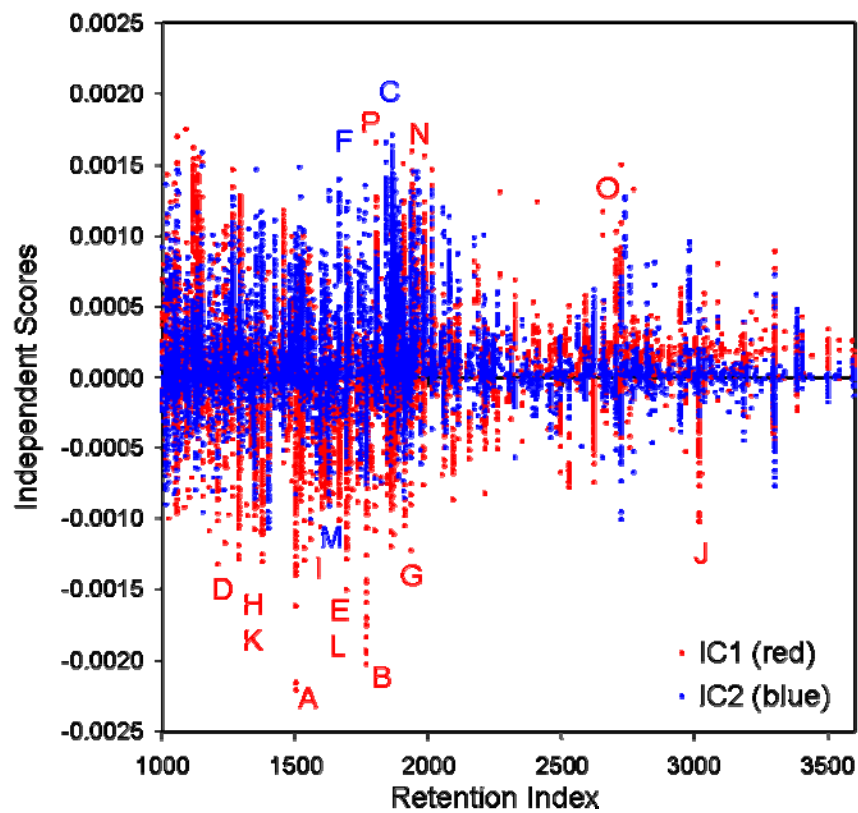
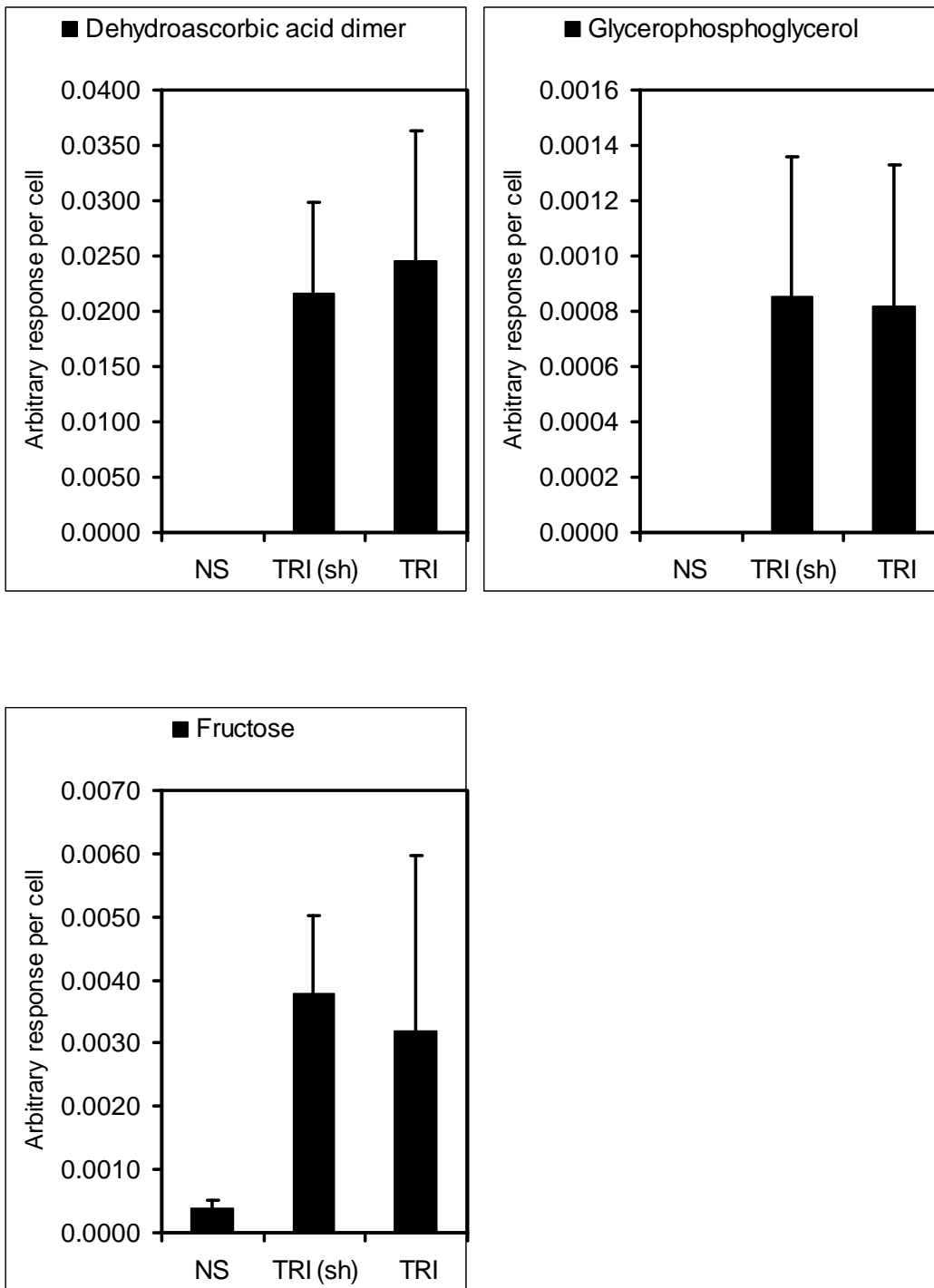


**Figure S1. Average number of trichomes of 40 days old Arabidopsis Columbia-0 wild type leaves.** Rosette leaves number 9 till 14 of plants at growth stage 3.9 (Boyes *et al.*, 2001) have been used to estimate the average number of trichomes per leaf. Trichomes of 5 replicates (n=5) of each leaf number were counted.



**Figure S2. Independent scores of IC1 and IC2 and corresponding retention time indices.**

Interesting Metabolites, which influenced IC1 and IC2 above a threshold of 0.1 or below -0.1 are labelled (Table 1).



**Figure S3. Metabolites showing similar mean normalized responses in complete trichomes harvested by LHD and trichome cell sap collected by microsampling (n=6 pools of cells).**

Non sample control (NS), trichomes shaved by LHD (TRI (sh)) and micro sampled trichomes (TRI)