

## ACADEMIC PROFILE

**NAME:** Dr. Gopan Raj  
**DESIGNATION:** ASSISTANT PROFESSOR,  
DEPARTMENT OF CHEMISTRY  
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**EDUCATIONAL QUALIFICATION:** M.Sc., Ph.D.  
**AREA OF INTEREST:** Organic Chemistry.  
**SPECIALISATION:** Natural Product Chemistry  
**TEACHING EXPERIENCE:**

Assistant professor	S. N. College, Punalur	16/10/12 till date
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### RESEARCH PAPERS PUBLISHED

1. **Gopan Raj**, Shiburaj, S., Sethuraman, M.G. and George, V.  
Chemical composition and antibacterial activity of the leaf oil from  
*Clausena austroindica* Stone & Nair; *J. Trop. Med. Plants*, 5 (2), 233-236, 2004.
2. Singh Om V., Muthukrishnan M. and **Gopan Raj**.  
Manganese (III) Acetate Mediated Oxidation of Flavanones: A Facile Synthesis of Flavones;  
*Synthetic Communications*. 35 (20), 2723 – 2728, 2005.
3. **Gopan Raj**, Dan, M., Shiburaj, S., Sethuraman, M.G. and George, V.  
Chemical composition and antibacterial activity of the rhizome oil of *Hedychium larsenii*; *Acta Pharmaceutica*. 55, 315-320, 2005.
4. **Gopan Raj**, Dan, M., Shiburaj, S., Sethuraman, M.G. and George, V.  
Chemical composition and antibacterial activity of the rhizome oil of *Alpinia abundiflora*; *J. Med. Arom. Plants*. 28, 45-47, 2006.
5. **Gopan Raj**, George, V., Pradeep, N.S., and Sethuraman, M.G.  
Volatile constituents and antibacterial activity of *Eugenia rottleriana* Wight & Arn. Leaf oil; *J. Essent. Oil Res.* 19, 588-590, 2007.
6. **Gopan Raj**, George, V., Pradeep, N.S., and Sethuraman, M.G.

- Chemical composition and antimicrobial activity of *syzygium gardneri* Thw. leaf oil; *J. Essent. Oil Res.* 20, 76-78, 2008
7. **Gopan Raj**, Sabulal, B., Thaha, A.R.M., Mathew Dan, Sethuraman, M.G and George, V.  
Volatile Constituents from the Rhizomes of *Curcuma haritha* Mangaly and Sabu from southern India; *Flav. Fragr. J.* 23, 348-352, 2008
  8. **Gopan Raj**, Renju K. V., Pradeep, N.S. and Sabulal B.  
Chemical Composition and Antibacterial Activity of Volatile Oil of *Eucalyptus citriodora* Hook. from South India; *Int. J. Essent.oil Ther.* 3, 147- 151, 2009
  9. **Gopan Raj**, George, V., Dan, M.and Sethuraman, M.G.  
Essential Oil Composition of *Globba schomburgkii* Hook. f. and *Globba ophioglossa* Wight; *J. Essent. Oil Res.* 22, 220-222, 2010.
  10. Sabulal B., **Gopan Raj** ,Thaha A.R.M. and Mathew Dan  
Volatile chemistry of a plant: mono-sesquiterpenoid pattern in the growth cycle of *Curcuma haritha*; *Flav. Fragr. J.* 25, 35-40, 2010.
  11. **GopanRaj**, George, V. and Sethuraman, M.G.  
Chemical Analysis of Essential Oil from the leaves of *Eugenia argentea* Bedd. *J. Essent. Oil Res.* 23, 55-57, 2011.
  12. **GopanRaj**, Pradeep, N.S. Sethuraman, M.G. and George, V.  
Chemical and Antimicrobial study of Essential Oil from the Leaves of *Curcuma haritha* Mangaly and Sabu; *J. Essent. Oil Bearing Plants.* 14, 185-191. 2011.
  13. Ramesh V.K., **Gopan Raj**, Anil john J., Sethuraman, M.G. and George, V.  
Chemical Composition of the Leaf, Stem and Root Oils of *Pleiospermium alatum*. *J. Essent. Oil Res.* 23, 1-4, 2011.
  14. **Gopan Raj**, S.R. RajaniKurup, A. A. Hussain and B Sabulal.  
Distribution of naphthoquinones, plumbagin, droserone, and 5-O-methyl droserone in chitin-induced and uninduced *Nepenthes khasiana*: molecular events in prey capture. *J. Exp. Bot.*, 62: 5429-5436, 2011.
  15. **Gopan Raj**, Dan, M. George, V. and Sethuraman, M.G.  
Studies on Chemical Composition of Essential Oils from Leaf and Inflorescence of *Hedychium larsenii* M.Dan & Sathish. *J. Essent. Oil Res.* 25, 33-38, 2013.
  16. **Gopan Raj**, Pradeep D. P., Yusuf Ali C., Mathew Dan and Sabulal B. Chemical Profiles of Volatiles in Four *Alpinia* Species from Kerala, South India. *J. Essent. Oil Res.* 25, 97-102, 2013.
  17. Shine V. J., Latha P. G., Suja S. R., Anuja G.I., **Gopan Raj**, Rajasekharan S.

