

Laboratory-Software

for

- **Control of the FIA system**
- **Data acquisition from the FIA channels**
- **Presentation and evaluation of the measurement data**
- **Data base for single sample and sample series results**
- **Data archiving**

The FIA system with **FIA modula** and **FIA compact** modules by **MLE** is controlled by PC using the windows-based software

FIA control

of **Dr. Herbert Steiner Consulting** company.

Control of the FIA system

The FIA system can be single or multiple channel. Control of the FIA system is effected by the **FIA control** software. This software allows for setting up the system, creating analytical methods completely with start up and shutdown routines.

FIA control also controls the autosampler together with its autodilution function.

FIA control organizes the placement of samples, standards and controls on the sample tray.

The FIA system is primarily targeted towards routine analysis. However, it is also suited to the development of analytical methods.

Data acquisition from FIA modula / FIA compact

- Data acquisition and management for all analytical channels
- Data storage in a relational database
- Presentation of the analytical peak of the last measurement
- Status indication for the connected modules
- Connection between FIA system and PC via serial RS 232 interface

Presentation and evaluation of the measured data

- Selection by method, date and time
- Presentation of the analytical peaks including zoom possibilities
- Labelling of faulty and outlying results
- Presentation of the calibration curve in different modes
- Manipulation of calibration results (labelling of outliers, changing of the calibration function)
- Print protocols for calibration, sample series results (short and long versions), sample positioning on the tray
- Copying of protocols into separate files
- Evaluation of control sample results
- Archiving of sample and calibration results
- Customized presentation by means of filtering and sorting functions

General Requirements:

Hardware: Standard PC with Pentium-Processor (min. 1 GB Main memory)
 Software: Windows 7 / Windows Vista / Windows XP
 Database: Relational database in Microsoft Access format
 (Microsoft Access not required)
 Operation: Typical windows user interface

The image displays three screenshots of the FIA control software interface. The top-left screenshot shows the 'Messergebnisse' (Measurement Results) table with columns for Nr., Injekt., Typ., Teller, Probenname, Vorve, Verd., Methode, Extinktion, and Ergebnis. The top-right screenshot shows the 'FIA control' main window with 'Formaldehyd' and 'Ammonium' selected, displaying peak graphs and 'Letzte Injektion' data. The bottom screenshot shows the 'Kalibrierung' (Calibration) window for 'Methode: 1057 - Ammonium 8 N', featuring a linear calibration curve graph and a table of calibration values.

Nr.	Injekt.	Typ.	Teller	Probenname	Vorve	Verd.	Methode	Extinktion	Ergebnis
1	1	1	1	Phenololösung A: 1.5 mg/l	1	1	Foma_Sbb	0.8279	1.484 mg/l
1	2	1	1	Phenololösung A: 1.5 mg/l	1	1	Foma_Sbb	0.8457	1.516 mg/l
2	1	2	2	Phenololösung A: 0.5 mg/l	1	1	Foma_Sbb	0.2633	0.507 mg/l
2	2	2	2	Phenololösung A: 0.5 mg/l	1	1	Foma_Sbb	0.2741	0.490 mg/l
3	1	3	3	Phenololösung A: 0.2 mg/l	1	1	Foma_Sbb	0.1146	0.204 mg/l
3	2	3	3	Phenololösung A: 0.2 mg/l	1	1	Foma_Sbb	0.1123	0.200 mg/l
4	1	4	4	Phenololösung A: 0.05 mg/l	1	1	Foma_Sbb	0.0293	0.051 mg/l
4	2	4	4	Phenololösung A: 0.05 mg/l	1	1	Foma_Sbb	0.0280	0.049 mg/l
5	1	5	5	Phenololösung A: 0.02 mg/l	1	1	Foma_Sbb	0.0114	0.019 mg/l
5	2	5	5	Phenololösung A: 0.02 mg/l	1	1	Foma_Sbb	0.0112	0.019 mg/l
6	1	6	6	Foma_Ob(p): 1.5 mg/l(KP)	1	1	Foma_Sbb	0.8346	1.496 mg/l
6	2	6	6	Foma_Ob(p): 1.5 mg/l(KP)	1	1	Foma_Sbb	0.8476	1.530 mg/l
7	1	7	7	Weisseitz	1	1	Foma_Sbb	0.0895	0.143 mg/l
7	2	7	7	Weisseitz	1	1	Foma_Sbb	0.0895	0.122 mg/l
8	1	8	8	Ebe	1	1	Foma_Sbb	0.1222	0.218 mg/l
8	2	8	8	Ebe	1	1	Foma_Sbb	0.1223	0.218 mg/l
9	1	9	9	Uder	1	1	Foma_Sbb	0.0968	0.172 mg/l
9	2	9	9	Uder	1	1	Foma_Sbb	0.0963	0.172 mg/l
10	1	10	10	Foma_Ob(p): 0.02 mg/l(K)	1	1	Foma_Sbb	0.0117	0.020 mg/l
10	2	10	10	Foma_Ob(p): 0.02 mg/l(K)	1	1	Foma_Sbb	0.0110	0.018 mg/l

Nr.	Konz.	Ext.	Anpass.	Gültig
1	5	0.6517	99.83%	✓
2	5	0.6539	100.15%	✓
3	2	0.2464	100.50%	✓
4	2	0.2454	100.12%	✓
5	1	0.1179	98.94%	✓
6	1	0.1180	99.03%	✓
7	0.5	0.0582	100.02%	✓
8	0.5	0.0578	99.40%	✓
9	0.2	0.0228	102.79%	✓
10	0.2	0.0229	103.23%	✓