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Quantification of formaldehyde in hair creams using methods of TLC.

A significant amount of research has been done to show that exposure to the colorless gas formaldehyde can lead to a variety of unwanted side effects. Many hair products claim to be "formaldehyde-free," however, when these products are used, studies have shown that formaldehyde is, in fact, being released and therefore exposing the user to an unknown concentration of formaldehyde. Using the quantitative method, thin-layer chromatography (TLC), the color density of the violet spots developed during the process using chromotropic acid, sulfuric acid, and a formalin solution at a variety of different concentrations will be determined. Once the density is determined, the method will be repeated to determine if various hair creams that claim to be "formaldehyde-free" are actually free of the gas.