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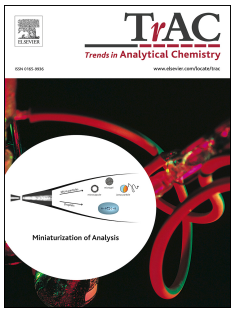

Quantification techniques for important environmental contaminants in milk and dairy products

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Quantification techniques for important environmental contaminants in milk and dairy products

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ABSTRACT

The growing demands of milk and milk products necessitated the use of various kinds of chemicals including antibiotics, urea, and hormones. Although they are essential in the bulk production of milk, they can pose serious health issues not only to animals but also to consumers. To identify and quantify various contaminants (e.g., antibiotics, pesticides, and polycyclic aromatic hydrocarbons) in milk and its related products, reliable instrumental techniques need to be established. This review was organized to summarize the analytical techniques currently available for the identification and quantification of contaminants in milk and dairy products. To this end, this review emphasizes the compositional diversity of various contaminants in milk and its products. This study may provide valuable insights into the essential protocols for the quantification of dairy-related contaminants while helping make the fast and firm decisions needed for the legislation, regulations, and health care.

Keywords: Milk; Infant formula; Contaminants; Antibiotics; Pesticides; Polycyclic aromatic hydrocarbons; Quality assurance; Instrumental techniques; Human health

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