



Contents

Original research articles

phytochemistry

- Morpho anatomical studies of leaves of *Abutilon indicum* (Linn.) Sweet S464
Ramadoss Karthikeyan, Pannem Venkatesh, Nese Poggu Chandrasekhar
- Ethnoveterinary uses of medicinal plants among the Lambani community in Chitradurga district, Karnataka, India S470
Ramachandra Naik M., Vaishnavi Venugopalan, Preethi Kumaravelayutham, Y.L. Krishnamurthy
- Hyphenated chromatographic analysis of bioactive gallic acid and quercetin in *Hygrophila auriculata* (K. Schum) Heine growing wild in marshy places in India by validated HPTLC method S477
Md. Sarfaraj Hussain, Sheeba Fareed, Mohammad Ali
- An efficient in vitro plant regeneration of *Dipteracanthus prostratus* (Poir.) Nees. – a medicinal herb S484
Jeyachandran Robert, Baskaran Xavier ravi, Cindrella Louis
- In vitro* Regeneration of Plantlets from Leaf and Nodal explants of *Aristolochia indica* L. – An Important Threatened Medicinal Plant S488
Pramod V. Pattar and M. Jayaraj
- Pharmacognostic evaluation of *Nyctanthes arbor-tristis* bark S494
Sunil Ashokrao Nirmal, Subodh Chandra Pal and Subhash Chandra Mandal
- Pharmacognostic Screening, Phytochemical Evaluation and *In-Vitro* free radical Scavenging Activity of *Acacia leucophloea* Root S501
Deenanath Jhade, Sachin Jain, Ankit Jain Praveen Sharma
- Pharmacognostical and Phyto-physicochemical profile of the leaves of *Piper betle* L. var Pachaikodi (Piperaceae) – Valuable assessment of its quality S506
K.Periyanayagam, M.Jagadeesan, S.Kavimani, T.Vetriselvan

Acute and Subacute Toxicity study of the Acetone Leaf extract of <i>Centella asiatica</i> in Experimental Animal Models <i>P.K. Chauhan and V. Singh</i>	S511
UV– VIS Spectroscopic and HPLC Studies on <i>Dictyota bartayresiana</i> Lamour <i>Johnson Marimuthu Antonisamy and Krishnaveni Eahamban</i>	S514
Studies on molluscan glycosaminoglycans (GAG) from backwater clam <i>Donax cuneatus</i> (Linnaeus) <i>P Vijayabaskar, ST Somasundaram</i>	S519
Physicochemical standardization and evaluation of in–vitro antioxidant activity of <i>Aconitum heterophyllum</i> Wall <i>Satyendra K Prasad, R Kumar, DK Patel, AN Sahu, S Hemalatha</i>	S526
Pharmacognostical investigation of <i>Artemisia parviflora</i> Roxb. <i>Joghee Suresh, Jitin Ahuja, Nallupillai Paramakrishnan</i>	S532
Phytochemical studies on five medicinal ferns collected from Southern Western Ghats, Tamilnadu <i>A John De Britto, D Herin Sheeba Gracelin, P Benjamin Jeya Rathna Kumar</i>	S536
Quantification of phytochemical constituents and in–vitro antioxidant activity of <i>Mesua ferrea</i> leaves <i>Narender Prasad D, B Ganga Rao, E Sambasiva Rao, T Mallikarjuna Rao, VS Praneeth D</i>	S539
Pharmacognostic evaluation of stem bark of <i>Pongamia pinnata</i> (L.) Pierre <i>Dinesh Kumar, Ajay Kumar, Om Prakash</i>	S543
Variation of essential oil composition of <i>Melissa officinalis</i> L. leaves during different stages of plant growth <i>Keivan Saeb, Sara Gholamrezaee</i>	S547
Phytochemical studies on <i>Allamanda cathartica</i> L. using GC–MS <i>Prabhadevi V, Sahaya Sathish S, Johnson M, Venkatramani B, Janakiraman N</i>	S550
Determination of some minerals and trace elements in two tropical medicinal plants <i>R. Subramanian, P. Subbramaniyan, V. Raj</i>	S555
Effect of diets supplemented with Ethiopian pepper [<i>Xylopiya aethiopica</i> (Dun.) A. Rich (Annonaceae)] and Ashanti pepper [<i>Piper guineense</i> Schumach. et Thonn (Piperaceae)] on some biochemical parameters in normal rats <i>Adefegha SA, Oboh G</i>	S559
Preliminary Phytochemical, UV–VIS, HPLC and Anti–bacterial Studies on <i>Gracilaria corticata</i> J. Ag	S568

