

Resonance
journal of science education

INDEX

2008

INDIAN ACADEMY OF SCIENCES
BANGALORE



AUTHOR INDEX

- A**nil Kumar P S (4) 343 (GA)
 Athreya K B (4) 334 (GA); (6) 595 (TIO);
 (9) 796 (AIB)
- B**adami Bharati V (11) 1041 (GA)
 Balakrishnan V (9) 843 (GA)
 Bhanu K S (10) 978 (TIO)
 Bhatia (6) 583 (GA)
 Biswas Ranjit (1) 54 (GA)
- C**hakrabarty Ajay (11) 1065 (CR)
 Chakraborty Soubhik (1) 88, (4) 394 (TIO)
 Chandrasekar Raman (5) 430 (GA)
 Chandrashekar M K (10) 979 (BR)
 Chattopadhyay R (1) 81 (CR)
 Chaudhary M P (9) 882 (CR)
- D**as Abhijit (11) 1049 (GA)
 Deb B M (1) 54 (GA)
 Deshpande M N (10) 978 (TIO)
 Dilip Amritphale (5) 468 (CR)
- Elias Anil J (5) 456 (FA)
- F**urtula Boris (8) 730 (GA)
- G**adgil Sulochana (3) 218, (12) 1117 (SA)
 Govinda Raju S P (9) 836, (10) 971, (11) 1009,
 (12) 1107 (SA)
 Gutman Ivan (8) 730 (GA)
- H**arbola Manoj K (2) 134 (GA)
 Hoysall Dhruv C (4) 378 (CR)
- J**agadeesh G (8) 752 (GA)
 Jayaraman R (8) 716, (10) 898 (GA)
 Joshi Amitabh (9) 812, (10) 951 (SA)
- K**andula Sripathi (3) 245 (GA)
 Kar Sayan (4) 319 (GA)
 Karthick B (12) 1141 (GA)
 Krishnan Yamuna (2) 195 (RN)
- L**angmuir Irving (7) 693 (CI)
 Lederberg Joshua (8) 793 (CL)
 Levie Robert de (12) 1092 (AIB)

Abbreviations

AIB	–	Article-in-a-Box	GA	–	General Article
BR	–	Book Review	IA	–	Information & Announcement
CL	–	Classics	PR	–	Personal Reflections
CR	–	Classroom	RF	–	Reflections
FA	–	Feature Article	RN	–	Research News
FF	–	Face to Face	SA	–	Series Article
FT	–	Flowering Trees (Inside Back Cover)	TIO	–	Think-it-Over

