Antioxidant activity of leaf and branch extracts of the Lagerstroemia genus
Tanyaporn Plengrat, Wantanee Sittiwong*
Department of Chemistry, Faculty of Science and Technology, Thammasat University,
Klongnueng, Pathumthani 12120, Thailand
*E-mail: wantane@tu.ac.th

Abstract: The genus Lagerstroemia belongs to the family of LYTHRACEAE which contains
about 620 species. In Thailand, L. floribunda (Tabak), L. speciosa (Inthanin) and L. loudonii
are common plants on the side of the street because their flowers have beautiful color. It has
long been known that the leaves of L. speciosa Pers. (Inthanin) have been used as herbal
medicines for anti-diabetic purposes. Several researchers have studied the chemical
composition and biological activities of this plant. In this investigation, we focused on the
antioxidant activity of three Lagerstroemia species: L. floribunda, L. speciosa and L.
loudonii. The leaves and branches of these plants were extracted with hexane, ethyl acetate
and methanol, respectively, followed by soxhlet extraction in ethanol. The antioxidant
activity of the crude extracts was measured by a diphenyl-picrylhydrazyl (DPPH) assay. We
found that L. loudonii leaf ethanol extract showed the best antioxidant activity with the IC$_{50}$
value of 14.17 μg/mL.

Keywords: Lagerstroemia floribunda Jack.; Lagerstroemia speciosa Pers.; Lagerstroemia loudonii Teijsm. &
Binn.; Antioxidant activity