

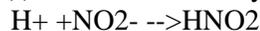
Revolution of Household Quantitative Food Testing - 'Nitralyzer'

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This research aims at finding a quick, simple and cheap domestic quantitative testing method for nitrite and nitrate in food. Food contributes 45-90% daily nitrate intake, which is much higher than from water. If we consume food containing high nitrite/nitrate like the people in China Gansu, it would cause cyanosis or even death.

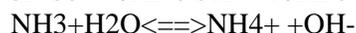
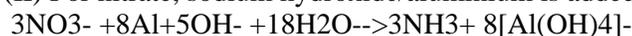
The nitrite/nitrate in food is extracted by water with SDS. The principle of this test kit is to detect gas liberated from nitrite/nitrate after addition of special reagents.

(I) For nitrite, solid hydrogen sulphate/sulphate buffer is added.



Nitrite level is determined by comparing amount of iodine formed quantitatively on KI-starch paper with calibrated standard colour chart provided.

(II) For nitrate, sodium hydroxide/aluminium is added.



Nitrate level is determined by comparing amount of hydroxide formed quantitatively on narrow range pH paper with calibrated standard colour chart.

This new method can be used on meat, vegetables, milk products and baby foods.

Unlike the tradition standard testing methods such as the Griess Reaction (Azo dye formation), cadmium reduction or UV-IC method, our method does not involve any toxic chemicals, expensive equipments, time consuming sample treatment, long operation time and prerequisite knowledge. This method is exceptionally accurate, its reliability and sensitivity has been confirmed by the Flow Injection Analysis. It costs USD 0.1 per test only.

I believe my testing kit will be available soon for household, food inspection unit and food production company to prevent nitrite/nitrate poisoning happening again.

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