INDEX

- M**ahadevan S (8) 702 (AIB)
Maheshwari Ramesh (1) 28, (6) 54,
(12) 11411 (GA)
Mallik A K (6) 561 (GA)
Mani Anna (11) 1082 (CL)
Misra Neeldhara (7) 662 (CR)
Mukunda N (2) 103 (AIB); (9) 843 (GA)
Muralidhar K (3) 272 (CR)
- N**agarajan K (6) 504 (AIB); (6) 519 (GA)
Nagendrappa G (4) 355, (10) 929 (GA)
Nair Vijay (3) 254 (FA)
Nanjundiah Vidyanand (3) 277 (BR)
Narasimhan Arunn (7) 638 (GA)
Narasimhan R (5) 490 (CR)
Natarajan Vasant (7) 655, (9) 843 (GA)
Nath Biman (8) 772, (12) 1173 (BR)
- P**abla Sarabjot Singh (4) 369 (GA)
Padmanabhan T (1) 4, (2) 108, (3) 212, (4) 312
(5) 412, (6) 510, (7) 610, (8) 706,
(9) 802, (10) 941, (11) 998,
(12) 1098 (SA)
Padmawar V R (3) 261 (CR)
Panicker Mitradas M (2) 172 (GA)
Panigrahi Prasanta K (8) 738 (GA)
Pathak Praveen (5) 475 (CR)
Planck Max (2) 198 (CL)
- R**ajeevan M (12) 1117 (SA)
Raju Namboori B (1) 12 (GA)
Rajvanshi Anil K (7) 619 (GA)
Raman Rajasekar (3) 245 (GA)
Raman V V (6) 596, (8) 778, (9) 885,
(11) 1074 (RF)
Ramani Srinivasan (5) 407 (AIB)
Ranganath G S (2) 115 (GA)
Rao Kumar (8) 738 (GA)
Rao P V S (5) 420 (GA)
Raychaudhuri A K (4) 398 (RF)
Rodrigues Veronica (10) 909 (GA)
- S**adhukhan Mainak (1) 54 (GA)
Sahu Narendra (8) 738 (GA)
Saikia Uttam (11) 1049 (GA)
Samal Debakanta (4) 343 (GA)
Sangal Rajeev (5) 487 (BR)
Sanganarayanan (12) 1188 (GA)
Sanjeeva Raj P J (7) 648 (GA)
Sanyal G S (11) 1065 (CR)
Sarkar Sahotra (3) 236, (7) 627 (GA)
Schaechter Moselio (2) 191 (CR); (8) 775 (RF)
Sebastian K L (6) 548 (GA)
Sen Parongama (4) 308 (AIB)
Sengupta Sucheta (1) 54 (GA)
Sharma Narayan (11) 1049 (GA)
Sharma Santosh K (5) 468 (CR)
Shastri Anant R (1) 35 (GA)
Shirali Shailesh A (10) 916, (11) 1027,
(12) 1156 (GA)
Simha K R Y (4) 378 (CR)
Singh Vijay A (5) 475 (CR)
Sinha Sudarson Sekhar (1) 54 (GA)
Skalski Adam (2) 181 (GA)
Sreedharan C R (11) 1020 (GA)
Srinivasan J (12) 1146 (GA)
Sudeesh K (8) 768 (CR)
Sujata Varadarajan (1) 89, (3) 292,
(7) 680 (FF)
Sur Abha (11) 993 (AIB)
Sury B (9) 866 (GA)
Swathi R S (6) 548 (GA)
- U**ppal Vinay (5) 475 (CR)
- V**ellalath Sreekumar (3) 254 (FA)
VijayRaghavan K (10) 909 (GA)
Vyasnakere P Jayanth (8) 768 (CR)
- W**aldschmidt Michel (5) 440 (GA)
Wallace Alfred Russel (3) 283 (CI)

SUBJECT INDEX

- 2**007 Chemistry Nobel Prize (6) 548 (GA)
 2007 Physics Nobel Prize (4) 343 (GA)
 2007 Physiology/Medicine Nobel Prize
 (2) 172 (GA)
- A** Little Reminiscence (4) 398 (RF)
 Abelian group (10) 916, (11) 1027 (GA)
 Acyloin condensation (4) 355 (GA)
 Addition of points on a cubic curve
 (11) 1027 (GA)
 Adsorption (7) 619 (GA)
 Aerosols (12) 1146 (GA)
 Affine mapping (12) 1156 (GA)
 AKS algorithm (9) 866 (GA)
 Albert Fert (4) 343 (GA)
Albizzia odoratissima (L.f.) Bth. (2) (FT)
 Alcoy (1) 12 (GA)
Alfred Russel Wallace – A Life by Peter Raby
 (3) 277 (BR)
 Algorithms (5) 440 (GA)
 Allele frequency (9) 812, (10) 951 (SA)
 Amide hydrolysis (10) 929 (GA)
 Ancistrocladine (6) 520 (GA)
 Angular momentum (2) 108 (SA)
 Anharmonic oscillations (1) 54 (GA)
 Anna Mani (11) 993 (AIB); (11) 1020 (GA)
 Archeo-astronomy (8) 768 (CR)
 Arithmetic cryptography (5) 440 (GA)
 Arithmetic unit design (5) 420 (GA)
 Arithmetic-geometric mean (AGM)
 (6) 583 (GA)
 Arithmetic-mean geometric -mean inequality
 (AM-GM inequality) (6) 583 (GA)
 Ascospores (1) 12 (GA)
 Associativity of addition (10) 916,
 (11) 1027 (GA)
 Asymmetric density distribution (1) 4 (SA)
 Atmospheric humidity (10) 971 (SA)
 Autocatalysis (1) 54 (GA)
 Autoxidation (3) 254 (FA)
 Azadirachtins (6) 520 (GA)
- B**ackward spin (4) 378 (CR)
 Bacterial genetics (8) 716 (GA)
 Balloons and airships (9) 836 (SA)
Barringtonia asiatica (L.) Kurz. (6) (FT)
 Behavior (10) 909 (GA)
 Behavioural pragmatics (5) 430 (GA)
 Bekenstein conjecture (5) 475 (CR)
 Bell curve (4) 334 (GA)
 Bell numbers (9) 866 (GA)
 Benign processes (11) 1041 (GA)
 Benzer (10) 909 (GA)
 Benzoin condensation (4) 355 (GA)
 Biodiversity (7) 627 (GA)
 Biofoulers (7) 648 (GA)
 Biology (3) 272 (CR)
 Birhythmicity (1) 54 (GA)
 Black body (2) 134 (GA)
 Black holes (5) 412 (SA); (5) 475 (CR)
 Black-body radiation (2) 115 (GA)
 Black-body spectrum (2) 115 (GA)
 Bombers (9) 836 (SA)
 Boundary layer (12) 1107 (SA)
 Brachistochrone problem (6) 561 (GA)
 Burnt sugarcane (1) 28 (GA)
 Butterfly theorem (10) 916 (GA)
- C**armichael number (9) 866, (11) 1027 (GA)
 Cartesian coordinates (1) 4 (SA)
 Catalysis (4) 355 (GA)
 Category (11) 1049 (GA)
 Cesaro average (4) 334 (GA)
 Chaos (12) 1117 (SA)
 Chemoselectivity (10) 929 (GA)
 Child directed speech (5) 430 (GA)
 Child language acquisition (5) 430 (GA)
 Chromosome rearrangements (1) 12 (GA)
Cis-trans test (10) 898 (GA)
Citharexylum fruticosum L. (7) (FT)
 Classical mechanics (11) 998 (SA)
 Climate models (12) 1146 (GA)
 Cloud systems (3) 218 (SA)
Clusia rosea Jacq. (5) (FT)
 Coin toss (6) 595 (TIO)
 Coin tossing (3) 261 (CR)
Colvillea racemosa Boj. (1) (FT)

