

When the adhesive gets under the skin

Sometimes there is more than just the sweet pulp hidden under the skin of a banana.

Have you ever noticed the stickers on the skin of the fruits in the supermarket? Since these stickers are removed before eating the fruit and the fruit is washed or peeled, no further attention is usually paid to them.

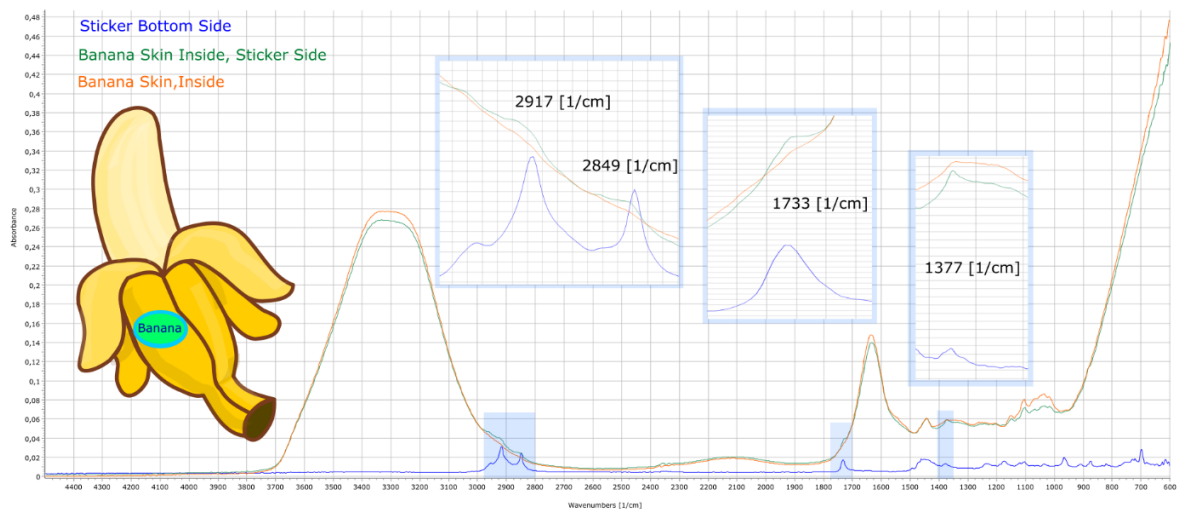
We wanted to find out more...

A series of infrared spectroscopic analyses were performed on a common banana to see if adhesive residues of the sticker can be detected under the skin of the banana, directly on the pulp.

Three measurements were made:

1. on the inside of the banana skin without sticker
2. on the inside of the banana skin under the sticker
3. adhesive side of the sticker

The FT-IR analysis of measurement No. 3 shows a specific molecular signature of acrylonitrile – a base material for industrial adhesives. The FT-IR measurement of sample No. 2 (inside of the banana skin directly under the label) shows the same characteristic molecular signature.



CONCLUSION:

The result is clear and remarkable at the same time. Adhesive bonds are present where they absolutely should not be - on the inside of the banana skin, directly on the pulp.