# SCIENCE AND CULTURE

SEPTEMBER-OCTOBER 2020/VOLUME 86/NO. 9-10

#### A JOURNAL OF NATURAL AND CULTURAL SCIENCES

PUBLISHED BY THE		EDITORIAL		
<b>INDIAN SCIENCE</b>		A Tribute to Satyajit Ray		
NEWSASSOCIATION		— <i>S. C. Roy</i>		269
EDITORIAL BOARD		LETTERS TO THE EDITOR		271
Professor S. C. Roy Editor-in-Chief				
Shri Biman Basu		ARTICLE		
Dr. Satyabrata Chakrabarti		Satyajit Ray Birth Centenary : A Blueprint		
Professor Syamal Chakrabarti		for Action		
Professor Mana		— Amitabha Bhattacharya		273
Professor Barun K	·	Satyajit, His Family and Rabindranath:		
Dr. Sabyasachi Chattopadhyay		An Enduring Relation		
Dr. Amit Krishna De		— Prasadranjan Ray		276
Professor Sudhendu Mandal		Satyajit Ray: The Teacher		
Professor Vasa	ant Natarajan	— Rochona Majumdar		285
COLLABORATORS		Communication in a Connected World:		
Amiya Kumar Bagchi	Irfan Habib (Delhi)	Challenges and Opportunities		
(Kolkata)	A. K. Hati (Kolkata)	- V. S. Ramamurthy and		
D. Balasubramanian	Mridul Hazarika	D. K. Srivastava		292
(Hyderabad)	(Guwahati)			
Indrani Bose (Kolkata)	S. Kailas (Mumbai)	A Tale of Three Science Academies of India		200
S Chandrasekhar	Punam Kakkar	— Rajinder Singh		299
(Hyderabad)	(Lucknow)			
D. P. Chattopadhyaya ( <i>Kolkata</i> )	Abhijit Lahiri ( <i>Delhi</i> )	OPINION		
Samit Chattopadhyaya	A. N. Lahiri Majumder (Kolkata)	Life in the Time of COVID:		
(Kolkata)	B. K. Pattnaik ( <i>Kanpur</i> )	Spread of an Epidemic, Rumours, Myths		
Mihir Kanti Choudhuri	V. Ravichandran	and Public Opinion — Sabyasachi Chatterjee		309
(Tejpur)	(Kolkata)	— Subyasachi Chanerjee	•••	309
Mrinal K. Dewanjee	Ashoke Sen (Allahabad)			
(U.S.A.)	Rajinder Singh(Germany)	FOCUS		
R. Gadagkar (Bangalore)	Srinivasan Srikanthan	A Cool Idea — Burton Bollag		312
Ajoy Ghatak (Delhi)	(Chennai)	— Burton Bollag		312



Indian Science News Association

MEMBERS OF THE COUNCIL	A TRAVELLER'S JOURNAL	
President	Safari through South Africa - IV	
Dr. K. Muraleedharan	— Antonia Hoogewerf	 314
Vice-Presidents	RESEARCH COMMUNICATION	
Professor S. K. Talapatra		
Professor Sanghamitra Bandyopadhyay	Alleviation of Fluoride-Mediated Toxicity	
Professor Biswapati Mukherjee	via Seed Priming with Calcium Oxide in <i>Oryza</i> sativa L. cv. Khitish	
Professor (Mrs.) Julie Banerji	— Ankir Singh, Aditya Banerjee,	
Professor Bikas. K. Chakrabarti	Aryadeep Roychoudhury	 31
Honorary Secretaries		
Professor Sudhendu Mandal	BOOK REVIEW	
Professor Manas Chakrabarty		
	Pathology of Modern Indian Science :	
Honorary Treasurer	Genesis of its eco-System	~~~
Professor Barun Kumar Chatterjee	– S. C. Roy	 32
Members	NOTES AND NEWS	32
Shri Biman Basu	NOTES AND NEWS	 32
Shri Prasanta K. Bose		
Dr. Manoj Kumar Chakrabarti	OBITUARY	
Dr. Satyabrata Chakrabarti	Dr. Maharaj Kishan Bhan (1947 - 2020)	
Prof. Syamal Chakrabarti	– Kaushik Bharati	 33
Professor Dhrubajyoti Chattopadhyay		
Dr. Sabyasachi Chattopadhyay		
Dr. Manas Pratim Das		
Dr. Amit Krishna De		
Shri Pathik Guha		
Professor Dipak Kumar Kar		
Dr. Sisir Kumar Majumdar		
Dr. Balaram Majumder		
Dr. Hemanta Kumar Majumder		
Professor Partha P. Majumder		
Dr. Shankarashis Mukherjee		
Professor Vasant Natarajan		
Professor Sajal Ray		
Professor S. C. Roy		
Professor Devdatta Sinha		
-		