INDEX

Combinations (7) 662 (CR)
Complex numbers (1) 35 (GA)
Conceptualised biology (3) 272 (CR)
Condensed benzenes (8) 730 (GA)
Conics (10) 916 (GA)
Conjugal Pairing in *Escherichia coli*
(8) 793 (CL)
Conservation biology (7) 627 (GA)
Controllability (11) 1009 (SA)
Convection (7) 638 (GA)
Correlation coefficient (10) 978 (TIO)
Cosmology (4) 319 (GA)
Cotyledons (5) 468 (CR)
Couroupita guianensis Abul. (9) (FT)
Crescentia cujete L. (8) (FT)
CRT output unit (5) 420 (GA)
Cubic curves (11) 1027 (GA)
Cyanide catalysis (4) 355 (GA)
Cyanoglycosides (4) 355 (GA)
Cyanohydrins (4) 355 (GA)
Cycloid (4) 378 (CR)

Darwin (3) 236 (GA)
David D Perkins (1) 12, 28 (GA)
Deformable media analysis (4) 319 (GA)
Design experience (5) 420 (GA)
Dimensional analysis (5) 475 (CR)
Diospyros montana Roxb. (10) 991 (FT)
Dirac sea (8) 739 (GA)
Displacement current (11) 1065 (CR)
Diversity (5) 468 (CR)
DNA (2) 195 (RN)
Double helical rigid rod (2) 195 (RN)
Drosophila melanogaster (10) 909 (GA)
Droughts (12) 1117 (SA)

Early computer (5) 420 (GA)
Earth's rotation (8) 706 (SA)
Einstein (7) 655 (GA)
Einstein's general relativity (4) 319 (GA)
El Nino (3) 218 (SA)
Electrochemical systems (12) 1133 (GA)
Electromagnetic field (2) 108 (SA)
Electromagnetic radiation (2) 115 (GA)
Electromagnetic theory (11) 1065 (CR)
Electron spin (7) 610 (SA)

Electrostatics (9) 802 (SA)
Elephants (7) 638 (GA)
Elliptic curve (11) 1027 (GA)
Embryonic stem cells (2) 172 (GA)
Endangered species (7) 627 (GA)
ENSO (3) 218 (SA)
Entropy (5) 475 (CR)
Environmental ethics (7) 627 (GA)
Equal and varying probability selection
(3) 261 (CR)
Equilibrium (11) 1009 (SA)
Erlanger programme (12) 1156 (GA)
Euclidean space (4) 334 (GA)
Euler-line (1) 35 (GA)
Event horizon (5) 475 (CR)
Evolution (9) 812 (SA)

