

DFG S 19

Extraction with Aceton

Liquid-liquid extraction (Cyclohexan/EE or Dichlormethan)

Concentrate organic phase

Gel permeation chromatography (GPC)

clean up with silica gel

Elute with different solvents



ChemElut

Extraction with Methanol

Liquid-liquid extraction on to diatomeous earth, elution with CH₂Cl₂

Concentrate organic phase

solve up with MeOH



LC-MS/MS

QuEChERS

Extraction with Acetonitril

Liquid-liquid extraction Phase separation after salt addition

Freeze out of fat (optional)

clean up by dispersive SPE with PSA (GCB, C18)

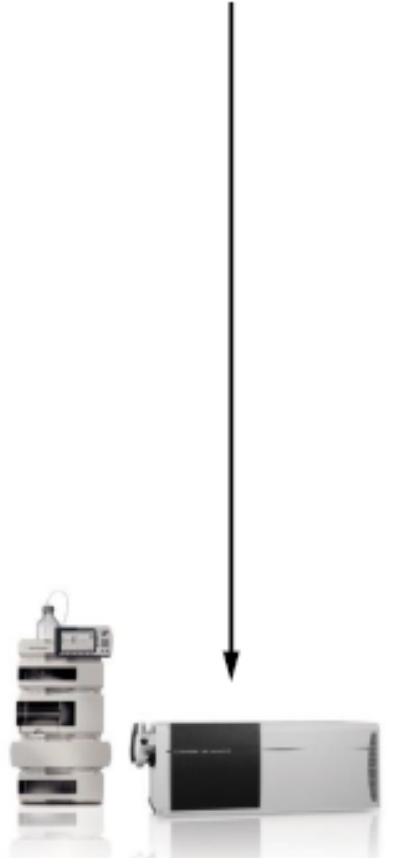
Acidify



LC-MS/MS

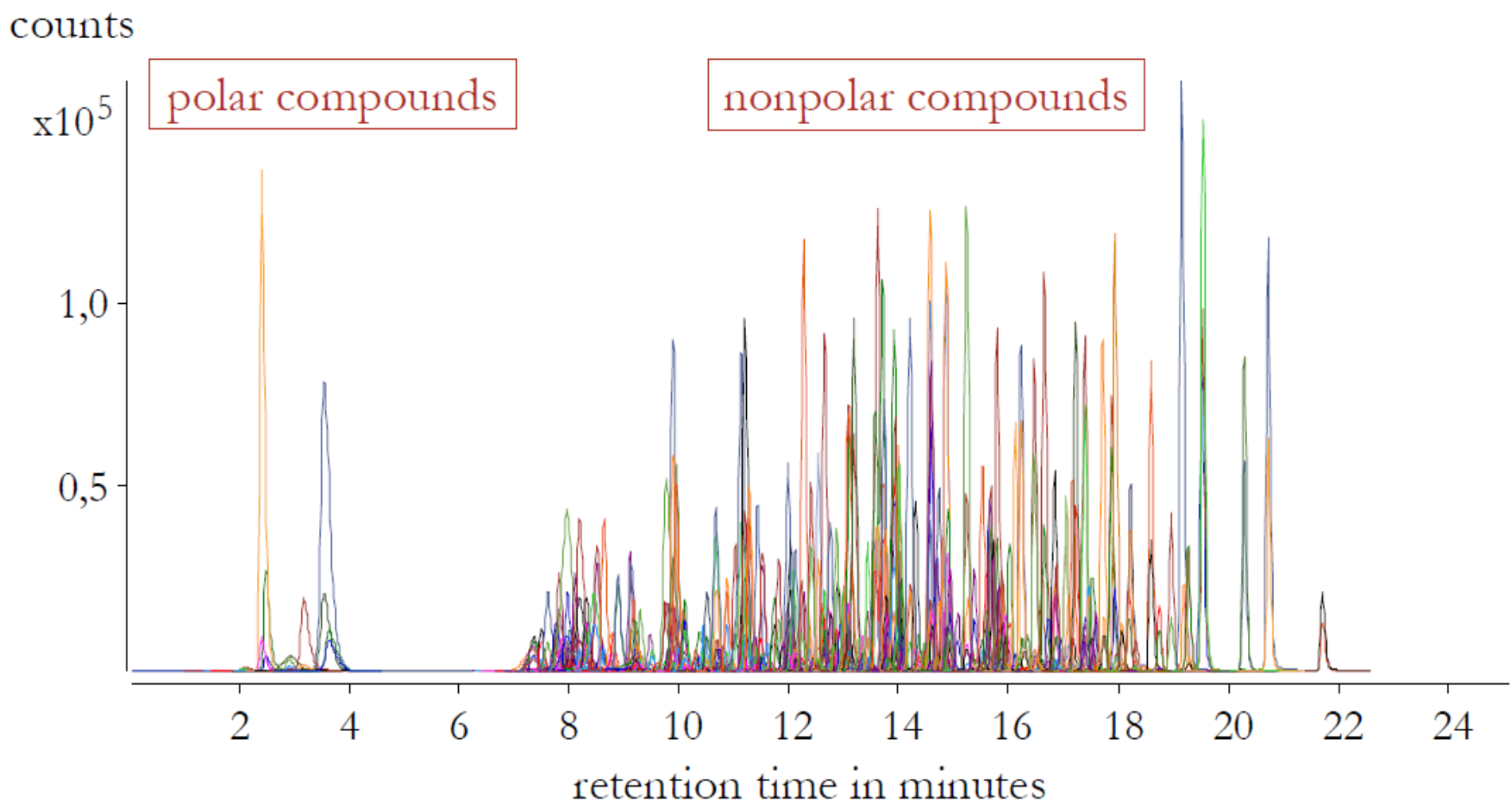
EPICS

Extraction with Acetonitril

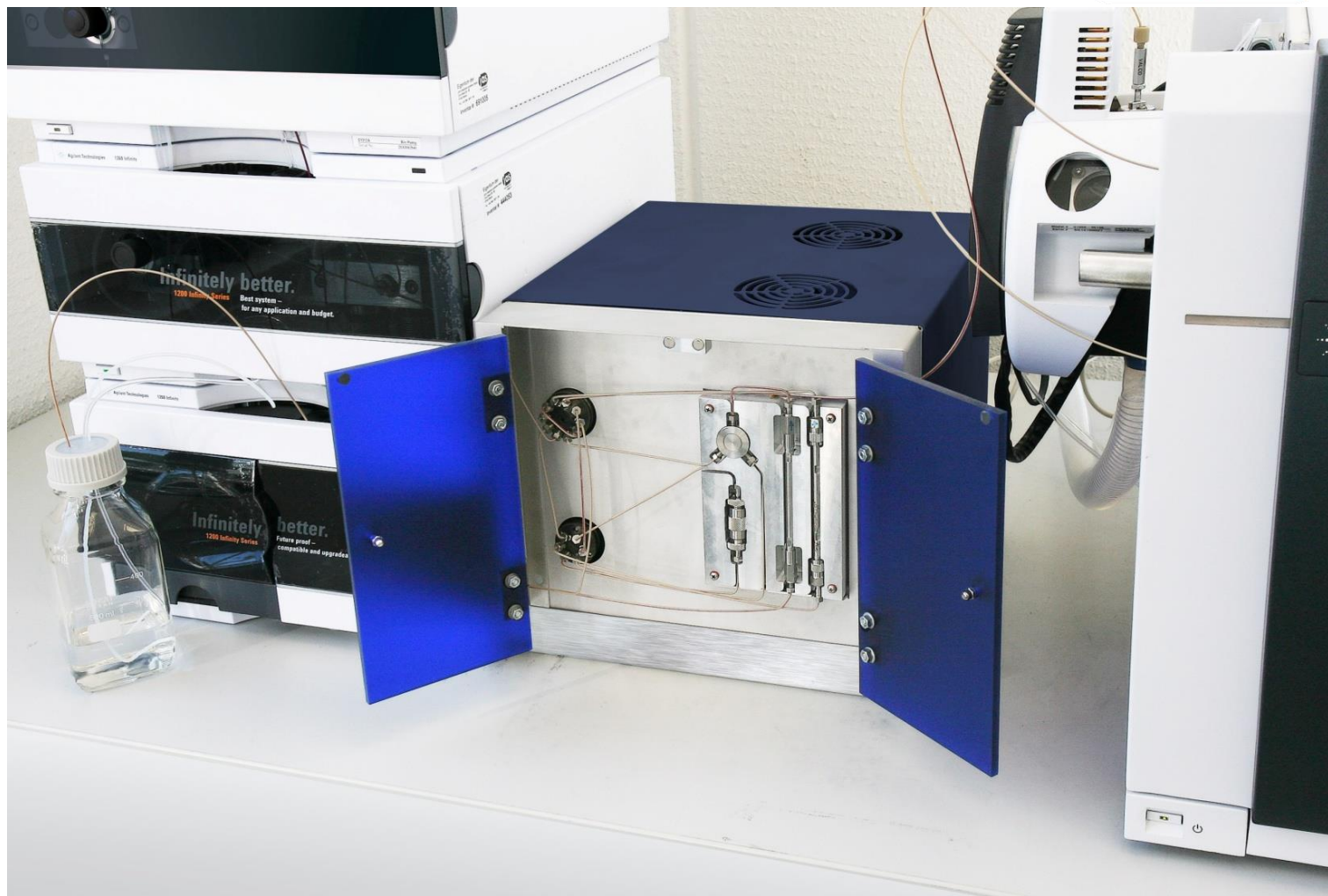


LC-MS/MS

EPICS – Validated for over 300 Pesticides



Thank you!



- Stefan Kittlaus, JAS Moers

- Dr. Günther Kempe, LUA Sachsen

9/10/2013 • Julia Schimanke, TU Dresden

- Prof. Dr. Karl Speer, TU Dresden

0020 63 C7 B9 E8 89 B7 C2 90 D2 0A
0030 37 DF B4 C8 78 A2 01 B9 46 F0 DE 2B 34 56 98 00
0040 B3 65 73 8D FB AE 93
0050 25 64 74 92 C7 B4 0A 04 DE EA 02 D7 B7 36 23 02
0060 C8 BA 73 CB D8 83 1F B3 BC 90 38 BF 78 AD 74 89



EPICS® – FULLY AUTOMATED ONLINE ANALYSER for 300+ Pesticides



Epics® - key features as part of the complete instrument set-up

1. Epics® is MS/MS brand independent and is operating with its own proprietary Software
2. Epics® S/W is fully Windows® compatible
3. Epics® S/W controls Temperature of the 2 column thermostats and time-intervals of the valves
4. Epics® needs a connection for its Start-Stop function with the 2 binary LC-pumps
5. Epics® needs a link with MS/MS with sufficient sensitivity, comparable with Agilent's TripleQuad 6460