

Comparison of two microdiffusion methods used to measure ionizable fluoride in cow's milk

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Abstract:

Two microdiffusion methods for measuring ionizable fluoride in cows' milk have been compared. The comparison includes diffusion time, amount of fluoride in spiked and unspiked milk samples and the effect of aluminium as an interfering ion. This work uses an acid diffusion technique involving hexamethyldisiloxane at room temperature and acid diffusion at 60 degrees C in the oven for 20 h. A significant difference was found in diffusion time and in the effect of aluminium ions. There was no significant difference in the amount of fluoride found in the milk samples using the two microdiffusion methods.