

GC- MS ANALYSIS OF METHANOLIC EXTRACT OF NEEL (*INDIGOFERA TINCTORIA*) ROOT

Beena, C.* and Sindhu, P.V.

All India Coordinated Research Project on Medicinal, Aromatic Plants & Betelvine,
College of Horticulture, Kerala Agricultural University, KAU.P.O., Vellanikkara,
Thrissur -680656, Kerala, India
Email: beenac2@gmail.com

Received-01.10.2020, Revised-23.10.2020

Abstract: *Indigofera tinctoria* L. is famous as Indian indigo plant from early periods. It belongs to the family Leguminosae and is one of the oldest colouring agents known to man. Neel leaves are used in ayurveda and it forms a major ingredient of preparations like Neelibringadi oil, Aravindasavam, Neelithulsiyadi kashayam etc. The Juice of the Neel leaves mixed with honey is effectively used against enlargement of liver and spleen, epilepsy and other nervous problems. The root of the plant which was usually abandoned after harvest also has very good therapeutic potentials reported. It is being used by traditional healers and also in folk medicines. Decoction of the root is given to treat calculus. An infusion of root is given as an antidote in cases of arsenic poisoning. Root infusion is used as an antidote against snakebites and to treat insect and scorpion stings. It is an antidote against mushroom and arsenic poisoning. Root preparation is used in Tanzania as a remedy against syphilis, gonorrhoea and kidney stone. In the present study, phytochemical investigations were carried out in the roots of Neel. The methanol extract of root when subjected to GC-MS analysis revealed the presence of many compounds which are reported to have pharmacological activities supporting the medicinal usages of this root. The specific TLC fingerprint developed can also be made useful for authentication of Neel root when used as raw herbal drug.

Key words: *Indigofera tinctoria*, Neel, GC-MS analysis

REFERENCES

- Arun, V., Liju, V.B., Reena, J., Parthipan, B. and Renuka, C.** (2007). Traditional remedies of Kanitribes of Kottoor reserve forest, Agasthyavanam, Thiruvananthapuram, Kerala. *Indian Journal of Traditional Knowledge*. Vol. 6(4), 589-594.
- Debiyi, O.O. and Sofowora, F.A.** (1978). Phytochemical screening of medicinal plants. *Ilyodia*, Vol. 3: 234-246.
- Horbone, J.B.** (1998). Phytochemical methods-A guide to modern techniques of plant analysis, Chapman and Hall, London, 42(129): 203.
- Kirtikar, K.R. and Basu, B.D.** (2008). Indian medicinal plants. II edition Vol. 11:712.
- Nambiar, V.P.K., Warriar, P.K. and Ganapathy, P.M.** (2000). Some important medicinal plants of western ghats, India: A profile: AVS Publications, IDRC, Artstock, New Delhi, India. Vol.1: 105-120.
- Pavitra, K and Vadivukarasi, S.** (2012). GC-MS evaluation of chemical constituents from methanolic leaf extract of *Kedrostis foetidissima*(Jac). *Cogn. Asian journal of pharmaceutical and clinical*. Vol.5: 668-679.
- Suganthi, S., Rajasekar, M. and Udhaya Nandhini, D.** (2019). Exotic medicinal plants used by tribal population of Siruvani, Coimbatore-An ethnobotanical survey. *Journal of Plant Development Sciences*, Vol.11 (5): 295-298.
- Tomar, A.** (2007). Folk medicinal uses of some indigenous plants of Hastinapur block in Meerut District, (Uttar Pradesh) India. *Journal of Medicinal and Aromatic Plant Sciences*, Vol. 29 (4): 186-190.
- Tomar, A.** (2009). Folk medicinal uses of plant roots from Meerut district, Uttar Pradesh. *Indian Journal of Traditional Knowledge*, Vol. 8 (2): 298-301.
- Venkitachalam, D.** (2018). Pharmacognostic investigations and phytochemical studies in *Indigofera tinctoria*. *Indian Journal of Pharmacognosy*. Vol. 5(11): 732-37.
- Wagner, R. and Bladt, S.** (1996). Plant drug analysis, A thin layer Chromatography atlas 2nd Edition Springer ; Berlin.
- Warriar, P.K. Nambiar, V.P.K. and Ramankutty, C.** (1997). Indian Medicinal Plants- A Compendium of 500 species. Orient Longman Ltd. Vol.4: 321.

*Corresponding Author