- Ameliorative effect of alkaloid extract of *Cyclea peltata* (Poir.) Hook. f. & Thoms. roots (ACP) on APAP/CCl<sub>4</sub> induced liver toxicity in Wistar rats and in vitro free radical scavenging property *Asian Pac. J. Trop. Biomed.*; 4: 143-151, 2014.
18. Sini S., Latha P.G. Anilkumar T.V., Suja S.R., **Gopan Raj**, Rameshkumar K.B., Shyamal S., Shine V.J., Anuja G.I., Shikha P., Krishnakumar N.M., Sreejith G. and S. Rajasekharan. Safety Assessment of Tuberous Rhizome of *Kaempferia rotunda* L. by Acute and 28-days Repeated Dose Toxicity Studies, *Global J. Pharmacol.*, 8 (2): 128-139, 2014.
19. Sruthi Sudarsan, **Gopan Raj**  
Green synthesis of Cr<sub>2</sub>O<sub>3</sub> nanoparticles using *Tapioca* leaf extract. Proceedings of National Seminar (UGC) on Green Analytical Techniques, D.B. College, Sasthamcotta, Kollam, Kerala, p-143, September, 9-10, 2015.
20. **Gopan Raj**, N.S. Pradeep, V. George, and M.G. Sethuraman, Chemical composition and Antimicrobial activity of *Syzygium caryophyllatum* (L.) Alston Leaf Oil, *Indian Journal of Chemistry*, Vol.55B; 747-751, 2016.
21. Shine V.J, Anuja G.I, Suja S.R, **Gopan Raj**, Latha P.G, Bioassay guided fractionation of *Cyclea peltata* using in vitro RAW 264.7 cell culture and antioxidant assays, Determination of bioactive compound tetrandrine, *Journal of Ayurveda and Integrative Medicine*, 11, 281-286, 2020.

#### **PAPERS PRESENTED IN CONFERENCE / SYMPOSIA:**

1. George V., Rajasekharan S. and **Gopan Raj**  
In vitro HPLC screening of plant extracts for inhibitors of Angiotensin Converting Enzyme. Third International Symposium on Chromatography of Natural Products. Lublin- Kazimierz Dolny, Poland, June 12-15, 2002.
2. **Gopan Raj**, Anil John J., S.Shiburaj, and V.George.  
Zerumbone rich essential oil from *Zingiber zerumbet* (L.) rhizome. *National Seminar on Recent Trends in Isolation, Characterisation, Synthesis and Biological Studies of Organic Compounds, GRI-Gandhigram, TamilNadu, March 5-6, 2004.*
3. Anil John J., **Gopan Raj**, M.G.Sethuraman, S.Shiburaj and V.George. Chemical and antimicrobial studies on essential oil of *Pittospermum neelgherrense* Wight & Arn. stem bark. *National Seminar on Recent Trends in Isolation, Characterisation, Synthesis and Biological Studies of Organic Compounds, GRI-Madurai, March 5-6, 2004.*
4. **Gopan Raj**, Pradeep, N.S., George, V., and Sethuraman, M.G.

