments with vortex rings

1729 Stability of rectilinear vortices of compressible fluid

1741 The physics and chemistry of colloids

1743 Tidal oscillations in canals

1759 Equations of long waves in canals of varying sections

1764 Reaction of a perfect incompressible fluid on an immersed solid in steady motion

1766 Wind channels in aerodynamics

1785 Steady motion of a viscous liquid due to translation of a tore parallel to its axis

1791 Law of capillary flow in the case of colloids

1801 Tidal waves in canals having sinuous banks

1803 Vortex motion near semi-circular boundaries and infinite straight boundaries

1814 Hydrodynamical problem: Motion due to a system of bodies

1841 Stability of vortex rings in compressible fluids

1852 Oberbeck's vortices

1858 Law of flow of airjets

1861 Discontinuous fluid motion under different thermal conditions

1863 Evidence of cybotactic group view of the interior of a liquid

1877 Need for a hydraulic research laboratory in Bengal

1920 Hydrodynamical investigation of sub-soil flow from canal beds by means of models

1922 Movement of an eddy within an area enclosed by plane boundaries

1933 Application of trilinear coordinates in problems of elasticity and hydrodynamics

1962 A hydrodynamical investigation of the subsoil from canal beds by means of models

- 1979 Potential distribution of infinite conductors and uplift pressure on dams
- 1987 Uplift pressure on weirs
- 1999 Studies on water jets
- 2002 The Rault depression in ordinary and heavy water
- 2018 The design of falls with reference to uplift pressure
- 2020 Uplift pressure and design of weirs with two sheet piles
- 2037 Motion of an infinite elliptic cylinder in fluids with constant vorticity
- 2045 Waves in canals of variable depth
- 2050 Waves in a circular canal
- 2057 On a simple derivation of stress in a moving fluid
- 2058 Motion of an infinite elliptic cylinder in fluids with constant vorticity
- 1079 Transverse waves in canals
- 2092 Permanency of configurations of rotating fluids with spheroids as surfaces of discontinuity of density
- 2096 Stability of two rows of vortices in a canal of finite width
- 2097 Internal pressure in a liquid
- 2107 Turbulent liquid motion over an infinite plate
- 2112 Turbulent motion outside a circular boundary
- 2123 Stability of equilibrium of an isolated fluid sphere
- 2124 Some non-static solution of Einstein's gravitational equation, and fluid spheres with the pressure and density as slowly varying functions of time
- 2142 Pressure under flush floor with inclined sheet piles
- 2149 Use of tidal energy for production of power
- 2158 Turbulent liquid motion outside a circular boundary
- 2189 Fluid flow through porous media
- 2191 Water jet counter
- 2199 On the application of the electrical analogy method to pressure distribution under weirs with cavities
- 2200 Solutions of some differential equations arising in problems of varying viscosity in hydrodynamics
- 2215 Fluid flow through porous media. Pt II. Porosity, permeability and average grain size of consolidated sands

- 2220 Fluid flow through porous media. Pt. III. Air permeability of consolidated sands partly saturated with water
- 2227 Motion in incompressible fluid of variable density
- 2251 Power required to operate the pneumatic tidal machine
- 2252 Adiabatic air flow
- 2275 Diffusion efficiency in compressible flow
- 2293 Radial variation of critical velocity of water in tubes of circular cross-section
- 2302 Equilibrium of fluid matter in steady differential rotation
- 2303 Nonstationary turbulent wave
- 2318 Simple nomogram for the rate of ascent of rubber balloons and improved technique with balloons and balloons materials
- 2330 Note on Hamy's theorem
- 2339 Flow of liquid from a reservoir over a phase-boundary layer theory
- 2352 The analogue of Blasius formula in subsonic compressible flow
- 2358 Extension of Hamy's theorem to rotating gaseous bodies
- 2359 Development of liquid motion due to an impulse
- 2363 Instrumental landing system for aircrafts
- 2364 Multistage turbo expanding air-liquifier
- 2369 Theory of statistical and isotropic turbulence
- 2370 On the decay of isotropic turbulence
- 2379 On the flow of air through chinks of a reed vibrator
- 2384 On Heisenberg's elementary theory of turbulence
- 2393 A speed limit for rockets
- 2398 Pressure measurement in superflow
- 2409 The decay of axisymmetric turbulence
- 2412 Invariant theory of isotropic turbulence in magneto-hydrodynamics
- 2413 Heisenberg's spectrum of turbulence
- 2419 Tidal waves in an elliptical canal of variable depth
- 2420 Tidal waves in canals having sinous banks

