

SCIENCE AND CULTURE

JANUARY-FEBRUARY 2008/ VOLUME 74/ NOS. 1-2

A JOURNAL OF NATURAL AND CULTURAL SCIENCES

PUBLISHED BY THE
**INDIAN SCIENCE
NEWS ASSOCIATION**

EDITORIAL BOARD

S. C. Roy
Editor-in-Chief

N. D. Paria
Parimal Chandra Sen
Associate Editors

Amalendu Bandyopadhyay
Syamal Chakraborty
N. C. Datta
Amit Krishna De
Vinod Kumar Gupta
Samarjit Kar
Sudhendu Mandal

Members of the Editorial Board

COLLABORATORS

S. Aditya

Ananta Krishnan	A. K. Hati
Amiya Bagchi	S. Kailas
A. K. Barua	Abhijit Lahiri
Biman Basu	Balaram Majumdar
B. B. Biswas	Biswapati Mukherjee
Indrani Bose	S. P. Mukherjee
Sankar Chakravorty	G. Prathap
R. N. Chatterjee	R. R. Rao
D. P. Chattopadhyay	P. K. Ray
J. K. Datta Gupta	Prabir Roy
Dibyendu Ganguli	S. P. Sengupta
Irfan Habib	

EDITORIAL

Natural Products Chemistry Around the World
Tribute to Professor (Mrs.) Asima Chatterjee
— Biswapati Mukherjee ... 1

ARTICLES

Mrs. Asima Chatterjee
— Julie Banerji ... 3

Natural Products Research – A view through
the Looking Glass
— Geoffrey A. Cordell ... 11

Remembrance : Memories of Professor Asima
Chatterjee's Contemporary Indian Scientists
— P. Balaram ... 17

The Signatures of Energy-Transducing Organic
Molecules in Meteorites
— Shibnath Ghosal ... 22

Marchantiophyta : A Good Source of Biologically
Active Substances
— Yoshinori Asakawa ... 31

Recent Advances in Marine Natural Products
Chemistry
— Mary J. Garson ... 51

Novel Pseudoguaianolides from *Parthenium
hysterophorus*: NMR Detective Investigation
— Biswanath Das and Ratna Das ... 55

Infestation of Tea by the Shot-hole Borer, *Xyleborus
Fornicatus* Eichh. (Coleoptera: Scolytidae): Ovicidal
Effect of Caffeine
— W. Subodhi Karunaratne, Vijaya Kumar,
N. Savitri Kumar and Nela K. Weerasekera ... 59

A Quarter of Century Study on Sumatran Plants;
the Dream and the Reality
— Dayar Arbain ... 65

Contd. next page.



Indian Science News Association

President

Prof. B. B. Biswas

Vice-Presidents

Professor Arabinda Kumar Das

Dr. Alok Krishna Gupta

Professor Sankar Kumar Pal

Professor P. K. Ray

Professor M. S. Swaminathan

Professor S. K. Talapatra

Hony. Secretaries

Professor Naresh Chandra Datta

Professor Sudhendu Mandal

Hony. Treasurer

Professor Amalendu Bandyopadhyay

Council Members

Professor (Mrs.) Julie Banerji

Shri Manas Pratim Das

Dr. Satya Brata Dasgupta

Dr. K. P. Dhara

Dr. Dibyendu Ganguli

Professor Somnath Ghosh

Dr. Rajesh Kochar

Dr. H. S. Maiti

Dr. Balaram Majumder

Dr. Sisir Kumar Majumdar

Professor Biswapati Mukherjee

Professor Debasish Mukherjee

Professor Siddhartha Ray

Dr. Amal Roy Chowdhury

Dr. Jnanabrata Sil

Members of the Editorial Board are also members of the Council

Indole Alkaloid Biosynthesis: The Pathways
Leading to Ajmalicine and Ajmaline

— *Leif Barleben and Joachim Stöckigt* ... 71

RESEARCH COMMUNICATION

Computer Aided Design/Computer Aided
Manufacturing Technology in Textile Industry –
An Overview

— *Ashis Mitra* ... 77

New Records of Host Plants and Natural Enemies
of Some Species of *Aphis L.* (Aphididae : Homoptera)
from Orissa, India

— *M. Basu and B. Patro* ... 81

The Study of Morphogenetic Responses in Some
Important Medicinal and Aromatic Plants in Plant
Tissue Culture (*Aegle marmelos*, *Plumbago*
zeylanica and *Vanilla planifolia*)

