

# TLC in the experimental preparation of future chemistry teachers

*Richtr Václav, Váňová Anna, Žemlička Matěj*

University of West Bohemia, Faculty of Education, Plzeň, Czech Republic

## *Abstract*

Thin-layer chromatography (TLC) can also use specially modified materials. Due to its simplicity, speed of execution, and relatively lower costs, it has also found its place in chemistry education. Future chemistry teachers should acquire both theoretical knowledge and practical skills related to this method.

TLC is included in the regular teaching (laboratory exercises in organic chemistry) at the Department of Chemistry at the University of West Bohemia in Pilsen and is an important component in processing certain qualification works. Currently, it is used as both an analytical and preparative method. For analytical chromatography, commercially supplied chromatographic material or custom-made plates are used. For preparative chromatography, the chromatographic layers are prepared in the laboratory. As the work with small quantities of substances is gaining importance, preparative TLC is also becoming significant, as it can be developed in several stages as follows.

- 1) Preparation of the adsorption layer
- 2) Application of the separated material
- 3) Development of the chromatogram
- 4) Detection and isolation of components

The significance and execution of TLC are evident from the comprehensive material (Richtr, Kraitr, 2004). Extensive publications (Sherma, Fried, 2003) are available for those interested in delving deeper into the method.

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## *References*

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## *Keywords*

Thin-layer chromatography, analytical and preparative chromatography