8.2. Apparatus and Instruments

- 1690 Barometer, a treatise on
- 1692 Compensation barometer, description of
- 1693 Indian balance called Tula, description of
- 1695 Heights by the barometer, tables for determining
- 1697 Calcutta standard barometer, error compared to Kew and Greenwich standard
- 1724 Laboratory vacuum film evaporator
- 1735 Automatic mercury pump
- 1742 Sun-synchronous pendulum, theory and applications of
- 1765 Pressure time recorder for closed vessel experiments
- 1869 New parameters
- 1874 Calibration of a Mcleod gauge in a vacuum system
- 1924 An automatic device for maintaining constant pressure
- 2007 Surface tension apparatus
- 2119 Poiseuille's apparatus, a modified method of using
- 2180 Resultant of wrenches on two given screws
- 2250 Gyroscope and its applications
- 2253 Design of a scale engraving machine
- 2262 On the theory of diffusion pump
- 2354 Speed control for the air driven ultracentrifuge
- 2356 Theory of sedimentation in ultracentrifuge and interpretation of the Schlieren photographs
- 2394 A new type of scale-of-two units
- 6291 Hygrometers

8.3. Classical Mechanics

- 1730 Free oscillations of spheroids
- 1736 Spherical waves produced by sudden explosion of a detonating gas within a spherical envelope
- 1745 Coupled vibration by means of a double pendulum
- 1746 Magnetically coupled oscillatory circuits, mechanical illustration of

- 1753 Oscillations of spheroidal drops and phenomenon of the spheroidal state
- 1760 Collision of spherical bodies of unequal diameters and densities at very low velocities
- 1787 The plane wave in a gas
- 1804 Back wave in the wave motion
- 1829 Mutual transference of torsional and pendulous oscillations
- 1844 A simplified method of calculating periodicities
- 1854 Correspondence between classical and wave mechanics
- 1878 Eigenvalues of an asymmetrical rotator
- 1891 Theory of perturbation and the eigenvalue problem of an anharmonic oscillator
- 1931 Stability of a circular vortex
- 2044 Foucault pendulum
- 2064 Vector theory of non-coplanar forces
- 2072 Development of the minor axis in a Foucault pendulum
- 2073 Trajectory of ash particles in air, determination of their size
- 2085 Levi-Civita's formula for two bodies
- 2104 Concept and determination of mass in Newtonian mechanics
- 2118 On the stability of motion in Milne's kinematical system
- 2136 Sine relation and minimum ellipticity in Foucault pendulums with copper suspensions
- 2137 Classical theory of spinning particles
- 2159 Bist-Savart law and Newton's third law of motion
- 2169 Finite strain in a rotating shaft
- 2255 Matrix treatment of a rigid body motion in complex space
- 2288 Determination of transverse wave velocities in solids
- 2297 On the equation of motion of the point particles
- 2312 Bounded linear harmonic oscillator and phase transitions of second order
- 2353 On the classical theory of particles
- 2365 Plausible speed limit for metallic projectiles
- 2376 Doppler effect in the field of a thick spherical shell
- 2385 Oscillation of a convex lens on a plane smooth surface

8.4. Elasticity

- 1691 Elasticity of Indian woods
- 1717 Young's modulus, demonstration apparatus for
- 1722 Elasticity, a new theorem in
- 1725 Stress equations of equilibrium
- 1737 Radial strain in a gravitating sphere
- 1738 Isotropic elastic solids, percussion figures in
- 1740 Contact pressures and stresses
- 1751 Longitudinal elasticity and Poisson's ratio of Indian rubber
- 1757 Propagation of waves in elastic media
- 1781 Permanent deformation produced by contact of solids
- 1793 Theory of photoelasticity
- 1794 Elastic behaviour of Indian rubber
- 1796 Plane strain and stress in rotating elliptic cylinders and discs
- 1808 Dynamical method for Young's modulus
- 1813 Stresses in circular rings under the action of isolated forces on the rim
- 1815 Fundamental equation of impact waves upon elastic surfaces
- 1816 Propagation of waves upon elastic surfaces having six parameters
- 1817 Dynamic adiabatic law relative to elastic surfaces
- 1827 Application of the new methods of the calculus of variations to problems in the theory of elasticity
- 1828 Torsion problem of the theory of elasticity
- 1842 Stresses in elastic sphere having discontinuous distribution of normal pressures on the surfaces
- 1849 The latent splitting of bars undergoing transverse vibrations
- 1853 Stresses due to a small elliptic hole or as crack on normal axis of a deep beam under constant bending moment
- 1855 Bending of a thin elastic circular plate
- 1867 Torsional vibrations of conical rods
- 1887 Stresses due to a small spherical cavity in uniform beam bent by terminal couples