— *J. Vennel Raj and R Basavaraju* ... 83

The Occurrence of Mite *Brevipalpus essigi* Baker
(Acari: Tenuipalpidae) on Orchid *Dendrobium*
nobile in Sikkim, India

— *V. S. Nagrare* ... 87

ACKNOWLEDGEMENTS ... 88

REPORT

Nobel Prize for Science : 2007

Chemistry

Physics

Physiology or Medicine

Economics

— *Samarjit Kar* ... 89

NOTES AND NEWS ... 95

Cover : The plants (1) *Atropa belladonna* (atropine), (2) *Papaver somniferum* (morphine), (3) *Rauwolfia serpentina* (reserpine), (4) *Cinchona officinalis* (quinine) created history in natural products chemistry research for providing useful drugs. The wonderful book, *Magic and Medicine of Plants*, Editors James Dwyer and David Rattray, published by The Reader's Digest Association Inc., N.Y., 1986, was consulted in drawing up this independent collage.

*Members of the Advisory Committee
of
Indian Science News Association*

Professor Padmanabham Balaram	Bangalore
Professor D. Balasubramanian	Hyderabad
Professor B. B. Baliga	Mangalore
Professor Asis Kumar Banerjee	Kolkata
Professor Basudeb Barman	Kolkata
Professor A. K. Barua	Kolkata
Professor Ashok Nath Basu	Kolkata
Dr. M. K. Bhan	New Delhi
Professor Jagadish Chandra Bhattacharyya	Bangalore
Professor Animesh Chakravorty	Kolkata
Professor B. P. Chatterjee	Kolkata
Dr. Purnendu Chatterjee	Kolkata
Professor Asis Datta	New Delhi
Professor S. N. Ghosh	Kolkata
Dr. H. K. Gupta	Hyderabad
Dr. K. Kasturirangan	Bangalore
Dr. R. A. Mashelkar	New Delhi
Dr. Govardhan Mehta	Bangalore
Professor M. G. K. Menon	New Delhi
Dr. S. C. Pakrashi	Kolkata
Professor Yash Pal	New Delhi
Dr. T. Ramasami	New Delhi
Dr. Anuj Sinha	New Delhi
Dr. Bikash Sinha	Kolkata

**SCIENCE & CULTURE
ADVERTISEMENT**

RATE

	Single Insertion	
	(Full Page)	(Half Page)
COVER (Back)	Rs. 10,000/-	×
COVER (Front Inside)	Rs. 7,000/-	×
COVER (Back Inside)	Rs. 7,000/-	×
OTHER PAGES	Rs. 5,000/-	Rs. 3,000/-

N.B. : For colour or any other special types of advertisement—rates may be negotiated.

A discount of 20% for insertions in all issues in a year and of 15% for atleast three insertions will be allowed.

TO OUR READERS

Your appreciation of the journal makes us bold to suppose that some of your friends would also like to read **SCIENCE & CULTURE**, the premier scientific monthly of India devoted to the publication of the progress in pure and applied sciences. The Indian Science News Association has been conducting the journal for over 73 years with the editorial co-operation of eminent scientists of India with the object of promoting and diffusing knowledge laying special stress on the progress of scientific studies here and abroad, and advocating methodical application of science to problems of national regeneration.

Editorial correspondence should be sent to the Editor, *Science and Culture*, 92, Acharya Prafulla Chandra Road, Kolkata : 700 009. Manuscripts prepared in accordance with the Instruction to Contributors should be submitted in **Triplicate** and will not be returned unless accompanied with return postage.

Correspondence relating to subscription, advertisement and other matters should be addressed to the **Hony. Secretary, Indian Science News Association**, 92, Acharya Prafulla Chandra Road, Kolkata : 700 009, Phone : 2350-2224. E-mail : scie2224@dataone.in, Website : www.scienceandculture-isna.org

MEMBERSHIP FEE

Life Member	:	Rs. 1500.00
Ordinary Member (without journal)		Rs. 100.00
Ordinary Member (with journal)		Rs. 400.00

ANNUAL SUBSCRIPTION

Inland (Institution)	Rs. 1000.00
Foreign	U.S.\$ 125.00
Inland (Individual)	Rs. 400.00
Foreign (Individual)	US.\$ 60.00
Single Copy (Inland)	Rs. 80.00
Single Copy (Foreign)	\$ 20.00