- Traditional Use of Plants against Snakebite in Sugali tribes of Yerramalais of Kurnool district, Andhra Pradesh, India S575
S.Khaleel Basha, G.sudarsanam
- Phytochemical properties of *Ganoderma applanatum* as potential agents in the application of nanotechnology in modern day medical practice S580
Akpera T. MANASSEH (FIMLS), Jombo T.A. Godwin (FMCPATH), EMANGHE E Ubleni (FMCPATH), Oguntayo O. Borisde (MSc)
- Validated HPTLC analysis method for quantification of variability in content of curcumin in *Curcuma longa* L (turmeric) collected from different geographical region of India S584
Kamran Ashrafi, Mohd Mujeeb, Altaf Ahmad, Mohd Amir, Md Nasar Mallick, Deepak Sharma
- Development of pharmacognostic standards of plants from Borginaceae family S589
SS Saboo, GG Tapadiya, SS Khadabadi
- Ethnobotanical investigation of *Nadars* in Atoor village, Kanyakumari District, Tamilnadu, India S593
S Jeeva, V Femila
- Phytochemical screening, antibacterial and free radical scavenging effects of *Artemisia nilagirica*, *Mimosa pudica* and *Clerodendrum siphonanthus* –An in-vitro study S601
Arokiyaraj S, Sripriya N, Bhagya R, Radhika B, Prameela L, Udayaprakash NK
- Production and properties of invertase from a *Cladosporium cladosporioides* in SmF using pomegranate peel waste as substrate S605
C.Uma, D.Gomathi, G.Ravikumar, M.Kalaisevi, M.Palaniswamy
- Simultaneous HPTLC–UV530 nm analysis and validation of bioactive lupeol and stigmasterol in *Hygrophila auriculata* (K. Schum) Heine S612
Md Sarfaraj Hussain, Sheeba Fareed, Mohammad Ali
- Rapid *in vitro* multiplication of the ethnomedicinal shrub, *Acacia caesia* (L.) Willd. (Mimosaceae) from leaf explants S618
Thambiraj J, Paulsamy S
- Immunomodulatory activity of ether insoluble phenolic components of n-butanol fraction (EPC–BF) of flaxseed in rat S623
Deepak M Kasote, Anand A Zanwar, Santosh T Devkar, Mahabaleshwar V Hegde, Keshav K Deshmukh
- Pharmacognostical analysis of *Naringi crenulata* leaves S627
Subramanian Sampathkumar, N Ramakrishnan
- Attenuation of reactive nitrogen species by different flavonoids enriched fractions of *Schima Wallichii* S632
Sanchita Das, Asis Bala, Manas Bhowmik, Lakshmi Kanta Ghosh