Factorization (5) 440 (GA)
Fair toss (3) 261 (CR)
Family of curves (10) 916 (GA)
Felix Klein (12) 1156 (GA)
Fermat (6) 561 (GA)
Ferromagnetic (4) 343 (GA)
Fighter aircraft (9) 836 (SA)
Fischer (5) 456 (FA)
Fitness (3) 245 (GA); (9) 812 (SA)
Fluctuations test (8) 716 (GA)
Fluid flows (4) 319 (GA)
Fluid mechanics (9) 802 (SA)
Free falling frame (4) 312 (SA)
Functional morphology (5) 468 (CR)

GH Hardy (AIB)
Gaussian probability density (4) 334 (GA)
General relativity (4) 312 (SA)
Genetic fine structure mapping (10) 898 (GA)
Genetic manipulation of ES cells (2) 172 (GA)
Geneticist (1) 28 (GA)
Genotype frequency (9) 812, (10) 951 (SA)
Geodesics (4) 319, (6) 561 (GA)
Geometric distribution (3) 261 (CR)
Geometry (9) 844 (GA)
Geophagy (3) 245 (GA)
Giant magnetoresistance (4) 343 (GA)
Giuga's conjecture (9) 866 (GA)
Global warming (12) 1146 (GA)

Graphenes (8) 730 (GA)
 Gravitation (10) 941 (SA)
 Gravitational force (1) 4 (SA)
 Gravitational redshift (4) 312 (SA)
 Green chemistry (11) 1041 (GA)
 Green solvents (11) 1041 (GA)
 Green syntheses (11) 1041 (GA)
Grevillea robusta A. Cunn.ex.R.Br.(11) (FT)
 Group (12) 1156 (GA)
 Group law (10) 916 (GA)
 Grubbs (5) 456 (FA)
 Gusts and winds (10) 971 (SA)

H-W equilibrium (10) 951 (SA)
 Habitat (7) 627 (GA)
 Half turn (12) 1156 (GA)
 Handbook of solar radiation data for India
 (11) 1082 (CL)
 Hawking radiation (5) 475 (CR)
 Heat (2) 115 (GA)
 Heat transfer (7) 638 (GA)
 Heinz mean (6) 583 (GA)
 Heterocyclic (5) 456 (FA)
 Heterogeneous catalysis (6) 548 (GA)
 Holder mean (6) 583 (GA)
 Homogeneous coordinates (10) 916 (GA)
 HPRT (2) 172 (GA)
 Human ES cells (2) 172 (GA)
 Hydrophobicity (12) 1141 (GA)
 Hypersonic flows (8) 752, (12) 1107 (SA)

Icing (10) 971 (SA)
 Ideal population (10) 951 (SA)
 Indian monsoon (3) 218 (SA)
 Indian reference atmosphere (10) 971 (SA)
 Inequalities (6) 583 (GA)
 Information theory (5) 440 (GA)
 Integrated open-ended experiments (1) 54 (GA)
 International Standard Atmosphere
 (10) 971 (SA)
 Internet security (5) 440 (GA)
 Invariant (12) 1156 (GA)
 Irrational (2) 181 (GA)
 Ishwarone (6) 520 (GA)
 Isometry (12) 1156 (GA)
 ITCZ (3) 218 (SA)

Joshua Lederberg (8) 702 (AIB)

Kakeya problem (6) 561 (GA)
 Keystone niches (7) 648 (GA)

La Nina (3) 218 (SA)
 Laminar flow (1) 81 (CR)
 Language behavior (5) 430 (GA)
*Language Behaviour: Acquisition and
 Evolutionary History* by R Narasimhan
 (5) 487 (BR)
 Lecture (2) 191 (CR)
 Leg spin (4) 378 (CR)
 Lift and drag (11) 1009 (SA)
 Litsomentol (6) 520 (GA)
 Logarithm (6) 510 (SA)
 Logarithmic mean (6) 583 (GA)
 Lotus (12) 1141 (GA)

