1 Methods

1.1 Chemicals & Instruments

Chemicals

The used instruments are listed in in table 1.1.

Table 1.1: Used laboratory Instruments

Instrument	**Model**	**Manufacturer**
Centrifuges	Megafuge 1.0 (R)	Heraeus Instruments GmbH, Hanau, Germany
	Centrifuge 5417 C	Eppendorf AG, Hamburg, Germany
	RC6 Plus Centrifuge	Sorvall Ltd., Delaware, USA
Lyophilizator	LyoVac GT2	Leybold GmbH, Cologne, Germany
Spectrophotometer	BioMate 3S	Thermo Fisher, Waltham, USA
Rotary Evaporator	Hei-Vap Precision	Heidolph Instruments GmbH, Schwabach, Germany
	Rotavapor RE + PC 3001 VARIO Pump	Büchi Labortechnik AG, Flawil, Switzerland + vacuubrand GmbH, Essen, Germany

High performance liquid chromatography (HPLC) systems were manufactured by

AgilentThe components of the HPLC systems are listed in Table 1.2.

Table 1.2: Components of HPLC systems

	Component	**Description**
Agilent 1100 Series	G1322A	Degasser
	G1311A	Quaternary Pump
	G1313A	Autosampler
	G1316A	Column Compartment
	G1315B	Diode Array Detector
Agilent 1200 Series	G1379B	Degasser
	G1312A	Binary Pump
	G1367B	Autosampler
	G1330B	Thermostat
	G1316A	Column Compartment
	G1315B	Diode Array Detector
Agilent 1260 Infinity	G4225A	Degasser
	G1312C	Binary Pump
	G1329B	Autosampler
	G1330B	Thermostat
	G1316A	Column Compartment
	G1315D	Diode Array Detector

1.2 Strain Cultivation

1.3 Sample Preparation

1.4 Chromatographic Methods

1.4.1 Thin Layer Chromatography

1.4.2 Ion Exchange Chromatography

1.4.3 Hydrophilic Interaction Chromatography

Hydrophilic Interaction Chromatography (HILIC) with performed with a 4,6 x 250 mm ZIC-HILIC Column (Merck). It features zwitterionic, functional groups on poly(etherether ketone) (PEEK) material. 10 mM Ammonium acetate in Milli-Q H_2O was used as solvent A, while Acetonitrile comprised solvent B. Detailed method descriptions regarding solvent composition, flow and duration are listed in the appendix.

1.4.4 High Performance Liquid Chromatography

1.4.5 Mass Spectrometry

A test table should be here

Table 1.3: A test table for HPLC Methods

	Component	**Description**
HPLC Parameters	System	
	Column	
	Injection volume	50 µL
	Flow	
	Temperature	
	Solvents	Solvent A: H_2O
		Solvent B: Acetonitrile
	Method	Isocratic, 80 % B
		60 min
MS Parameters	Capillary Voltage	3500 V
	Temperature	350 °C
	Target Mass	250 m/z

2 Appendix

2.1 HPLC Methods