- Phytochemical characterization and antimicrobial activity of *Curcuma xanthorrhiza* Roxb. S637
Mary Helen PA, Susheela Gomathy K, Jayasree S, Nizy AM, Rajagopal B, Jeeva S
- Phytochemical and bio-efficacy studies on methanolic flower extracts of *Peltophorum pterocarpum* (DC.) Baker ex Heyne. S641
Vinod Kumar Nathan, Johnson Marimuthu Antonisamy, Wesley Edward Gnanaraj, Kavitha Marappampalayam Subramanian
- Pharmacological evaluation of ethanolic extract of *Daucus carota* Linn root formulated cream on wound healing using excision and incision wound model S646
Mithun Vishwanath K Patil, Amit D Kandhare, Sucheta D Bhise
- Phytochemical analysis and peripheral glucose utilization activity determination of *Stebulus asper* S565
Monjoy Kumar Choudhury, S Venkatraman, Lokesh Upadhyay
- Micropropagation and production of camptothecin form in vitro plants of *Ophiorrhiza mungos* B662
A. G. Namdeo, Priya T., B. B. Bhosale
- Variability in volatile constituents of *Cinnamomum tamala* leaf from Uttarakhand Himalaya S667
Hema Lohani, Harish C. Andola, Nirpendra Chauhan, Ujjwal Bhandari
- Hepatoprotective potential of ethanolic and aqueous extract of flowers of *Sesbania grandiflora* (Linn) induced by CCl₄ S670
Ishwer Kale, Mohd Asif Khan, Yusufuddin Irfan, Veerana Goud A
- Pharmacognostic, Physicochemical and Phytochemical Investigation of *Mangifera indica* L. var. Kesar leaf S680
Kalpna Rakholiya, Sumitra Chanda
- Preliminary phytochemical and antioxidant study of hydroalcoholic extracts from selected genera of Indian Lamiaceae S685
G. Ramu, G. Krishna Mohan, K.N. Jayaveera, S.P. Dhanapal, G. Senthilkumar
- Morpho-anatomy, physicochemical and phytochemical standardization with HPTLC fingerprinting of aerial parts of *Rivea hypocrateriformis* S689
Saboo Shweta, Tapadiya Ganesh, Khadabadi Somshekhar
- Chemical composition and *in vitro* antioxidative potential of essential oil isolated from *Curcuma longa* L. leaves S695
R. Priya, A. Prathapan, K.G Raghu, A. Nirmala Menon
- [Pharmacology and pharmacy](#)
[antioxidant activity](#)
- In vivo* antioxidant activity of bark extract of *Bixa orellana* L. against acetaminophen-induced oxidative stress S700
Smilin Bell Aseervatham G, Shamna R, Sangeetha B, Sasikumar JM

Hepatoprotective efficacy of curcumin against arsenic trioxide toxicity <i>VV Mathews, P Binu, MV Sauganth Paul, M Abhilash, Alex Manju, R Harikumaran Nair</i>	S706
<i>In vitro</i> prevention of chick pancreatic lipase activity by <i>Abroma augusta</i> extract <i>Nidhi Gupta, Aditya Ganeshpurkar, Nishikant Jatav, Divya Bansal, Nazneen Dubey</i>	S712
<i>In vitro</i> antioxidant activity of <i>Barleria noctiflora</i> L. f. <i>Sangilimuthu Alagar Yadav, Anitha Jabamalai Raj, R Sathishkumar</i>	S716
Evaluation of analgesic, cytotoxic and antioxidant activities of <i>Sansevieria roxburghiana</i> Schult. and Schult. f. <i>Jimuty Roy, Mohammad Kuddus, Bilkis Begum, Choudhury Hasan</i>	S723
Estimation of camptothecin and pharmacological evaluation of <i>Ophiorrhiza prostrata</i> D. Don and <i>Ophiorrhiza mungos</i> L. <i>Krishnakumar G, Rameshkumar KB, Priya Srinivas, Satheeshkumar K, Krishnan PN</i>	S727
<i>In vitro</i> antioxidant potential of methanol extract of the medicinal plant, <i>Acacia caesia</i> (L.) Willd <i>Thambiraj J, Paulsamy S</i>	S732
<i>In-Vivo</i> Antioxidant activity of ethanolic extract of <i>Mentha pulegium</i> leaf against CCl ₄ induced toxicity in rats <i>Sachin Jain, Dinesh Kumar Jain, Neelam Balekar</i>	S737
<i>In Vitro</i> Antioxidant and Anticancer potential of Bark of <i>Costus pictus</i> D.DON <i>Malairaj Sathuvan, Anadhan Vignesh, Ramar Thangam, Perumal Palani, Ramasamy Rengasamy, Kandasamy Murugesan</i>	S741
Alterations in antioxidants enzymes and Malondialdehyde status in preeclampsia <i>Nnodim Johnkennedy, Ihim Augustin and Uduji Hellen Ifeoma</i>	S750
Evaluation of antioxidant activity of <i>Ammania baccifera</i> (L.) Whole plant extract in rats <i>Subash vijayakumar, Ramaiyan Dhanapal, I. Sarathchandran, A. Saravana Kumar and J.Vijaya Ratna</i>	S753
Preventive and curative effect of <i>Woodfordia fruticosa</i> Kurz flowers on thioacetamide induced oxidative stress in rats <i>A Nitha, PN Ansil, SP Prabha, PJ Wills, MS Latha</i>	S757
Modulation of lipid peroxidation and antioxidant status upon administration of 'Shemamruthaa' in 7,12-dimethylbenz[a]anthracene induced mammary carcinoma bearing rats <i>Ayyakkannu Purushothaman, Elumalai Nandhakumar, Panchanatham Sachdanandam</i>	S765