- 1896 Uniqueness of solutions of problems of elasticity connected with the bending of thin plates under normal pressures
- 1897 Effect of small cavities and cracks in a cylinder twisted by torsional and shearing stresses
- 1901 Torsional oscillations in conical rod
- 1903 Young's moduli of marble at low stresses
- 1908 Two-dimensional problems of elasticity connected with plates having triangular boundaries
- 1910 Bending of certain loaded plates
- 1930 Mathematical theory of extensional vibration of a bar excited by the impact of an elastic rod
- 1932 Flexure of beams
- 1933 Application of trilinear coordinates in problems of elasticity and hydrodynamics
- 1934 Stability of a thin plate under edge thrust
- 1935 Theory of the extensional vibration of a bar excited by a longitudinal impact at fixed end
- 1942 Torsional vibrations of cylindrical rods under variable forces
- 1943 Deflection of beams
- 1946 Stresses in rotating circular disks of varying thickness
- 1949 On the bending of circular disks under non-uniform distribution of normal thrust
- 1950 Finite strain in elastic problems
- 1992 Plane strain in an infinite plate with an elliptic hole
- 1993 Simple distribution of stress in three dimensions
- 1994 Stress distribution in a heavy disc held with its plane vertical
- 1995 Transverse vibration of freely supported rectangular plates under the action of moving loads and variable forces
- 1996 Two-dimensional problem of elasticity
- 2005 Stresses in some solids of revolution due to frictional forces acting on their curved surfaces
- 2015 Flexure of beams of polygonal cross-section
- 2036 Stresses produced by couples in layer of elastic materials
- 2038 Torsion of curved rod of circular section

- 2041 Introduction to the theory of elasticity
- 2047 Symmetrical flexure of an angle iron
- 2049 Torsion of a curved rod
- 2054 Elastic properties of mother-of-pearl
- 2056 Anomaly in elastic behaviour of Indian rubber
- 2061 Stresses in thin semi-circular and semi-elliptical plates rotating about the bounding diameter
- 2074 Direct determination of stresses from the stress equations in some two-dimensional problems of elasticity. Pt I
- 2080 Electrostatic forces and the elasticity constants
- 2108 Problems of finite strain. Pt I
- 2109 Direct determination of stress from stress equations in two-dimensional problems of elasticity. Pt II
- 2110 Problem of finite strain. Pt II
- 2111 Direct determination of stress from the stress equations in two-dimensional problems of elasticity. Pt III
- 2131 Stresses due to forces and couples acting in the interior of a semi-infinite elastic solid
- 2141 Young's modulus of diamond
- 2162 Reflection and refraction of attenuated waves in semi-infinite elastic solid media
- 2166 Guest's law of elastic failure
- 2170 An anomaly in the elastic behaviour of India rubber
- 2177 Behaviour of elastic materials used as insulator for mechanical vibrations
- 2178 Stresses in an infinite strip due to an insulated couple acting at a point inside it
- 2196 Note of the bending of thin uniformly loaded plate bounded by cardioids
- 2208 Stress due to forces and couples in the interior of an infinite elastic slab placed on a rigid foundation
- 2210 Stress systems in rotating aeolotropic discs
- 2212 Uniqueness of solution problems of thin plates bent by normal pressures
- 2213 Optical method of determining Young's modulus
- 2214 Elastic wave propagation through electrolytic solutions

