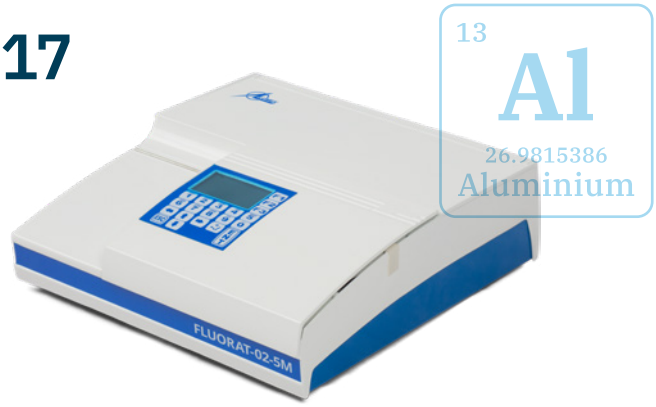
Fluorat-02

Fluorimetric & photometric liquid analyzer

Fluorimetric determination of **aluminium** in pharmaceuticals according to **Ph. Eur. 2.4.17**



INTRODUCTION

Fluorimetry/Fluorometry is a method, which uses the measurement of the intensity of the fluorescent light emitted by the substance. Fluorimetry is included in all modern pharmacopoeias, including:

European Pharmacopoeia (10th Edition, 2019)	Ph. Eur. 2.2.21. Fluorimetry
British Pharmacopoeia (2020 Edition)	Ph. Br. Vol. IV. Appendix II E. Fluorescence spectrophotometry
US Pharmacopoeia (USP 43–NF 38, 2019)	USP General Chapters: <853> Fluorescence spectroscopy
Japanese Pharmacopoeia (XVII Edition, 2017)	JP XVII. General tests. 2.22. Fluorometry
The International Pharmacopoeia (9th Edition, 2019)	Ph. Int. 1.9. Fluorescence spectrophotometry
The State Pharmacopoeia of the Russian Federation (XIV Edition, 2018)	GPM.1.2.1.1.0006.15. Fluorometry
EEU Pharmacopoeia (1st Edition, 2020)	EEU Pharmacopoeia. GPM 2.1.2.20. Fluorometry

METHOD

Fluorimetry is widely used to determine the aluminium impurity in pharmaceuticals using hydroxyquinoline, for example by Ph. Eur. 2.4.17. The fluorimetric method is based on formation of a complex compound between aluminium ion and hydroxyquinoline and extraction with chloroform followed by measurement of fluorescence intensity of the extract (excitation wavelength 392 nm and emission wavelength 518 nm) using Fluorat-02 analyzer.

LUMEX INSTRUMENTS OFFER

- **Fluorat-02** filter fluorimeter
- **FluoRate software** *(complies with all requirements of FDA 21 CFR Part 11 & is suitable for use within analytical systems complying recommended principles of GMP)*
- Equipment **qualification (IQ/OQ)**
- Lumex Instruments **Quick Start Kit for Al determination in acc. with Ph. Eur. 2.4.17. ALUMINIUM**, incl. light filters, reagents* (Al standard solution, 8-hydroxyquinoline p.a.), quartz cell
- **Training**

** – the reagents were tested for suitability for analysis*

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