- Antioxidant enzyme activities and lipid peroxidation as biomarker for potato tuber stored by two essential oils from Caraway and Clove and its main component carvone and eugenol S772
Abd El-Moneim MR Afify, Hossam S El-Beltagi, Amina A Aly, Abeer E El-Ansary
- Efficacy of golden rain tree against free radicals and H₂O₂-induced damage to pUC18/calf thymus DNA S781
Manish Kumar, Madhu Chandel, Neha Sharma, Subodh Kumar, Satwinderjeet Kaur
- In vitro* assessment of antioxidant and antibacterial properties of *Terminalia chebula* Retz. leaves S788
Kathirvel A, Sujatha V
- [Antimicrobial activity](#)
- Antioxidant and antimicrobial activities of *Saraca thaipingensis* Cantley ex Prain S796
Supaluk Prachayasittikul, Apilak Worachartcheewan, Sakda Yainoy, Natthakaln Lomchoey, Paveena Kittiphatcharin, Somsak Ruchirawat, Virapong Prachayasittikul
- Antibacterial activity of *Argemone mexicana* L. against multidrug resistant *Pseudomonas aeruginosa*, isolated from clinical samples S800
Mahesh C Sahu, Nagen K Debata, Rabindra N Padhy
- Evaluation of antidermatophytic activity of *Ranunculus sceleratus* and *Pongamia pinnata* available in North Eastern Region of India S808
Sharma KK, Kotoky J, Kalita JC, Barthakur R
- Antimicrobial effect of *Calotropis procera* active principles against aquatic microbial pathogens isolated from shrimp and fishes S812
Subramanian Velmurugan, Vijayaragavan Thanga Viji, Mariavincen Michael Babu, Mary Josephine Punitha, Thavasimuthu Citarasu
- Surveillance of multidrug resistance of 6 uropathogens in a teaching hospital and *in vitro* control by 25 ethnomedicinal plants used by an aborigine of India S818
Shakti Rath, Debasmita Dubey, Mahesh C Sahu, Nagen K Debata, Rabindra N Padhy
- Actinomycetes from Western Ghats of Tamil Nadu with its antimicrobial properties S830
Valan Arasu M, Ignacimuthu S, Agastian P
- Screening for antibacterial principle and activity of *Aerva javanica* (Burm .f) Juss. ex Schult. S838
P Srinivas, S Ram Reddy
- Antimicrobial activity of medicinal plants used by aborigines of Kalahandi, Orissa, India against multidrug resistant bacteria S846

