



Studies on Air Pollution Tolerance Index of Native Plant Species to Enhance Greenery in Industrial Area

P. Rupa and T. Venkatachalam¹

Department of Chemistry, ¹Department of Physics, Coimbatore Institute of Technology, Coimbatore-641 014, India
E-mail: rupspadmanabhan@rediffmail.com

Abstract: Air pollution tolerance index of the native plants were assessed to evaluate their response to tolerance level of pollution by analyzing four biochemical and physiological parameters namely relative water content, pH, total chlorophyll and ascorbic acid content of twenty two plant species during the summer and monsoon seasons during 2016. On the basis of high air pollution tolerance indices the plant species *Mangifera indica*, *Albizia lebbbeck*, *Magnolia champaca*, *Psidium guajava*, *Bougainvillea spectabilis*, *Thespesia populnea* and *Terminalia catappa* are grouped as tolerant. The species *Bauhinia varigeta*, *Tecoma stanus*, *Tabernaemontana divaricate* and *Muntinga calabura* with low air pollution tolerance indices are grouped as more sensitive to air pollution. The species with high air pollution tolerance index are given importance and suggested for plantation to enhance greenery and to minimize air pollution. This may be technically helpful for air pollution management in the industrial area.

Keywords: Air pollution tolerance index, Native plants, Chlorophyll content, Plantation, Pollution management