Mach number (12) 1107 (SA)
 Magnetic flux (2) 108 (SA)
 Magnus effect (4) 378 (CR)
 Mario R Capecchi (2) 172 (GA)
 Martin J Evans (2) 172 (GA)
 Mathematical analysis (12) 1133 (GA)
 Maxwell's equations (11) 1065 (CR)
 Measurement of viscosity (1) 81 (CR)
Measuring the World by Daniel Kehlmann
 (8) 772 (BR)
 Lederberg and the 'Cellularity' of Bacteria
 (8) 775 (RF)
 Metastable equilibrium (1) 54 (GA)
 Meteorological instrumentation (11) 1020 (GA)
 Micorrhiza (6) 541 (GA)
 Mini and micro air vehicles (9) 836 (SA)
 Molecular diagnostics (4) 369 (GA)
 Molecular switch (1) 54 (GA)
 Momentum density (2) 108 (SA)
 Monolayers (7) 619 (GA)
 Monsoon (12) 1117 (SA)
 Morley's theorem (12) 1156 (GA)
 Mouse ES cells (2) 172 (GA)
 Multicent (1) 12 (GA)
Muntinga calabura L. (3) (FT)



INDEX

- N**anoscale (2) 195 (RN)
Nanotechnology (12) 1141 (GA)
Napoleon's theorem (12) 1156 (GA)
Natural selection (3) 236 (GA)
Neurogenetics (10) 909 (GA)
Neurospora (1) 12, 28 (GA)
Newtonian gravity (1) 4 (SA)
Nine-point circle (1) 35 (GA)
Nitrile-containing natural products (4) 355 (GA)
Number theory (5) 440 (GA)
- O**ff spin (4) 378 (CR)
Olefin metathesis (5) 456 (FA)
Oliver Smithies (2) 172 (GA)
On the system and engineering design of the general purpose electronic digital computer at TIFR (5) 490 (CL)
On the tendency of varieties to depart indefinitely from the original type (3) 283 (CL)
One-one correspondence (7) 662 (CR)
Optics (12) 1098 (SA)
Oscillation (11) 998 (SA)
Ozonesonde (11) 1020 (GA)
- P**arasitism (3) 245 (GA)
Pascal's theorem (10) 916 (GA)
Pattern (2) 181 (GA)
PCR (4) 369 (GA)
Pedagogy (2) 191 (CR)
Period doubling (1) 54 (GA)
Periodic decimal expansion (2) 181 (GA)
Peter Grünberg (4) 343 (GA)
Photon (2) 115 (GA)
Phytochemicals (3) 245 (GA)
pi (2) 181 (GA)
Planck (2) 134 (GA)
Plane geometry (1) 35 (GA)
Planetary motion (8) 768 (CR)
Plant–fungus association (6) 541 (GA)
Poisuille's equation (1) 81 (CR)
Poisson equation (1) 4 (SA)
Polyacetylene (8) 739 (GA)
Polyalthic acid (6) 520 (GA)
Polycyclic aromatic hydrocarbons (8) 730 (GA)
Polyphenyls (8) 730 (GA)
Population genetics (9) 812 (SA)
Potential theory (6) 510 (SA)
Power mean (6) 583 (GA)
Predictability (12) 1117 (SA)
Prediction (12) 1117 (SA)
Pressure altitude (10) 971 (SA)
Primary and secondary keystone species (7) 648 (GA)
Prime number theorem (9) 866 (GA)
Prime numbers (5) 440 (GA)
Primes (9) 866 (GA)
Principle of equivalence (4) 312 (SA)
Probability (7) 662 (CR)
Ptolemy's theorem (1) 35 (GA)
Public key cryptosystem (5) 440 (GA)
- Q**uantum field theory (8) 739 (GA)
Quantum mechanics (3) 212 (SA); (7) 655 (GA)
Quinine (3) 254 (FA)
Quinotoxin (3) 254 (FA)
- R**ama Rao A V (7) 680 (FF)
Ramakrishnan C (1) 89 (FF)
Random permutation (10) 978 (TIO)
Randomness (7) 655 (GA)
Rangarajan S K (12) 1092 (AIB); (12) 1133 (GA)
Raychaudhuri equations (4) 319 (GA)
Rayleigh–Jeans law (2) 115 (GA)
Real-time PCR (4) 369 (GA)
Reductionist biology (3) 272 (CR)
Relativity (5) 412, (7) 610, (9) 844 (SA)
Replica plating (8) 716 (GA)
Residue class ring (5) 440 (GA)
Restoration ecology (7) 648 (GA)
Reynold's number (1) 81 (CR); (12) 1107 (SA)
Riemann integral (4) 334 (GA)
Rigid scaffolds (2) 195 (RN)
RSA (5) 440 (GA)
- S**chrock (5) 456 (FA)
Secondary metabolites (3) 245 (GA)
Seedling types (5) 468 (CR)
Self-cleaning (12) 1141 (GA)