- Debasmita Dubey, Mahesh C Sahu, Shakti Rath, Bimoch Projna Paty, Nagen K Debata, Rabindra N Padhy*
- Evaluation of antiviral and cytotoxic activities of methanolic extract of *S. grandiflora* (Fabaceae) flowers S855
Saravana Kumar Arthanari, Jayachandran Vanitha, Mani Ganesh, Krishnasamy Venkateshwaran, De Clercq
- In vitro* anti- bacterial activity of leaves extracts of *Albizia lebbek* Benth against some selected pathogens S859
Mohammed Nazneen Bobby, Edward Gnanaraj Wesely, Marimuthu@Antonisamy Johnson
- Biochemical characterization, antimicrobial and hemolytic studies on skin mucus of fresh water spiny eel *Mastacembelus armatus* S863
Venkatachalam Uthayakumar, Venkatachalam Ramasubramanian, Dhanabalan Senthilkumar, Venkatesan Brindha Priyadarisini, Ramasamy Hari Krishnan
- In vitro* propagation and antibacterial activity of *Clitoria ternatea* Linn. S870
Arumugam M, Panneerselvam R
- In vitro* interaction of certain antimicrobial agents in combination with plant extracts against some pathogenic bacterial strains S876
Kalpna Rakholiya, Sumitra Chanda
- Antibacterial activity and physicochemical evaluation of roots of *Butea monosperma* S881
Prashant Tiwari, Ritesh Jain, Kuldeep Kumar, Rahul Mishra, Anish Chandu
- Antimicrobial evaluation of mangiferin and its synthesized analogues S884
Shashi Kant Singh, Rupali M Tiwari, Saurabh K Sinha, Chhanda C Danta, Satyendra K Prasad
- Antioxidant activity of *Palmarosa essential oil (Cymbopogon martini)* grown in north Indian plains S888
Kapil Lawrence, Reena Lawrence, Dharmendra Parihar, Rashmi Srivastava, Abhishek Charan
- Antibacterial activity of *Parmelia perlata* S892
Alwar Vidyalakshmi, Kandaswamy Kruthika
- In vitro* Antioxidant and Antibacterial Activity of Aqueous and Methanolic Extract of *Mollugo nudicaulis* Lam. Leaves S895
A. Rameshkumar, T.Sivasudha
- Antimicrobial activity of bergenin isolated from *Peltophorum pterocarpum* DC. flowers S901
M Karunai Raj, V Duraipandiyan, P Agustin, S Ignacimuthu
- [Antidiabetic activity](#)
- Influence of *Punica granatum* L. on region specific responses in rat brain during Alloxan-Induced diabetes S905
Sushil Kumar Middha, Talambedu Usha, Tekupalli RaviKiran

- Ethnobotanical Study of Anti-diabetic medicinal plants used by the local people in Javadhu hills Tamilnadu, India S910
T.Thirumalai, Beverly C David, K.Sathiyaraj, B.Senthilkumar, E David
- Antimicrobial and antihyperglycemic activities of *Musa paradisiaca* flower S914
Sunil Jawla, Y Kumar, MSY Khan
- Hypoglycemic activity of *Bougainvillea spectabilis* stem bark in normal and alloxan-induced diabetic rats S919
Sunil Jawla, Y Kumar, MSY Khan
- Anti hyperglycemic and antihyperlipidemic activity of aerial parts of *Aerva lanata* Linn Juss in streptozotocin induced diabetic rats S924
Rajesh R, Chitra K, Padmaa M Paarakh
- Gymnema sylvestre* R. Br. suspension cell extract show antidiabetic potential in Alloxan induced diabetic albino male rats S930
R Karthic, S Nagaraj, P Arulmurugan, S Seshadri, R Rengasamy, K Kathiravan
- Antidiabetic activity of alcoholic root extract of *Caesalpinia digyna* in streptozotocin-nicotinamide induced diabetic rats S934
R Kumar, DK Patel, SK Prasad, K Sairam, S Hemalatha
- Antidiabetic activity of methanol extract of *Acorus calamus* in STZ induced diabetic rats S941
David Hansi Prisilla, Rangachari Balamurugan, Harshit R Shah
- Anti-inflammatory activity**
- In vivo* anti-inflammatory potential of various extracts of *Sida tiagii* Bhandari S947
Ramkumar Kumawat, Sunil Sharma, Neeru Vasudeva and Suresh Kumar
- Antiinflammatory, antinociceptive and antioxidant activities of *Phyllanthus acidus* L. extracts S953
Raja Chakraborty, Biplab De, Nayakanti Devanna, Saikat Sen
- Effect of aqueous extract of *Cucumis sativus* Linn. fruit in ulcerative colitis in laboratory animals S962
Mithun Vishwanath K Patil, Amit D Kandhare, Sucheta D Bhise
- Analgesic, anti-inflammatory and anti-arthritic activity of *Cassia uniflora* Mill. S970
Sheetal S Chaudhari, Sanjay R Chaudhari, Machindra J Chavan
- Antioxidant and *in vitro* anti-inflammatory activities of *Mimusops elengi* leaves S976

