SUMMARY

The present investigations include the isolation and characterization of seven quassinoids and five alkaloids from the root and the stem barks of *Ailanthus malabarica* and *A. altissima*. *A. malabarica* was collected from the coastal area in the State of Karnataka (South India) and *A. altissima* was collected from the hills of the State of Himachal Pradesh (North India). The plant material was exhaustively extracted with petroleum ether followed by methanol. Work up of the petroleum ether extract did not yield any quassinoid or alkaloid. The methanol extract was partitioned between chloroform and water. The chloroform soluble portion on fractionation through different chromatographic techniques yielded the quassinoids and the alkaloids, purity of which was checked through TLC and HPLC. The isolates were characterized and identified by detailed spectral studies.

The root bark of *A. malabarica* yielded four quassinoids, three of them were identified as ailanthinone, 13,18-dehydroailanthinone and excelsin, whereas, the fourth quassinoid was identified to be in the glaucarubinone series. These quassinoids have not been reported earlier from this plant. Two alkaloids isolated from the root bark were identified as 1-carbomethoxy-β-carboline and canthin-6-one.
the latter being also isolated from the stem bark. Two more alkaloids isolated from the stem bark of *Ailanthus malabarica* were identified as 4,8-dimethoxy-1-ethyl-β-carboline and 1-hydroxycanthin-6-one. But for the β-carboline alkaloids, all the other isolates are being reported from this plant for the first time.

From the root bark of *A. altissima* two quassinoids, identified as amarolide and ailanthone have been isolated, whereas, from the stem bark in addition to ailanthone another quassinoid isolated was identified as shinjulactone B. Two alkaloids isolated from the root bark were identified as canthin-6-one and its N-oxide and from the stem bark only canthin-6-one was isolated.