INDEX

- Self-medication (3) 245 (GA)
Separation (12) 1107 (SA)
Shock waves (8) 752 (GA)
Sib selection (8) 716 (GA)
Side spin (4) 378 (CR)
Sine/cosine integral (4) 378 (CR)
Solenoid (2) 108 (SA)
Soliton (8) 738 (GA)
Soot (12) 1146 (GA)
Space (9) 844 (GA)
Special relativity (4) 312 (SA)
Species (11) 1049 (GA)
Species concept (11) 1049 (GA)
Species problem (11) 1049 (GA)
Spin (8) 706 (SA)
Spin value structure (4) 343 (GA)
Spiroid (4) 378 (CR)
Sriramachari S (3) 292 (FF)
S-spin (4) 378 (CR)
Stability (11) 1009 (SA)
Stable carbene (5) 456 (FA)
Standard normal probability density (4) 334 A)
Stefan's Law (2) 115 (GA)
Stefan–Boltzmann law (2) 115 (GA)
Steiner problem (6) 561 (GA)
Stereoselective synthesis (3) 254 (FA)
Subsonic flow (12) 1107 (SA)
Sulfa drugs (10) 929 (GA)
Sulfonamides (10) 929 (GA)
Supersonic flow (12) 1107 (SA)
Surface science (7) 619 (GA)
Surface science experiments (6) 548 (GA)
Symmetries of mass distribution (1) 4 (SA)
- T**
T₄rII (10) 898 (GA)
Taxicab number (11) 1027 (GA)
Taxon (11) 1049 (GA)
Teaching (2) 19, (3) 272 (CR)
Terminal velocity (4) 378 (CR)
The Mysterious Moon & India's Chandrayaan Mission by N Bhandari (12) 1173 (BR)
The Principle of Least Action (2) 198 (CL)
The Scientific Enterprise: Science : Some Definitions and Views (6) 596 (RF)
The Scientific Enterprise Ancient Science and Worldviews (8) 778 (RF)
- The Scientific Enterprise: Assumptions, Problems, and Goals in the Modern Scientific Framework (9) 885 (RF)
The Scientific Enterprise: Attitudes and Approaches in Science (11) 1074 (RF)
The Speed of the Deer Fly (7) 693 (CL)
Theoretical computer science (5) 440 (GA)
Thermal radiation (2) 115 (GA)
Thermodynamics (5) 412, (10) 941 (SA)
Thermo-regulation (7) 638 (GA)
Thiazolium salt catalysis (4) 355 (GA)
Thomas precession (8) 706 (SA)
Tiliacorine (6) 520 (GA)
Tilt rotor (9) 836 (SA)
Time (9) 844 (GA)
Time, Love, Memory: A Great Biologist and his Quest for the Origins of Behavior by Jonathan Weiner (10) 979 (BR)
Toona ciliata M. Roem.subsp.*ciliata* Bahadur var. *ciliata* Bahadur Syn.*Cedrela toona* (4) (FT)
Top spin (4) 378 (CR)
Transport economy (11) 1009 (SA)
Trapdoor oneway function (5) 440 (GA)
Tylophorine (6) 520 (GA)
- U**
Ultraviolet catastrophe (2) 115 (GA)
Undergraduate teaching (3) 272 (CR)
Unit ball (4) 334 (GA)
University (2) 191 (CR)
UV-visible spectrophotometer (1) 54 (GA)
- V**
Vectored thrust (9) 836 (SA)
Vertical take-off and landing (9) 836 (SA)
Viscosity (12) 1107 (SA)
Vitamin B₁ (4) 355 (GA)
- W**
Wake (12) 1107 (SA); (3) 236 (GA)
Waves (12) 1098 (SA)
Wedelolactone (6) 520 (GA)
Wien's Law (2) 115, 134 (GA)
- Z**
Zero point energy (2) 115 (GA)