

# New test traces allergens quickly

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Institute of Food Safety and the chair group Physical Chemistry and Colloid Sciences, both of which are part of Wageningen University in the Netherlands, have together developed an allergen test. This test quickly, efficiently, and simultaneously measures twelve different allergens in food products. This is explained in a doctoral thesis by Sabine Rebe Raz.

Even trace amounts of [allergens](#) in [food](#) can create serious problems for allergic consumers. Manufacturers of food products are therefore required to list allergy information on a product's label. However, it is difficult to detect allergens in food, and the need for adequate methods of measurement is great. Earlier methods were not able to measure different allergens at the same time.

Recent developments in surface plasmon resonance (SPR) technology for rapid multi-analyte detection offer a promising alternative to existing methods. Imaging SPR is one of these new developments: with the help of micro-arrays of different antibodies on the surface of a sensor chip, different substances are displayed simultaneously, without the use of labels. The [test](#) can simultaneously detect twelve important allergens in confectionary in amounts which are relevant for real-world use. The allergens detected are peanuts, hazelnuts, milk, eggs, soya, almonds, lupins, pine [nuts](#), Brazil nuts, macadamia nuts, cashews, and pistachio nuts. In approximately ten minutes, a quantitative image of the presence of allergens in foods is produced.

Such detailed information makes it easier to make decisions affecting

the quality and safety of foods. That the method can be successfully applied is demonstrated by analysing confectionary from the supermarket and comparing the results to those obtained by a traditional method of analysis.

**More information:** Sabine Rebe Raz was awarded her doctorate from Wageningen University on Monday, 13 September.

Provided by Wageningen University

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