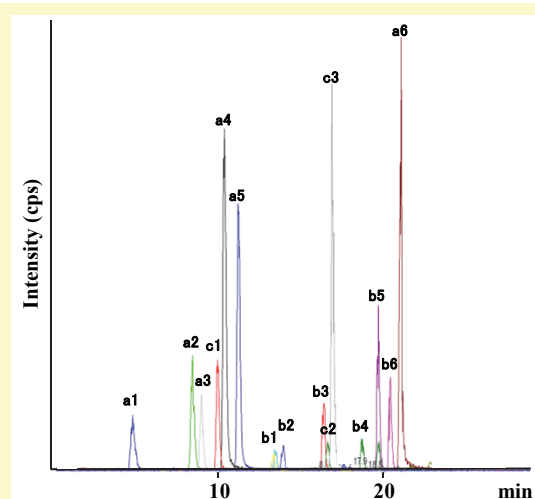
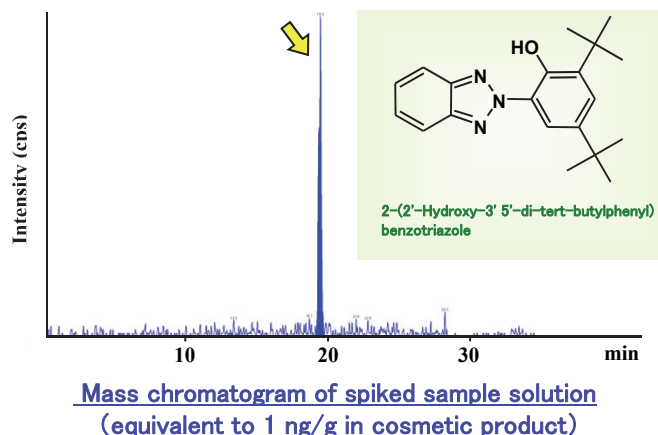


Analysis of trace restricted substance in cosmetic materials with LC/MS/MS

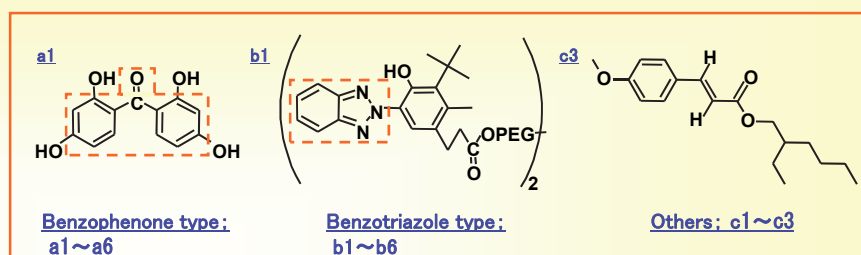
Strict restriction is imposed on cosmetics to prevent hazardous substances from inclusion and contamination throughout all process (raw materials procurement, manufacturing and preservation). We show the applications to analyze the ultratrace components with LC/MS/MS.

1. Ultraviolet absorbers

2-(2'-Hydroxy-3' 5'-di-tert-butylphenyl)benzotriazole is one of the ultraviolet absorbers and the strictly restricted substance under Japanese law. LC/MS/MS is able to detect and quantitate the trace components in the cosmetics, because of its high sensitivity and highly selective quantitative capability.



Simultaneous analysis of ultraviolet absorbers
(Reference standard solutions: approx. 10 ng/mL each)



There are many kinds of ultraviolet absorbers such as benzophenone and benzotriazole type in chemical products. LC/MS/MS is able to simultaneously analyze multi components with high sensitivity and selectivity.

2. NDELA (N-nitrosodiethanolamine)

NDELA (N-Nitrosodiethanolamine) is identified as one of the carcinogenic substances. After the optimization of pretreatment procedures and measuring conditions, we determined the NDELA concentration in the commercialized cosmetic product (50ng/g NDELA artificially added sample).

