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Nota di contenuto	Split and Splitless Injection for Quantitative Gas Chromatography; Contents; A Syringe Injection into Hot Vaporizing Chambers; 1. Introduction; 1.1. Syringe Injection; 1.2. Sample Evaporation inside the Needle; 1.2.1. Inaccurate Sample Volume; 1.2.2. Discrimination against High Boilers; 1.2.3. Poor Reproducibility; 1.2.4. Degradation of Labile Solutes; 1.3. Conclusions; 1.3.1. Fast Autosampler?; 1.3.2. Suppressing Evaporation inside the Needle; 1.3.3. Thermospray; 2 . Syringes; 2.1. Plunger-in-Barrel Syringes; 2.1.1. Plungers; 2.1.2. Plunger Guides; 2.2. Plunger-in-Needle Syringes 2.3. Syringe Needles2.3.1. Dimensions; 2.3.2. Needle Tips; 2.3.3. Fixed versus Removable Needles; 2.4. Cleaning of Syringes; 2.4.1. Basic Rules; 2.4.2. Cleaning Procedures; 2.4.3. Plugged Needles; 2.4.4. Blocked Plungers; 3 . Evaporation Inside the Needle; 3.1. The Three-Step Model; 3.2. Models of Evaporation inside the Needle; 3.2.1.

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4.2. Communicating "Sample Volumes"4.3. Effects on Quantitative Analysis; 5 . Syringe Needle Handling Minimizing Discrimination; 5.1. Definitions of Techniques; 5.2. Experimental Determination of Losses in the Needle; 5.2.1. Method with Two Instruments; 5.2.2. Experiment with a Single Instrument; 5.2.3. Test During Routine Analysis; 5.3. Comparison of Needle Handling Techniques; 5.3.1. Filled Needle Injection; 5.3.2. Slow Injection; 5.3.3. Cool Needle Injection; 5.3.4. Hot Needle Injection; 5.3.5. Solvent Flush Injection; 5.3.6. Air Plug Injection; 5.3.7. Sandwich Injection
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10.5. Evaporation in the Injector

Sommario/riassunto

This comprehensive and unique handbook of split and splitless injection techniques has been completely revised and updated. This new edition offers:- New insights concerning sample evaporation in the injector- Information about matrix effects- A new chapter on injector designThe real processes within the injector are for the first time visualized and explained by the CD-ROM included in the book. Furthermore the reader will understand the concepts of injection techniques and get a knowledge of the sources of error. The handbook also includes many practical guidelines.<br