- 2233 Boundary value problems of circular discs under body forces. Pt I
- 2234 Boundary value problems of circular discs under body force. Pt II
- 2236 Elastic behaviour of metals near the melting point
- 2245 Consistency equations of finite strain
- 2246 Calculation of elastic constants of quartz at room temperature
- 2254 Problems of thin plates with circular holes
- 2256 Finite strain in anisotropic elastic bodies. I
- 2257 Stresses in semi-infinite plate produced by rigid punch on the boundary
- 2258 Elastic constants of quartz
- 2267 Direct determination of stresses from the stress equations in some two-dimensional problems of elasticity
- 2268 Stresses in an infinite plate due to isolated forces and couples acting near circular hole
- 2276 Elastic constants of garnets
- 2277 Elastic constants of calcite and sodium nitrate
- 2278 Elastic constants of apatite
- 2279 Bending of an equilateral plate
- 2283 Finite strain in anisotropic elastic bodies. II
- 2289 Boundary value problems of heavy circular disk held in a vertical plane
- 2294 Elastic constants of isotropic media – A new method
- 2298 Two-dimensional boundary value problems of elasticity
- 2299 Elastic constants of diamonds
- 2301 Direct determination of stresses in thin elastic plates having cavities of different shapes
- 2305 Accurate pressure gauge employing measurement of surface strain on diaphragms
- 2310 Third order elastic coefficient of crystals
- 2311 Bending of clamped rectilinear plates
- 2315 Torsional oscillations in quartz plates
- 2316 Photoelastic constants of diamond
- 2317 Anisotropy in the elastic behaviour of rocks
- 2320 Elastic constants of magnetite, pyrite and chromite

- 2342 Direct determination of stresses from stress equations in two-dimensional problems of elasticity. Pt IV. Problems of curvilinear boundaries
- 2344 Elastic behaviour of quartzite and fused quartz
- 2345 Elastic constants of ammonium chloride and ammonium bromide
- 2346 On the bending of an elliptic plate under certain distribution of load (II)
- 2357 Deformation produced by some symmetrical distribution of variable loads, on the plane boundary of a semi-infinite elastic solid
- 2362 Elastic constants of corundum
- 2374 Elastic constants of alumina
- 2375 Elastic constants of sodium tartrate and Rochelle salt
- 2377 Elastic constants of sodium thiosulphate
- 2378 Determination of elastic constants of gels by ultrasonic method
- 2386 Stresses due to nuclei of thermo-elastic strain in a thin circular plate
- 2389 New ultrasonic method for determining elastic constants
- 2390 New method of measuring the elastic constants of solids
- 2395 Optical extensometer
- 2400 Elastic constants of the heptahydrate of magnesium and zinc sulphate
- 2401 Elastic and photoelastic properties of some optical glasses
- 2402 Elastic constants of orthorhombic sulphur
- 2404 Elasticities of barium sulphate gel
- 2405 Determination of elastic constants of solid by pulse method
- 2406 Elastic constants of some cubic nitrites
- 2407 Elastic constants of corundum
- 2414 Elastic constants of alkali halide crystals

8.5. Mathematical Physics

- 1609 Analytical geometry, memoir on
- 1704 Potential of ellipsoids of variable densities
- 1706 Non-analytical potential function
- 1708 On the 'space and time', an English translation of Prof. Minkowski's address

- 1709 Expansion of an arbitrary function in series of spherical harmonies
- 1710 Present state of the theory and application of Fourier series
- 1712 From Fourier to Poincare
- 1714 Expansion of an arbitrary function in series of spherical harmonics
- 1716 **Linear distribution** corresponding to the potential function with a prescribed boundary value
- 1719 Failure of Poisson's equation and of Petrim's generalisation
- 1720 Normal derivative of the Newtonian potential due to a surface distribution having a discontinuity of the second kind
- 1721 On the potential of the heterogeneous ellipsoids and elliptic discs
- 1723 On the coefficients in the expansion of certain nodular functions
- 1726 On the horpolhode
- 1731 Potential of a double layer whose strength has a discontinuity of the second order
- 1739 Mathieu functions to physics problems
- 1748 On the failure of the analogue of Poisson's equation for the logarithmic potential due to certain plane surface distribution
- 1768 Statistical foundation of Volmer equation of state for absorbed bodies and the concentration formula
- 1797 Theory of elliptic function and higher transcendentals
- 1798 Recent researches in the theory of Fourier series
- 1800 Differential equation of dynamics
- 1802 Flexure of beam having section in the form of right-angle isosceles triangle
- 1812 Treatise on spherical harmonics and the function of Bessel and Lamé. Pt V
- 1860 Modern differential geometries
- 1876 Lorentz transformation – Restriction to linearity of
- 1886 Certain integrals and expansions involving Bessel functions
- 1907 Geometrisation of physics
- 1914 Asymptotic developments of periodic functions related to periodical physical phenomenon
- 1915 Expansion of Mathieu functions in a series of Bessel functions
- 1917 Parabolic cylindrical functions

