

CURRENT SCIENCE

Volume 110 Number 2

25 January 2016

126 In this issue

GUEST EDITORIAL

- 127 Achieving the sustainable development goals**
M. S. Swaminathan and P. C. Kesavan

CORRESPONDENCE

- 129 Some ailments in physics education in the country**, Bhupati Chakrabarti ■ **129 Regulated animal dissections in Indian curricula as a measure to control invasive species**, Sameer Padhye and Siddharth Kulkarni ■ **130 S&T R&D in Indian academia**, E. C. Subbarao ■ **131 Knowledge dissemination in earth system science in India**, Hari Warrior ■ **132 Contemporary teaching and research**, Himangshu Dutta and Angshu Dutta; *Response by Basab Chaudhuri*

IN CONVERSATION

- 134 Raimond Winslow**, Rajashree Ramaswamy and Swetha Gopal

NEWS

- 137 Mycorrhizal integration across continents and scales**, D. Sharma and C. Manoharachary ■ **138 Earthquake hazard**, S. K. Wanchoo and Supriyo Mitra ■ **139 Climate change adaptation in the north eastern region of India: issues and options**, Prasanna K. Samal, K. S. Kanwal, Kireet Kumar Pande and P. P. Dhyan

COMMENTARY

- 141 The Indo-US nuclear deal – a decade after**, V. S. Ramamurthy ■ **143 Essential oils of traditionally used aromatic plants as green shelf-life enhancers for herbal raw materials from microbial contamination and oxidative deterioration**, Abhishek Kumar Dwivedy, Akash Kedia, Manoj Kumar and N. K. Dubey

SCIENTIFIC CORRESPONDENCE

- 146 Efficient PCR-based epitope gene tagging in *Schizosaccharomyces pombe***, Poonam Shukla, Balveer Singh, Ashok Saini, Jyotsna, Swati Halder and Jagmohan Singh ■ **148 A new population of *Santalum album* L. (sandalwood) from Agali Forest Range, Kerala, India**, K. A. Sreejith, V. B. Sreekumar, T. K. Nirmesh and R. Suganthasakthivel ■ **150 Thermal anomaly from NOAA data for the Nepal earthquake**, S. S. Baral, K. Sharma, A. K. Saraf, J. Das, G. Singh, S. Borgohain and E. Kar ■ **153 Delineation of buried channels of Bharathappuzha by single-channel shallow seismic survey**, N. M. Shareef, Raja Mukhopadhyay, A. Sivasamy, J. M. Neelakantarama, P. Durga Prasad and Saju Varghese ■ **157 Sleeping site selection in wild stump-tailed macaques**, Zothansiana and G. S. Solanki

GENERAL ARTICLES

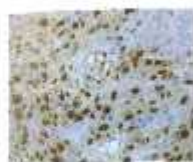
- 159 The AICTE review: an opportunity for engineering education reform**
Milind Sohoni
- 167 India's intellectual property-based biomedical start-ups**
Gayatri Saberwal

REVIEW ARTICLE

- 172 Association between serum tumour necrosis factor- α concentrations and chronic obstructive pulmonary disease**
Xiao-feng Xiong, Jia Wei, Yi-hua Lin and De-yun Cheng

RESEARCH ARTICLES

- 180 Behaviour of biomass multicomponent ashes as adsorbents**
Sunil K. Deokar, Sachin A. Mandavgane and Bhaskar D. Kulkarni



- 187 Potent antitumour activity of (-)-epigallocatechin gallate: indications from *in vitro*, *in vivo* and *in silico* studies**
Samarendra Narayanan, Balaji Ramchandran, Satheesh Rajendiran, Sarhani Chandra, Atul Tiwari, Ravisankar Rajarethinam and Ramesh Kureeckal Vasudev



- 196 Zinc solubilizing bacterial isolates from the agricultural fields of Coimbatore, Tamil Nadu, India**
K. Surithakumari, S. N. Padma Devi and S. Vasandha



- 206 Variation in allometric shell growth and relationship with sexual size dimorphism in repatriated Indian star tortoises (*Geochelone elegans*) (Reptilia: Testudinidae)**
Abhishek Narayanan

RESEARCH COMMUNICATIONS

- 214 Long-term performance assessment of nuclear waste and natural glasses in the geological repository: a geochemical modelling**
Nishi Rani, J. P. Srivastava and R. K. Bajpai

- 219 Remote sensing and GIS-based suitability modeling of medicinal plant (*Taxus baccata* Linn.) in Tawang district, Arunachal Pradesh, India**
Gibji Nimasow, Oyi Dai Nimasow, Jawan Singh Rawat, Gendan Tsering and Takem Litin

- 228 Variation in the phytotoxic activity of *Tinospora tuberculata* extracts as influenced by solvent type and chemical profile**
Farzad Aslani, Abdul Shukor Juraimi, Muhammad Saiful Ahmad-Hamdani, Farahnaz Sadat Golestan Hashemi, Md Amirul Alam, Dzolkhifli Omar, Md. Kamal Uddin and Md. Abdul Hakim

- 234 Reproductive biology of *Elaeocarpus blascoi* Welbel, an endemic and endangered tree species of Palni Hills, Western Ghats, India**
R. Ramasubbu and D. Felix Irudayaraj

- 241 Soil information system: web-based solution for agricultural land-use planning**
Tapas Bhattacharyya, S. P. Wani, P. Chandran, P. Tiwary, D. K. Pal, K. L. Sahrawat and M. Velayutham

- 245 An efficient method for digital imaging of ancient stone inscriptions**
G. Bhuvaneswari and V. Subbiah Bharathi

- 251 Effect of nectar reabsorption on plant nectar investment in *Cerasus cerasoides***
Kun Dong, Yan Dong, Rui Su, Jingli Zhang, Zhuo Qing, Xiaochun Yang, Xiaoxiao Ren, Yingbin Ma and Shaoyu He

BOOK REVIEWS

- 257 Valuing Health Systems: A Framework for Low and Middle Income Countries**, Charles Collins and Andrew Green, *reviewed by* Ramila Bisht and Chhavi Sodhi ■ **259 Annual Review of Analytical Chemistry, 2014**, R. Graham Cooks and Jeanne E. Pemberton (eds), *reviewed by* Shyamalava Mazumdar ■ **261 Algal Biotechnology and Environment**, Dinabandhu Sahoo and B. D. Kausaik (eds), *reviewed by* G. A. Ravishankar

PERSONAL NEWS

- 263 Venkataraman Jagannathan (1921–2015)**, M. V. Deshpande

ACADEMY NEWS

- 264 Indian Academy of Sciences elects new Fellows – 2016**



◀ COVER. Indian star tortoise feeding on flowers of *Senna auriculata*. See page 206.

