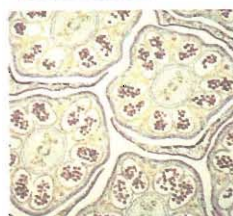


83



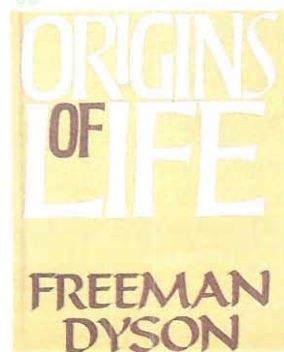
Centro

85



Centro

88



SERIES ARTICLES

8 Electrostatics in Chemistry

Basic Principles

Shridhar R Gadre and Pravin K Bhadane

GENERAL ARTICLES

20 Uncertainty Principles and Fourier Analysis

Alladi Sitaram

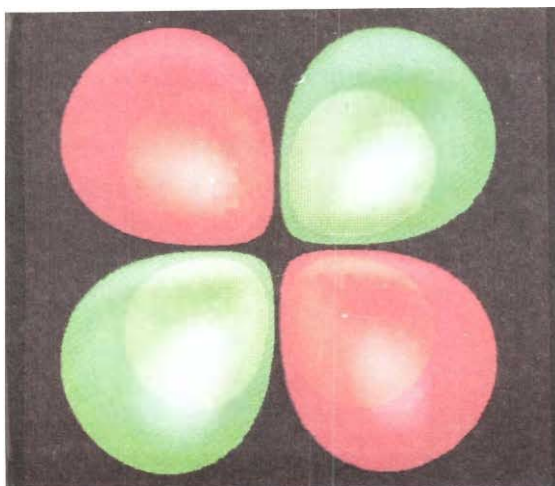
24 Schrödinger's Uncertainty Principle?

Lilies can be Painted

Rajaram Nityananda

27 Imaging Sensors: Artificial and Natural

Vikram Dhar





**91 The Fundamental Idea of
Wave Mechanics**
Erwin Schrödinger

- 37 Uncertainty in the Real World**
Fuzzy Sets
Satish Kumar

BOOK REVIEWS

- 83 Profile of a Polymath**
N Mukunda
- 85 Erwin Schrödinger, "What is Life?
The Physical Aspect of the Living Cell"**
N Mukunda
- 88 What is Life? – Reconsidered**
Raghavendra Gadagkar

Front Cover



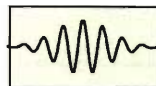
Chemical properties of molecules are often interpreted in terms of the shapes and energies of the wave functions corresponding to their highest occupied molecular orbital (HOMO) and the lowest unoccupied molecular orbital (LUMO). The cover picture shows schematic representations of the LUMOs of the fullerene C_{60} and benzene. Note that the LUMO of C_{60} has t_{1u} symmetry (triply degenerate) while the LUMO of benzene has e_{2u} symmetry (doubly degenerate). Only one orbital for each molecule is shown.

Back Cover



Erwin Rudolf Josef Alexander Schrödinger
(1887 – 1961)
(Illustration by Prema Iyer)

DEPARTMENTS



Editorial 1
Chief Editor's column
N Mukunda
Erwin Schrödinger – A
Sketch *V Singh*



Classroom 48

Teaching and Learning
Genetics with *Drosophila*
H A Ranganath
Pitfalls in Elementary
Physics – 4. Light
Arvind Kumar
The Uncertainty Principle
for Dummies
Rahul Siddharthan
The Three Colour Problem
Dinaj Surendran



Think It Over 82
Answer to 'Locate the
Electrons' *R Nityananda*



**Information and
Announcements 104**
Physics Olympiad
H C Pradhan