Editorial

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Dear Colleagues,

On August 6, *Rudolf E. Kaiser*, the founding father of the Journal of Planar Chromatography (JPC), passed away. The chromatography community loses a brilliant scientist who contributed a lot to high-performance thin-layer chromatography (HPTLC), both in practice and in theory. As a person, we lose a bright mind, smart and kind, humorous, mischievous, and always full of ideas. To honor the founder of JPC, we are planning a special JPC issue to be published as the third issue in 2022. Contributions for this special issue should cover the entire spectrum of HPTLC and should be submitted at the latest by the end of February 2022.

The present issue of JPC is the fourth in 2021 and contains ten original research papers. All publications have been authored by leading scientists in the field of HPTLC and thin-layer chromatography (TLC). The range of topics presented is rather narrow. We have a single publication on the validated quantification of two synthetic chemicals in a tablet dosage form and nine papers on ingredients in herbal drugs. The last three papers in this issue do not describe quantification methods, but perform simple TLC profiling and identification using ultraviolet–visible (UV–Vis), mass spectrometry (MS), and staining methods.

The first paper is by *D. A. Shah et al.* and describes the simultaneous determination of montelukast and bilastine in a tablet dosage form for the treatment of allergic rhinitis. The title is **“Thin-layer chromatographic–densitometric method of analysis for the estimation of montelukast and bilastine in combination”**. In the next six papers, HPTLC is used to quantify marker substances in drugs to detect variations in the samples that may be due to different origins of the medicinal materials, different growing environments,

different harvest times, or different locations where the plants were collected. Initial sample processing and storage conditions can also play a role.

The second paper in this JPC issue describes the quantification of four hydroxynaphthoquinones by the group of *J. Li*. The title of the publication is **“Determination of four kinds of hydroxynaphthoquinone ingredients in the root of *Arnebia euchroma* (Royle) Johnst. from different batches in Xinjiang Province by using high-performance thin-layer chromatography”**. The following paper, **“Qualitative and quantitative analyses of gallic acid and orientin and orientin-2”-O- β -L-galactoside in Chinese medicine compound antibacterial gel by high-performance thin-layer chromatography”** is by *M. Jiang, J. Liu* and *S. Tian* and reports the quantification of three compounds by HPTLC. The paper by *X. Zhou et al.*, **“Qualitative and quantitative analyses of quercetin and isorhamnetin in *Hippophae rhamnoides* L. fruits hydrolysis products by high-performance thin-layer chromatography”** uses two compounds for plant characterization. The paper **“Densitometric high-performance thin-layer chromatographic fingerprinting method for the determination and quantification of plumbagin in *Plumbago zeylanica* L. roots”** by *P. Kushwaha et al.* uses quantification of the single compound plumbagin for the characterization of *Plumbago zeylanica* L. roots. The quantification of piperine by HPTLC is described in **“High-performance thin-layer chromatographic method development and determination of bio-enhancer from *Piper trichostachyon*: an ethnomedicinal plant”**. This paper is from the group of *P. J. Hurkadale*. In the following work, the group of *D. S. Chopra* quantifies the well-known compound quercetin in the leaves of *Coriandrum sativum* L. The title of the work is **“Development of a validated**

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high-performance thin-layer chromatography method for standardization of aqueous extract from the leaf of *Coriandrum sativum* L.”.

M. Deepak *et al.* describes the “**Evaluation of the purification process of *Croton tiglium* L. seeds by chromatographic methods**”. Different solvent extracts of purified and untreated samples were compared by HPTLC profiling and the differences were identified by selective plate staining. The group of T. M. Mokgehele used TLC and UPLC–QTOF–MS for the identification of nine UV–fluorescent compounds from *S. retroflexum*. The title of the paper is “**Application of TLC and UHPLC–QTOF–MS for the identification of aqueous two-phase extracted UV–fluorescent metabolites from *Solanum retroflexum*”**”. Thi Kieu Tiên Do, René De Vaumas, and Eike Reich are responsible for the last paper of this JPC issue. They selected the most appropriate development solvents and detection methods for a collection of 19 iridoids. The paper contains peak profiles, UV spectra, and images of chromatograms prior to and after derivatization with anisaldehyde reagent and vanillin reagents. The title of the paper is “**Phytochemical profiling of iridoids by high-performance thin-layer chromatography**”.

The current JPC issue shows that HPTLC is preferred for the analysis of herbal medicines and their standardization due to high throughput and cost-effectiveness.

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(Editor-in-Chief)

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