Other activities

Antioxidant and Cytotoxicity of β -Amyrin acetate fraction from *Bridelia ferruginea* Leaves S981
Oluwatoyin Adenike FABIYI, Olubunmi ATOLANI, Oluyomi S. ADEYEMI, Gabriel Ademola OLATUNJI

Immunomodulatory effect of *Tricosanthes Dioica* Roxb S985
Sandeep Singh Bhadoriyal, Narendra Mandoriya

Traditional Herbal Practices by the Ethnic People of Kalahandi District of Odisha, India S988
Bikram K. Mallik, Tribhuban Panda, Rabindra N. Padhy

Chemopreventive effect of *Fumaria indica* that modulates the oxidant-antioxidant imbalance during N-nitrosodiethylamine and CCl₄-induced hepatocarcinogenesis in Wistar rats S995
Talib Hussain, Hefazat H Siddiqui, Sheeba Fareed, K Sweety, M Vijayakumar, Chandana V Rao

Screening of herbal extracts influencing hematopoiesis and their chemical genetic effects in embryonic zebrafish S1002
Rajaretinam Rajesh Kannan, Samuel Gnana Prakash Vincent

Effect of intracerebrovascular injection of ghrelin on some of erythropoietic indicators in 42-day-old broiler chicken S1010
Habib Aghdam Shahryar, Alireza Lotfi, Jalil Dolghari Sharaf

Dental care of Andaman and Nicobar folks: medicinal plants use as tooth stick S1013
Rasingam L, Jeeva S, Kannan D

Acute and sub-acute oral toxicity profile of *Acorus calamus* (Sweet flag) in rodents S1017
Arunachalam Muthuraman, Nirmal Singh

Reversible antispermatogenic and antisteroidogenic activities of *Feronia limonia* fruit pulp in adult male rats S1024
Ramaiyan Dhanapal, J.Vijaya Ratna, I. Sarathchandran, Malaya Gupta

Pharmaceutics

Thermal studies on natural polysaccharide S1031
Sunil B Bothara, Sudarshan Singh

Anti-inflammatory and analgesic activities of acetophenone semicarbazone and

- benzophenone semicarbazone S1036
Shaikh M Mohsin Ali, Mele Jesmin, M Abul Kalam Azad, M Khairul Islam, Ronok Zahan
- Synthesis, Molecular docking and Biological evaluation of 4–Cycloalkylidineamino
 1, 2–Naphthoquinone Semicarbazones as Anticancer agents S1040
Shubhanjali Shukla, Radhey Shyam Srivastava, Sushant Kumar Shrivastava, Ajit Sodhi, Pankaj Kumar
- Novel drug target identification on UDP–Glucose 4–epimerase enzyme in
Catharanthus roseus by insilico model S1047
Ramachandran M, Elumalai EK
- Marine Biomedicine**
- Metallothionein induction and antioxidative responses in the estuarine polychaeta *Capitella capitata* (Capitellidae) S1052
Suriya J, S Bharathiraja, V Sekar, R Rajasekaran
- Bioactive potential of some intertidal molluscs collected from Mumbai coast, West coast of India S1060
Atul G. Babar, Anant Pande, Balasaheb G. Kulkarni
- Three new species of cercariae from *Melanopsis praemorsa* (L. 1758, Buccinum)
 snails in Al–Bathan fresh water body, Palestine S1064
Sami Bdir, Ghaleb Adwan
- Toxicity studies of crude extracts from marine *Streptomyces* sps. with potential antibacterial
 sensitivity against antibiotic resistant human pathogens S1070
Palavesam Suganthi, Sundaram Ravikumar
- Antibacterial potential of selected red seaweeds from Manapad coastal areas,
 Thoothukudi, Tamil Nadu, India S1077
Adaikalaraj G, Patric Raja D, Johnson M, Janakiraman N, Babu A
- Taxol producing mangrove endophytic fungi *Fusarium oxysporum* from *Rhizophora annamalayana* S1081
Alaganadham Elavarasi, Gnanaprakash Sathiya Rathna, Murugaiyan Kalaiselvam
- Histological study of middle layer of rabbit fish eye (*siganus javus*) S1086
Amir Sattari, Marziyeh Asli, Foroogh sadat Mansoori, Reza Kheirandish, Hossein Yavari
- In vitro* antiplasmodial activity of marine sponge *Clathria indica* associated bacteria against *Plasmodium falciparum* S1090
Samuel Jacob Inbaneson, Sundaram Ravikumar
- Micropropagation and Phenolic exudation protocol for Excoecaria