- 1928 Ellipsoidal wave functions
- 1929 Continued fractions associated with ellipsoidal wave functions
- 1947 General solution of a class of physical problems
- 1952 Fundamental property of Hart systems of circles
- 1953 Heilbronn's class number theorem
- 1954 New type of phase advancer
- 1956 An extension of Heilbronn's class-number theorem
- 1957 Heilbronn's class number theorem (II)
- 1958 The greatest prime factor of X^2-1
- 1959 The greatest prime factor of X^2+1
- 1960 Basic theory of the general expedor phase advancer
- 1961 The apolar invariant of bilinear forms
- 1963 Elliptic function formulae and plane cubic curves
- 1964 Congruences with binomial coefficients
- 1965 The class number of binary quadratic forms
- 1966 Linear complexes related to a rational norm curve
- 1967 On the form, $\sum^n Prdq-HdZ.r = 1$
- 1968 Note on the hypothesis K of Hardy and Littlewood
- 1969 On the P-potency of G (n, r)
- 1970 Some problems of Waring's type
- 1971 Note on Dirichlets L-functions
- 1972 Some problems of K-functions with non-integral index
- 1973 Some problems of Waring's type (II)
- 1975 A theorem on sums of parts with applications to the additive theory of numbers (III)
- 1976 The theory of normals to a quadratic in hyperspace
- 1977 Homogeneous metrics
- 1980 On the P-potency of G ($P''-1, r$)
- 1982 Theorem on the addition of residue classes. Application to the number (k) in Waring's problems
- 1984 'Singular series' in Waring problems

- 1986 Vinogradov's solution of Waring's problems. Hypothesis k of Hardy and Littlewood
- 2001 On the linearity of Lorentz transformation
- 2003 On the proposed form of principle of equivalence in Lorentz transformation deduction
- 2011 Lamé's equation
- 2012 Operational representation of confluent hypergeometric functions and their integrals
- 2013 Generalisation of Lorentz transformation
- 2014 Operational representation of the parabolic cylinder functions
- 2016 Recurrence formula of Lamé functions
- 2023 Ring-singularity in Born's unitary theory. I
- 2024 Theorem on action functions in Born's field theory
- 2039 On N.R. Sen's derivation of the Lorentz transformation
- 2048 Operational representation of the parabolic cylinder functions
- 2051 Infinite integral involving Bessel functions and parabolic cylindrical function
- 2052 A note on the mixed tensor T_{μ}^{ν}
- 2053 On the differential equation of the instability of a thin layer of fluid heated from below
- 2055 Ring singularity in Born's unitary theory. II
- 2067 On the theory of a non-linear partial differential equation of the elliptic-parabolic type
- 2071 Operational representation of M-function of the confluent hypergeometric type
- 2075 A note on Riemannian tensors
- 2078 On the summability of the conjugate series of Fourier series
- 2082 Eulerian parameters and Lorentz transformation
- 2084 Solution of certain types of differential equations
- 2093 Environmental and orthoconjugate complex of a force-system
- 2094 Studies in Lorentz group
- 2114 Potential solutions near an angular point
- 2116 Potential problems concerning curved boundaries

- 2120 Proof of Mehler's and other theorem on Hermitian polynomials
 2139 Geometrical proof on a theorem on spinors
 2143 Some properties of rectilinear congruences
 2144 Existence of metric for the path space of order two
 2145 Arbitrary function in a series of eigen functions of boundary value problems
 2155 Least square solution of a polynomial of degree not exceeding the fifth
 2156 Formula for connecting self-reciprocal functions
 2161 Fractional parts of the power of numbers
 2164 On the existence of a metric for path spaces admitting the Lorentz group
 2171 Complete solution of the equation:

$$\Delta^2\phi - \frac{\delta^2\phi}{c^2 dt^2} - \kappa^2\phi = 4\pi c \text{ (hyzt)}$$

