Detection of Lycopene in Tomato Skin

Tomatoes are rich in lycopene, a hydrocarbon antioxidant that is the source of the red coloring in ripe tomatoes. The potential benefits of nutritional antioxidants such as lycopene have received a great deal of attention in the popular media.

A piece of tomato skin was placed in front of the DART and the positive-ion mass spectrum was recorded. Peaks were quickly observed at the expected exact masses for lycopene and $[M+H]^+(C_{40}H_{57}^{+}, m/z 537.4460)$ and phytoene $[M+H]^+(C_{40}H_{65}^{+}, m/z 545.5086)$.





