

CURRENT SCIENCE

Volume 114 Number 6

25 March 2018

1148 **In this issue**

GUEST EDITORIAL

1149 **Engine**

Sushanta Dattagupta

CORRESPONDENCE

- 1151 **Biofuels for energy security**, K. Lenin Babu ■ 1151 **CWUR Subject Rankings 2017**, Gangan Prathap ■ 1153 **Emerging trend of pharmacoeconomics and health outcomes research in India**, B. S. Suhas, D. Pavan, K. Gaurav, P. D. Ahiawodzi and V. S. Ligade

NEWS

- 1155 **Representation of physical processes in weather and climate models**, P. Mukhopadhyay and Ravi S. Nanjundiah ■ 1156 **Intrinsically disordered proteins**, Ipsita Herlekar ■ 1157 **Science Last Fortnight**

SCIENTIFIC CORRESPONDENCE

- 1161 **Real-time monitoring of black carbon aerosols in the glaciated valley of northwestern Indian Himalaya**, Pyar Singh Negi ■ 1163 **Effectiveness of amino acids for carbon storage and utilization applications**, Pinnelli S. R. Prasad, Burla Sai Kiran and Kalachand Sain ■ 1165 **Low phytic acid peanut: a potential tool to overcome mineral malnutrition in humans**, B. C. Ajay, D. Kambiranda, S. K. Bera, Narendra Kumar, K. Gangadhar, R. Abdul Fiyaz and K. T. Ramya

GENERAL ARTICLES

- 1167 **Assessing the quality of higher education institutions in India: an alternative framework**
Pranab Mukhopadhyay, Murari P. Tapaswi, P. K. Sudarsan and Kavya Sudarsan
- 1174 **Collaboration patterns of Indian scientists in organic chemistry**
K. C. Garg, S. Kumar and Bebi

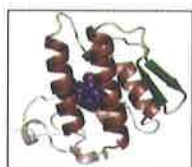
REVIEW ARTICLES

- 1181 **Policy as a driver of economic growth: historical evidence from the Indian pharmaceutical industry**
Nisha Chandran and Samir K. Brahmachari
- 1194 **Breeding of new ornamental varieties: Rose**
S. K. Datta

RESEARCH ARTICLES

- 1207 **A comparative study to elucidate the inhibitory mechanism of a 6-mer fragment of amyloid-beta 42 peptide as a potential therapeutic in Alzheimer's disease: insights from molecular dynamics simulations**
Mary Dutta and Venkata Satish Kumar Mattaparathi





- 1214 ***In vitro* and *in silico* validation of anti-cobra venom activity and identification of lead molecules in *Aegle marmelos* (L.) Correa**
N. C. Nisha, S. Sreekumar, D. A. Evans and C. K. Biju
- 1222 **Antioxidant and nutritional potential of some underutilized leafy vegetables consumed by tribals of Jharkhand, India**
Srivastava, R. S. Pan and B. P. Bhatt
- 1234 **Enhanced oil accumulation in tobacco (*Nicotiana tabacum* L.) leaves by ectopic overexpression of *VgDGAT1a* for renewable production of biofuels**
Chang-Yong Gao, Xue Mao, Hong-Qin Shang, Fang Li and Run-Zhi Li
- 1241 **A simplified soil nutrient information system: study from the North East Region of India**
Shelton Padua, T. Chattopadhyay, S. Bandyopadhyay, S. Ramchandran, R. K. Jena, P. Ray, P. Deb Roy, U. Baruah, K. D. Sah, S. K. Singh and S. K. Ray
- 1250 **Effects of root properties and branching characteristics on soil reinforcement in the Jinyun Mountain, China**
Shuangshuang Song, Yunqi Wang, Baoping Sun and Yunpeng Li
- 1261 **Isolation and selection of cellulose-degrading microorganisms for utilization along with earthworms in efficient conversion of municipality waste mix to compost**
Sanasam Shantibala Devi, Nongthombam Grihalakshmi Devi, Mohan Chandra Kalita and Narayan Chandra Talukdar
- 1275 **Socio-economic costing of road traffic accidents: evidence from Nagpur city, Maharashtra, India**
Bhaswati Bora, Vishrut Landge and Bahuguna Dalai
- 1284 **Impact of tropical volcanic eruptions on Hadley circulation using a high-resolution AGCM**
Muhammad Mubashar Dogar