- 2181 On H-Poncin's problem
 2211 Matrix theory of screw in hyperspace
 2216 The advantage in using orthogonalised terms in a polynomial of curve fitting
 2217 Note on oscillating rotator
 2225 On σ -1 (n) and ϕ (n)
 2226 A note on Poisson distribution
 2228 On the differentiability of step function
 2243 Existence of a metric for higher path-spaces
 2260 Algebra related to particle of spin 3/2
 2272 Matrix associated with finite Abelian group
 2274 Algebra of the Dirac-matrices
 2280 Pauli's identities on Dirac algebra
 2295 On multiple Fourier series
 2300 Algebra related to elementary particles of spin 3/2
 2319 Congruence properties of $\sigma\alpha(N)$
 2321 A new theorem on the transformability of a line element into the spherically symmetric form
 2327 Lorentz transformation and its physical content

- 2329 Analysis of the Lorentz group with algebraic representation
- 2336 Equivalence of certain infinite series and the corresponding integrals
- 2338 A simple result in quadrature
- 2348 Parallel displacement and scalar product of vector
- 2350 On operational calculus
- 2380 Extension of a theorem of a Wintner
- 2382 Characteristic properties of series distributions
- 2392 Note on Weyl's inequality
- 2397 Elementary examples of δ -function
- 2399 Solution of generalized wave equations of order higher than 2
- 2403 Some solutions of the wave equations
- 2416 A note on Riesz potential
- 2417 New type of partitions associated with generalised Ferrer's graph

8.6. Miscellaneous

- 1694 Specific gravity of sea-water
- 1696 Ancient Indian weights
- 1698 On the Śulvasūtras
- 1700 Tables of metric weights and measures for use of photographic and lithographic offices
- 1715 Mechanics of balance and steelyards
- 1718 General method of conducting experiments
- 1727 Potentials of uniform and heterogeneous elliptic cylinders at an external point
- 1728 Ripple motion
- 1732 Experiments on impact
- 1733 Impact on elastic plates, theory of
- 1734 Ripples of finite amplitude
- 1754 Effect of barriers on ripple-mark
- 1758 Electro-osmotic experiments on intensity of absorption of a constituent ion by an insoluble salt
- 1769 Osmotic pressure of haemoglobin

- 1770 Osmotic pressure of haemoglobin in the absence of salts
- 1775 Methodology of studying the slow transformation of solids
- 1780 Efflux of gases – Clement and Desorme's experiment
- 1783 Study of substances having considerable internal friction
- 1806 Doppler effect in relation to atoms
- 1819 Reaction at the surfaces of the hot metallic filaments
- 1820 Petrol-water emulsions
- 1821 Absorption of gases by solids
- 1851 Zur kompressibilitat der alkalimetalle (Compressibility of alkaline metals)
- 1875 Theorem on states in kinetic equilibrium
- 1895 Nature of polish layers
- 1906 An automatic electric tower clock made in India
- 1909 Diffusion of elements in solid state
- 1912 Membrane equilibria
- 1921 Absorption velocity of gases by liquids
- 1927 Molecular screening constants
- 1981 The density and compressibility of silicane and silicoethene
- 1983 The kinetics of heterogeneous organic reactions: The reactions between benzyl chloride and solid silver nitrate
- 2006 Formation of Liesegang rings in the presence of precipitates
- 2040 Studies on some Indian vegetable oils. Pt IV. Absorption of air
- 2065 Minimum distance of approach between atoms
- 2087 Use of mercury volume-metre for the determination of specific gravity of timbers
- 2095 London-Van der Waals force between two disc-shaped particles
- 2100 London-Van der Waals forces between two disc-like particles
- 2101 Specific gravities and refractive indices of aliphatic sulphides
- 2133 Geometrical note on Van der Waal's equation
- 2172 Energy levels of an artificial bounded linear oscillator
- 2174 Artificially bounded relativistic linear oscillator
- 2241 On large-scale sample surveys

- 2247 Organisation of statistics in the post-war period
- 2263 Measurement of high rotational speed
- 2265 Ultimate vacuum attainable by a diffusion pump
- 2266 Comparative vacua produced by different oils in a diffusion pump
- 2281 On the field of point particles
- 2282 On the removal of the infinite self-energies of point particles
- 2322 On two-phase configuration of small masses
- 2323 Stationary line elements
- 2325 Specific gravity balance
- 2366 Estimation of solvation of ions in a solution from kinetic theory
- 2410 Universal length and universal momentum

