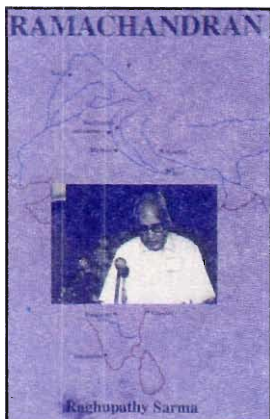


GENERAL ARTICLES

92



8 Professor G N Ramachandran's Contributions to X-ray Crystallography

K Venkatesan

16 Early Planetary Environments and the Origin of Life

Early Planetary Environments

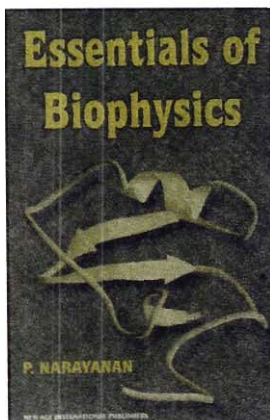
P V Sukumaran

29 Bernoulli Brothers

Jacob I and Johann I: A Pair of Giant Mathematicians

Utpal Mukhopadhyay

97



38 The Madras Triple Helix: Origins and Current Status

Manju Bansal

48 Ramachandran and his Map

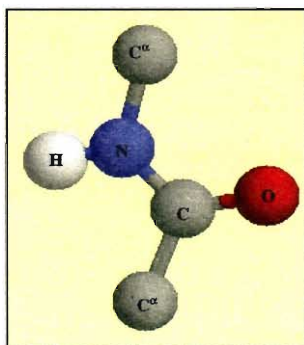
C Ramakrishnan

57 Eco-Friendly Alternative Refrigeration Systems

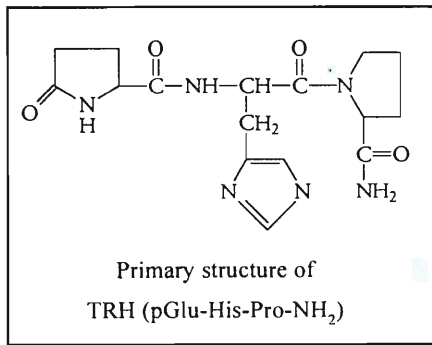
Magnetic and Thermoelectric Refrigeration

SS Verma

48



68





68 One Hundred Years of Peptide Chemistry

V V Suresh Babu

76 Molecules for Converting Sunlight into Electricity

Dye Sensitized Nanocrystalline-TiO₂ based Photovoltaics

Ravi Mosurkal

BOOK REVIEWS

92 A Biography of Gopaldasamudram Narayana Ramachandran

The Famous Indian Biophysicist

N V Joshi

96 Call of Indian Birds – An Audio Cassette

Lt. General Baljit Singh

97 Essentials of Biophysics

S K Sikdar

Front Cover



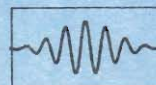
Collagen Assemblies
From: <http://www.rcsb.org/pdb/molecules> (See article on p.38)

Back Cover



G N Ramachandran
(1922 – 2001)

DEPARTMENTS



Editorial

1

Associate Editor's
Column *C S Yogananda*

Article-in-a-Box

GNR – A Tribute
D Balasubramanian
Linus Pauling on
Collagen



Think It Over

87

Solution to Tangles of
Mats and Maths of
Rectangles
*Mandar Joshi, Kshitij
Khare, Arvind Narayanan
and Sandeep Varma*



Classics

101

Introduction
Rajaram Nityananda
Coronae, Haloes and
Glories *C V Raman*

Inside Back Cover

Star Chart
Illustration: MG Kulkarni
Text: C S Yogananda