- agallocha—an important mangrove S1096
Manickam Arumugam, Rajaram Panneerselvam
- Report on the distribution of essential and non essential fatty acids in common edible fishes of Porto–Novo coastal waters, southeast coast of India S1102
G.Marichamy, M.A.Badhul Haq, R.Vignesh, R.Shalini and A.R.Nazar
- Microbiology**
- Isolation of Pathogenic Bacteria on the House Fly, *Musca domestica* L. (Diptera: Muscidae), Body Surface in Ahwaz Hospitals, Southwestern Iran S1116
Hamid Kassiri, Kamran Akbarzadeh, Anvar Ghaderi
- Real time PCR quantification of WSSV infection in specific pathogen free (SPF) *Litopenaeus vannamei* (Boone, 1931) exposed to antiviral nucleotide S1120
MA Badhul Haq, K Kalai Priya, R Rajaram, R Vignesh, M Srinivasan
- Screening of twenty five plant extracts for larvicidal activity against *Culex quinquefasciatus* Say (Diptera: Culicidae) S1130
Samuel Tennyson, K John Ravindran, S Arivoli
- knowledge, attitudes and practices study in relation to entomophobia and its application in vector–borne–diseases S1135
Faranak Firoozfar, Nahid norjah, Mojgan Baniardalani, Seyed Hassan Moosa–Kazemi
- Purification and characterization of protease enzyme from actinomycetes and its cytotoxic effect on cancer cell line (A549) S1138
C Balachandran, V Duraipandiyar, S Ignacimuthu
- Isolation and partial characterization of actinomycetes with antimicrobial activity against multidrug resistant bacteria S1147
Smriti Singh, Pramod Kumar, N Gopalan, Bhwnesh Shrivastava, RC Kuhad, Hotam Singh Chaudhary
- Antidiarrhoeal activity of ethanol and aqueous extracts of *Carum copticum* seeds in experimental rats S1151
G Balaji, M Chalamaiah, B Ramesh, Y Amarnath Reddy
- Contamination of soil and grass to *Toxocara* spp. eggs in public parks of Qazvin, Iran S1156
Saraei M, Zakilo M, Tavazoei Y, Jahanihashemi H, Shahnazi M
- In vitro* Studies on anticancer activity of fungal taxol against human breast cancer cell line MCF–7 cells S1159
R. Vennila, S. Kamalraj, and J. Muthumary

Review

- Phytochemical and ethno–pharmacological profile of *Crataeva nurvala* Buch–Hum (Varuna): A review S1162
Atanu Bhattacharjee , Shastry Chakrakodi Shashidhara , Aswathanarayana
- Wedelia chinensis* (Asteraceae) – An overview S1169
Sameksha Koul, A Pandurangan, RL Khosa
- Recent advances in various emerging vesicular systems: An overview S1176
Mayank Gangwar, Ragini Singh, RK Goel, Gopal Nath
- Review on the indigenous use and ethnopharmacology of hot and cold natures of
phytomedicines in the Iranian traditional medicine S1189
Peyman Mikaili, Jalal Shayegh , Mohammad Hossein Asghari
- Ethnomedicinal and phytopharmacological potential of *Crataegus oxyacantha* Linn. – A review S1194
CP Kashyap, Vikrant Arya, Narender Thakur
- A mini review on chemistry and biology of *Holoptelea integrifolia* Roxb. Planch (Ulmaceae) S1200
Dinesh Kumar, Karunesh Kumar, Jyoti Gupta, Navita Bishnoi, Sunil Kumar

Case report

- Optic perineuritis secondary to tuberculosis: A rare case presentation S1206
Ali Raghobi, Wan Hazabbah Wan Hitam, Raja Azmi Mohd Noor, Zunaina Embong
- Diabetes with multiple abscesses disseminated in time and place S1209
Stalin Viswanathan, Bhavith Remalayam, Vivekanandan Muthu, Shyam Kumar