8.7. Quantum Mechanics. Quantum Statistics

- 1744 Generalised quanta and the relativistic Newtonian motion, theory of
- 1767 Certain quantum theory postulates
- 1771 Light quanta in the theory of chemical reactivity, application of
- 1788 Quantum statistics
- 1883 The wave statistical theory of spinning electrons
- 1902 Quantum statistical theory of fluctuations
- 1911 Quantised motion under two centres of force
- 1919 Quantum analysis of a theorem on Poisson in classical dynamics
- 1937 Note on the transport phenomenon and quantum mechanics
- 1941 Quantization under two centres of force
- 1945 Quantum statistical theory of spontaneous fluctuations
- 2019 Domain of non-linear mechanics
- 2027 Quantum statistics and the internal constitution of the planets
- 2062 Fine structure formula of Sommerfeld and electron spin
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- 1881 A note on the special theory of relativity
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- 1894 Viscosity of fused salts: Andrade Sheppard formulæ for viscosity of liquids
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- 1936 Velocity of solid sphere through a viscous fluid
- 1939 Influence of magnetic field on the coefficient of viscosity of liquids
- 2000 Studies on some Indian vegetable oils. Pt I. Viscosity and its variation with temperature
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- 2958 Thermal structure of atmosphere over Agra
- 2961 Nocturnal radiation from the sky with Zenith distance and with time, variation in
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- 2428 Length of the pendulum at Madras, lat. $13^{\circ}4'9''N$, observations for ascertaining
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- 3167 Radio method of measuring winds in the ionosphere
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- 3205 Origin of downdraughts in a thunderstorm
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- 3226 Winds at 10 Kms and above over India and its neighbourhood
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- 3234 Origin of downdrafts in a thunderstorm

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- 2719 Comparative observations of temperature inside white painted, unpainted and black painted Stevenson screens
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- 2766 Surface convection and distribution of temperature near a heated surface
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- 2998 Temperature and pressure at different levels over Agra associated with passage of western disturbances
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- 3123 Isobars in the tropics – Some basic ideas of tropical meteorology
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- 2746 Barometrical characteristics and tendencies for local forecasting in North West India
- 2771 Seasonal weather forecasting, present position of
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- 2968 Upper air data and weather forecasts
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- 2972 Weather forecasting for aviation with special reference to local forecasts
- 2973 Weather forecasting, kinematical methods in
- 3076 Radio-reception and weather with reference to cyclonic storms in the tropics
- 3107 Regression formula for forecasting the monsoon rainfall in the subdivision of peninsular India
- 3194 Forecasting of thunderstorm at a station – Use of latent instability as a criterion
- 3198 Studies on forecasting local rainfall in India with the help of precipitation index
- 3207 Forecasting thunderstorms at Nagpur by slice method
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- 6097 Spark lines in X-ray spectra, origin of
- 6099 Soft X-rays in the case of lighter elements, origin of
- 6100 Fine structure absorption edges of metals and metalloids of Röntgen rays
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- 6115 X-ray spectra and chemical combination
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- 6185 Nomenclatures of soft X-ray lines
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- 6210 Photoelectric efficiency of ferromagnetic metals in soft X-ray region
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- 6228 Secondary K-absorption edges of iron and its compounds in solid state and solutions
- 6235 K-emission spectra of Si and C from SiC
- 6252 Luminescence of organic compounds under X-ray excitation
- 6254 Soft X-ray K-absorption and emission edge of aluminium and silicon in mica
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- 6277 Width lines of X-ray spectra
- 6284 Width of the lines of X-ray spectra, effect of width of the microphotometer slit on
- 6286 X-ray luminescence spectra of alkali halides
- 6287 X-ray luminescence spectra of thallium activated alkali halide crystals

ADDENDUM

Page S 154: The following entry has been missed. It is to be added after Entry No. 1302:

1302A BISWAS, SUSHIL CHANDRA AND S.N. BOSE. Messungen der Zersetzungsspannung in nichtwasserigen Lösungsmitteln. *Z. Phys. Chem.* **125**, 442-451. 1927.

ERRATUM

Pages S 458: (Author Index): The following entry:

BISWAS, S.C. (Also BISWAS, SUKUMAR). (EI) 1610. (RNC) 4484, 4742, 4747, 4776, 4777, 4786, 4820. (Sp) 5316.

should read as:

BISWAS, S.C. (EI) 1610. (Sp) 5316

BISWAS, SUKUMAR. (RNC) 4484, 4742, 4747, 4776, 4777, 4786, 4820.