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Nota di contenuto	Applied Thin-Layer Chromatography; Preface to the Second English Edition; Preface to the First English Edition; Preface to the First German Edition; Contents; List of Tables; 1 Introduction; 1.1 What Does TLC Mean?; 1.2 When Is TLC Used?; 1.3 Where Is TLC Used?; 1.4 How is the Result of a TLC Represented?; 1.4.1 Retardation Factor; 1.4.2 Flow Constant; 1.4.3 Other TLC Parameters; 1.5 What Kinds of Reference Substances Are Used in TLC?; 1.6 The Literature on TLC; 1.6.1 General Literature; 1.6.1.1 Books and Information Sheets in German; 1.6.1.2 Books in English; 1.6.1.3 Book in Another Language 1.6.2 Journals1.6.2.1 German Language Journals Containing Articles on TLC (Selection); 1.6.2.2 English Language Journals on TLC; 1.6.2.3 English Language Journals Containing General Articles on Chromatography (Selection); 1.6.3 Abstracts; 1.6.4 Pharmacopoeias; 2 Precoated Layers; 2.1 Precoated Layers - Why?; 2.2 What Are Precoated Layers Composed Of?; 2.2.1 Sorbents; 2.2.2 Supports for Stationary Phases; 2.2.3 Additives; 2.3 What Types of Precoated Layers Are There?; 2.4 What Are the Uses of Precoated Layers?; 2.5 Criteria for the Selection of Stationary Phases in TLC

2.5.1 How Can the Choice of the Stationary Phase Be Made? 2.5.2 How Can the Recommendations for Stationary Phases Found in Pharmacopoeias Be Applied to Precoated Layers?; 2.6 Effect of the Stationary Phase When Mobile Phases Are Identical; 2.7 Advice on the Ordering and Storage of Precoated Layers; 2.8 Problems in the Naming and Arrangement of Precoated Layers; 3 Before the TLC Development Process; 3.1 Handling of Precoated Layers; 3.1.1 Film and Foil; 3.1.2 Glass Plates; 3.2 Prewashing; 3.3 Activation; 3.4 Conditioning; 3.5 Impregnation; 3.5.1 Impregnation by Dipping 3.5.2 Impregnation by Spraying 3.5.3 Impregnation by Predevelopment; 3.6 Application of Samples; 3.6.1 Manual Application of Samples; 3.6.2 Semiautomatic Application; 3.6.3 Fully Automatic Application; 3.7 Positioning of the Samples; 3.8 Drying Before the Development; 4 Solvent Systems, Developing Chambers and Development; 4.1 Solvent Systems; 4.1.1 Choice of Solvent Systems; 4.1.2 Preparation and Storage of Solvent Systems; 4.1.3 Problematical Solvent System Compositions; 4.2 TLC Developing Chambers; 4.2.1 What Types of TLC Developing Chambers Are There? 4.2.1.1 TLC Chambers for Vertical Development 4.2.1.2 TLC Developing Chambers for Horizontal Development; 4.2.2 Influence of the Chamber Atmosphere; 4.2.2.1 The Unsaturated N-Chamber; 4.2.2.2 The Saturated N-Chamber; 4.2.3 Influence of Temperature in Chromatography; 4.2.4 Location and Labeling of TLC Developing Chambers; 4.3 Development of Thin-Layer Chromatograms; 4.3.1 One-Dimensional Thin-Layer Chromatography; 4.3.1.1 Vertical Development; 4.3.1.2 Horizontal Development; 4.3.2 Two-Dimensional Thin-Layer Chromatography; 4.4 Drying After Development; 5 Evaluation Without Derivatization 5.1 Direct Visual Evaluation

Sommario/riassunto

Thin-layer chromatography (TLC) is a powerful, fast and inexpensive analytical method. It has proven its usefulness in pharmaceutical, food and environmental analysis. This new edition of the practical TLC guide features a completely revised chapter on documentation, now including the use of digital cameras. Selected new sorbents and instruments are also introduced. Why has the prior edition been successful? All steps of the analytical procedure are clearly explained, starting with the choice of a suitable TLC technique and ending with data evaluation and documentation. Special emphasis is