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Butan-1-ol as an extractant solvent in dispersive liquid-liquid microextraction in the spectrophotometric determination of aluminium.

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Highlights

- Determination of Al-quercetin complex after liquid phase microextraction procedure.
- Spectrophotometric method for aluminium determination in distinct samples.
- Butan-1-ol as innovative solvent extractor.
- Butano-1-ol as a potential extractant and disperser solvent.
- Aluminium in saline concentrate for hemodialysis.

ABSTRACT

Determining aluminium ions at $\mu\text{g}\cdot\text{L}^{-1}$ scale currently requires either costly analytical techniques such as inductively coupled plasma, and/or graphite furnace atomic absorption spectrometry. Dispersive liquid-liquid microextraction (DLLME) is designed to promote separation and preconcentration, thus making it possible to determine the analyte of interest without significant matrix influence. This study was aimed at the development of a spectrophotometric method to determine Al^{3+} after microextraction of its complex with quercetin. Butan-1-ol was used as a novel extractant solvent in the DLLME process. The

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