RESEARCH COMMUNICATIONS

- 1295 **Electron density, interaction energy and hydrogen-bond radius of C-H...O interaction**
R. Parajuli
- 1299 **A critical analysis of the 'UGC-approved list of journals'**
Bhushan Patwardhan, Shubhada Nagarkar, Shridhar R. Gadre, Subhash C. Lakhota, Vishwa Mohan Katoch and David Moher
- 1304 **Projection of climate change scenarios in the Kabul River Basin, Afghanistan**
Massouda Sidiqi, Sangam Shrestha and Sarawut Ninsawat
- 1311 **Influence of open and polyhouse conditions on soil carbon dioxide emission from *Amaranthus* plots with different nutrient management practices under changing climate scenario**
U. Surendran, Aswathy K. Vijayan, V. Bujair and E. J. Joseph
- 1318 **Odd-even traffic rule implementation during winter 2016 in Delhi did not reduce traffic emissions of VOCs, carbon dioxide, methane and carbon monoxide**
B. P. Chandra, V. Sinha, H. Hakkim, A. Kumar, H. Pawar, A. K. Mishra, G. Sharma, Pallavi, S. Garg, Sachin D. Ghude, D. M. Chate, Prakash Pithani, Rachana Kulkarni, R. K. Jenamani and M. Rajeevan
- 1325 **Effective weed control strategy in tomato kitchen gardens – herbicides, mulching or manual weeding**
Daud Ahmad Awan, Faheem Ahmad and Sharmin Ashraf

- 1330 **Divergence studies of white willow (*Salix alba* L.) germplasm**
P. A. Paray and S. A. Gangoo
- 1333 **Estimating net primary productivity of croplands in Indo-Gangetic Plains using GOME-2 sun-induced fluorescence and MODIS NDVI**
N. R. Patel, Hitendra Padalia, R. Devadas, A. Huete, A. Senthil Kumar and Y. V. N. Krishna Murthy
- 1338 **Detection of coastal landforms in a deltaic area using a multi-scale object-based classification method**
Tapas R. Martha, A. Mohan Vamsee, Vikas Tripathi and K. Vinod Kumar
- 1346 **Occupancy time-based passenger car equivalents at unsignalized intersections in India**
Mithun Mohan and Satish Chandra

BOOK REVIEWS

- 1353 **Finite Elements: Theory and Algorithms.** Sashikumaar Ganesan and Lutz Tobiska (eds); *reviewed by* T. Gudi ■ **1353 Annual Review of Public Health, Vol. 38.** Jonathan E. Fielding, Ross C. Brownson and Lawrence W. Green (eds); *reviewed by* Mario Vaz ■ **1355 Figs of Eastern Ghats, India.** J. V. Sudhakar, N. Chandra Mohan Reddy and G. V. S. Murthy; *reviewed by* P. S. Udayan

PERSONAL NEWS

- 1356 **Tiruvallam Natarajan Krishnamurti (1932–2018),** M. Rajeevan and J. Srinivasan ■ **1357 Shanti Lal Kayastha (1924–2018),** R. B. Singh

HISTORICAL NOTES

- 1358 **Medical stores in 1865, pharmacist training and pharmacopoeias in India until the launch of the *Indian Pharmacopoeia* in 1955**
Ramya Raman and Anantanarayanan Raman
-



- ◀ COVER. Black carbon monitoring station at Chirbasa, Gangotri Glacier Valley. See page 1161.

Indexed in CURRENT CONTENTS/GEOBASE/CHEMICAL ABSTRACTS/IndMED/SCOPUS/
WEB OF SCIENCE