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

Professor Padmanabham Balaram	Bangalore	
Professor D. Balasubramanian	Hyderabad	
Professor Basudeb Barman	Kolkata	
Professor A. K. Barua	Kolkata	
Professor Ashok Nath Basu	Kolkata	
Professor Samir Kumar Brahmachari	New Delhi	
Professor (Mrs.) Sonali Chakravarti Banerjee	Kolkata	
Dr. Purnendu Chatterjee	Kolkata	
Professor Basab Chaudhuri	Kolkata	
Professor Suranjan Das	Kolkata	
Professor Asis Datta	New Delhi	
Professor P. N. Ghosh	Kolkata	
Dr. N. K. Ganguly	New Delhi	
Dr. H. K. Gupta	Hyderabad	
Dr. K. Kasturirangan	Bangalore	
Dr. R. A. Mashelkar	New Delhi	
Professor Goverdhan Mehta	Hyderabad	
Dr. T. Ramasami	New Delhi	
Dr. T. V. Venkateswaran	New Delhi	
Dr. Bikash Chandra Sinha	Kolkata	
Professor M. S. Swaminathan	Chennai	

## SCIENCE & CULTURE ADVERTISEMENT PATE

KAIE			
	Single Insertion		
	(Full Page)	(Half Page)	
COVER (Back)	Rs. 20,000/-	×	
COVER (Front Inside)	Rs. 15,000/-	×	
COVER (Back Inside)	Rs. 15,000/-	×	
OTHER PAGES	Rs. 10,000/-	×	
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 AND CULTURE, the premier scientific bi-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 85 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-in-Chief, *Science and Culture*, 92, Acharya Prafulla Chandra Road, Kolkata : 700 009. Manuscripts prepared in accordance with the Instruction to Authors 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 **Honorary 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 (India)	Rs.5,0	)00.00*+
Life Member (Foreign)	\$	600.00
Ordinary Member (without journal)	Rs.	100.00
Ordinary Member (with journal)	Rs.	500.00

### ANNUAL SUBSCRIPTION

Inland (Institution)	Rs. 2,500.00
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

\* Entitles to receive *Science and Culture* for 15 years + Rs. 1000/- towards the cost of delivery of the journal for 5 years

## **Past Special Issues**

- Glass and Ceramic Research in India (May-June 2005)
- Water Resources in South Asia : An Assessment of Climate Change Associated Vulnerabilities and Coping Mechanisms (July-August 2005)
- Unconventional Applications of Physics (March-April 2007)
- Current Trends in Leishmania Research (May-June 2007)
- Forensic Science in Criminal Justice Delivery System (November-December 2007)
- Natural Products Chemistry (January-February 2008)
- Mysteries of the Earth's Interior (May-June 2008)
- Radio Science (September-October 2008)
- Scientific Legacy of Acharya J. C. Bose The Doyen of Indian Science (November-December 2008)
- Origin of Species–A Revolutionary Argument (March-April 2009)
- Geomagnetism and Aeronomy (July-August 2009)
- Cholera : A Disease that Eludes Technological Advance (May-June 2010)
- Fifteen years of Econophysics Research (September-October 2010)
- Emerging Trends in Genomics : Applications in Health and Disease (January-February 2011)
- Recent Trends in Tea Research (September-October 2011)
- Impact of CSIR-NEIST in the North East Region (November-December 2011)
- New Science of Synthetic and Systems Biology (March-April 2012)
- A Journey from Plant Physiology to Plant Biology (May-June 2012)
- CSIR-CSIO : Instrumental in Scientific-eco System Measurements (September-October 2012)
- CSIR-NML on the March (November-December 2012)
- Atomic Energy in National Development (January-February 2013)
- Communicating Science Through Science Museums, Science Centres and Planetaria towards Developing a Culture of Science (November-December 2013)
- Nuclear Chemistry Research : Past, Present and Future (September-October 2015)
- International Year of Light 2015 (November-December 2015)
- J. C. Bose, Bose Institute and Scientific Legacy (November-December 2017)
- **Cooperative Learning and Social Games : Kolkata Restaurant Problems** (January-February 2018)
- Meghnad Saha and the World of Plasmas (November-December 2018)
- How Bose Statistics Changed Our Understanding of Matter (January-February 2019)
- A Quantum Jump in Computation (May-June 2019)
- Climate Crisis in India : Issues and Concerns (January-February 2020)