

A change required for Equation 1 (Manuscript #: egusphere-2025-1909)

Dear Editor,

While proofreading our manuscript, we identified an error in Equation 1 in the main text, where the square root symbol was inadvertently included.

$$\mu = \sqrt{m_1 * m_2 / (m_1 + m_2)} \quad (1)$$

This equation should be revised as:

$$\mu = m_1 * m_2 / (m_1 + m_2) \quad (2)$$

The revised equation aligns with the definition of the reduced mass, which was used as a proxy for the effective mass loadings of the mixed PM_{2.5} extracts during the matrix effect evaluation. We confirm that the reduced mass values presented in Figure S2 were correctly calculated, so only Equation 1 displayed above needs to be revised (i.e., removing the square root symbol).

We apologize for any inconvenience this may cause and request your approval for this change.

Sincerely yours,

Yue Zhao

On behalf of all co-authors