

Mercury speciation analysis for the investigation of the interaction of thimerosal with blood components

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We investigated the interaction of thimerosal, an ethylmercury-containing preservative used in some vaccines, with blood components. For this reason we incubated physiological simulation solutions and model proteins with thimerosal, methyl mercury and mercury (II) chloride. Speciation analysis, using the hyphenated techniques LC/ICP-MS and LC/ESI-MS was applied to gain element-selective and molecular information. The complementary use of element-selective and molecular speciation techniques allowed the identification of EtHg-biothiol adducts under physiological conditions^[1].

- [1] Trümpler S., Lohmann W., Meermann B., Buscher W., Sperling M., Interaction of Thimerosal with proteins-ethylmercury adduct formation of human serum albumin and β -lactoglobulin A, *Metallomics* **2009**, 1, 87-91.