Chemical composition and antimicrobial activity of essential oils from two *Syzygium* species. *28<sup>th</sup> Annual Conference of Indian Association of Biomedical Scientists, Bharathidasan University, Tiruchirappalli, September, 2007.*

5. **Gopan Raj**, Sabulal Baby, Mathew Dan, Muhammed Thaha, Sethuraman M. G., and George V.  
Chemistry of volatile and non-volatile chemical constituents from the rhizomes of *Curcuma haritha* an endemic species. *3<sup>th</sup> Asian Symposium on Medicinal Plants, Spices and Other Natural products (ASOMPS XIII), Indian Institute of Chemical Technology [IICT], Hyderabad 2008.*
6. **Gopan Raj**, Sreeja P.C., Sabulal B., Sethuraman M.G. and George V.  
*In vitro* antioxidant activity of petroleum ether extract of an endemic wild ginger, *Curcuma haritha* Mangaly and Sabu. *Current trends in free radical research and herbal antioxidants, Society for free radical research- India, Satellite conference, Amala Cancer Research Centre, Thrissur, Kerala, January 8-9, 2010.*
7. Sabulal B., **Gopan Raj** and Rajani Kurup.  
HPTLC-based estimation of plumbagin in the carnivorous plant *Nepenthes khasiana*. *International Symposium for High-Performance Thin-Layer Chromatography. Basel, Switzerland, July 6-8, 2011.*
8. **Gopan Raj**, Sethuraman M. G., and George V.  
Studies on Essential oils of Two Lesser Known *Eugenia* Species from Western Ghats. *International Conference on Biologically Active Molecules (ICBAM 2012) GRI- Gandhigram, TamilNadu, March 8-10, 2012.*
9. Soumya A.S., **Gopan Raj**.  
Studies on trace elements and antioxidant activity of Papaya leaves. National Conference Cum Workshop on Nutraceuticals-Perspectives, Prospects and Challenges, Mar Athnesius college, Ernakulam, Kerala, *March 12-13, 2013.*
10. Anjitha P.I., **Gopan Raj**.  
Head space analysis of volatiles from spice mixture-Garam masala. National Seminar on Material Science and Modern Analytical Techniques, M.P.M.M.S.N.Trusts College, Shoranur, Kerala, *March 26-27, 2014.*
11. **Gopan Raj**.  
*Bio- Nanoparticles: a promising future*  
National Seminar (UGC) on Nano Material for Energy Applications. S. N. College, Punalur, Kerala, January, *7-8, 2016.*

## CHAPTERS IN BOOKS

**Gopan Raj**, Sethuraman M. G., and George V. *Studies on Essential oils of Two Lesser Known Eugenia Species from Western Ghats*, in *Biologically Active Molecules*, Ed. N.S. Nagarajan. Excel India Publishers, New Delhi, 222-225; 2012

## RESEARCH PROJECTS CARRIED OUT / BEING PURSUED

1. "Phytochemical Investigation of Tropical Medicinal Plants with a View to Develop Drugs, Pharmaceutical Products, Chemicals, Industrial Raw Materials etc."  
Plan Funded Project (2003-2007) - Co-PI
2. "Studies on Tropical Aromatic Plants with a View to Discover New Sources of Essential oils for Perfumery, Cosmetics, Flavor and Drug Industry".  
Plan Funded Project (2003-2007)- Co-PI
3. Chemical Prospecting of Plants in the Kerala Region of Western Ghats for Bioactive Molecules.  
Plan Funded Project (2008-2012)- Co-PI
4. Development of Fragrances, Aroma Chemicals and Flavouring Agents from Tropical Aromatic Plants.  
Plan Funded Project (2008-2012)- Co-PI
5. Studies on chemical variability in the essential oils of selected endemic *Eugenia* species of Western Ghats using advanced analytical techniques.  
UGC (Minor Research Project), 2014 -16, PI