

Accepted Manuscript

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PII: S0021-9673(18)30015-3
DOI: <https://doi.org/10.1016/j.chroma.2018.01.015>
Reference: CHROMA 359141

To appear in: *Journal of Chromatography A*

Received date: 1-11-2017
Revised date: 3-1-2018
Accepted date: 7-1-2018

Please cite this article as: Wan-yi Gu, Mei-xian Liu, Bao-qing Sun, Ming-quan Guo, Jian-lin Wu, Na Li, Profiling of polyunsaturated fatty acids in human serum using off-line and on-line solid phase extraction-nano-liquid chromatography-quadrupole-time-of-flight mass spectrometry, *Journal of Chromatography A* <https://doi.org/10.1016/j.chroma.2018.01.015>

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Profiling of polyunsaturated fatty acids in human serum using off-line and on-line solid phase extraction-nano-liquid chromatography-quadrupole-time-of-flight mass spectrometry

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Highlights

- A novel off-line and on-line SPE-nano-LC-Q-TOF-MS approach was developed for PUFAs.
- Good recovery and matrix effect were achieved using off-line and on-line SPE.
- Good separation and sensitivity were obtained by nano-LC-MS.
- LOQs for 51 PUFAs were between 0.006 and 4 pg.
- Potential biomarkers in allergic patients were determined.

ABSTRACT

Polyunsaturated fatty acids (PUFAs) play a pivotal role in the biological effects, and are the potential biomarkers for some

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