

The comparison refers to paired data, and t_{calc} is computed by the expression,³⁸

$$t_{calc} = \left| \bar{X}_A - \bar{X}_B \right| \sqrt{\frac{N(N-1)}{\sum (d_i - \bar{d})^2}}$$

where $\bar{X}_A$ and $\bar{X}_B$ are the average recoveries of L-fucose using standard method and proposed diamond paste electrodes method, respectively. N is number of paired samples, which are analyzed by both methods, d_i is the individual difference between the two methods for each sample, and $\bar{d}$ is the mean of all d_i values.