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FOR IMMEDIATE RELEASE

## **Melamine in milk can be detected using near infrared spectroscopy**

Milk powder is one of the most heavily regulated food products in China, and is becoming increasingly so in the rest of the world. Milk powder, especially when it comprises an ingredient of baby formula milk powder, has attracted considerable attention. Recently, several thousand babies in China became ill, having suffered acute kidney failure, with several fatalities, after being fed formula milk powder contaminated with the industrial chemical melamine. It is possible that melamine accumulates in the body and causes toxicity problems—basically damaging the kidneys and forming stones. Infants fed regularly with milk powder containing melamine will be particularly susceptible to these effects.

Professor Bingren Xiang and his student Chenghui Lu at the China Pharmaceutical University, Key Laboratory of Drug Quality Control and Pharmacovigilance, Ministry of Education, Nanjing, China, have developed a novel and rapid method for detecting pure melamine in milk powder which is detailed in their publication in the latest edition\* of the *Journal of Near Infrared Spectroscopy (JNIRS)*. They have used using near infrared (NIR) spectroscopy and have shown that it is feasible to examine milk powder rapidly and non-destructively with a detection limit lower than 1 ppm. This accuracy compares favourably with the present U.S. Food and Drug Administration (FDA) limit for melamine in milk products of no more than 2.5 ppm and with the provisional limits announced by the Chinese government for melamine in adult milk products of no more than 2.5 ppm and in infant milk products of no more than 1 ppm.

Based on the results, it was concluded that NIR spectroscopy could be used as a rapid and accurate method for detecting pure melamine in milk powder.

\**J. Near Infrared Spectrosc.* **17(2)**, 59–67 (2009), doi: 10.1255/jnirs.829,  
[http://www.impublishations.com/nir/abstract/J17\\_0059](http://www.impublishations.com/nir/abstract/J17_0059)

## **Information for Editors (not for publication)**

### *About Journal of Near Infrared Spectroscopy*

The *Journal of Near Infrared Spectroscopy (JNIRS)* is a peer review journal published by IM Publications ([www.impublications.com](http://www.impublications.com)). It publishes high-quality, original research papers on all aspects of near infrared (NIR) spectroscopy and technology. NIR spectroscopy is used widely in the food and agriculture, pharmaceutical and chemical industries, and is finding increasing applications in other areas including medicine and the environment.

Editors and journalists may request a copy of the paper; contact Ian Michael, IM Publications, Phone: +44-1243-811334, Fax: +44-1243-811711, E-mail: [ian@impublications.co.uk](mailto:ian@impublications.co.uk)

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