



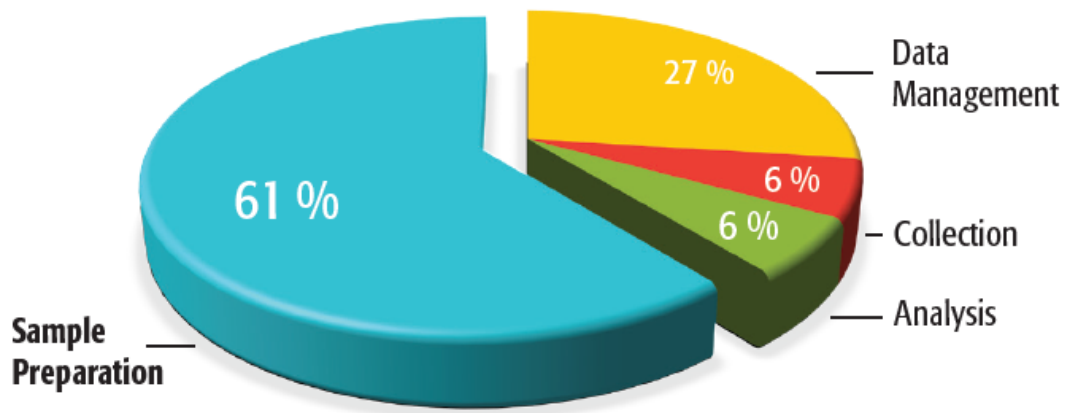
Are you looking for a reliable OEM Partner?

CTC Analytics

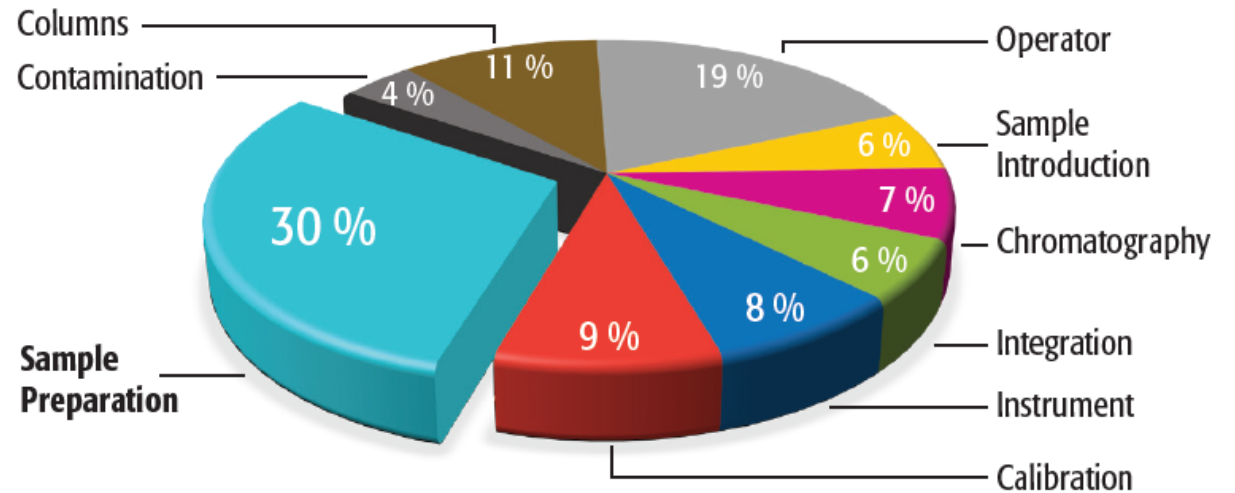
Fast, Safe, Reliable

Sample preparation is key to high productivity and low cost/sample

Time Spent on Typical Chromatographic Analysis



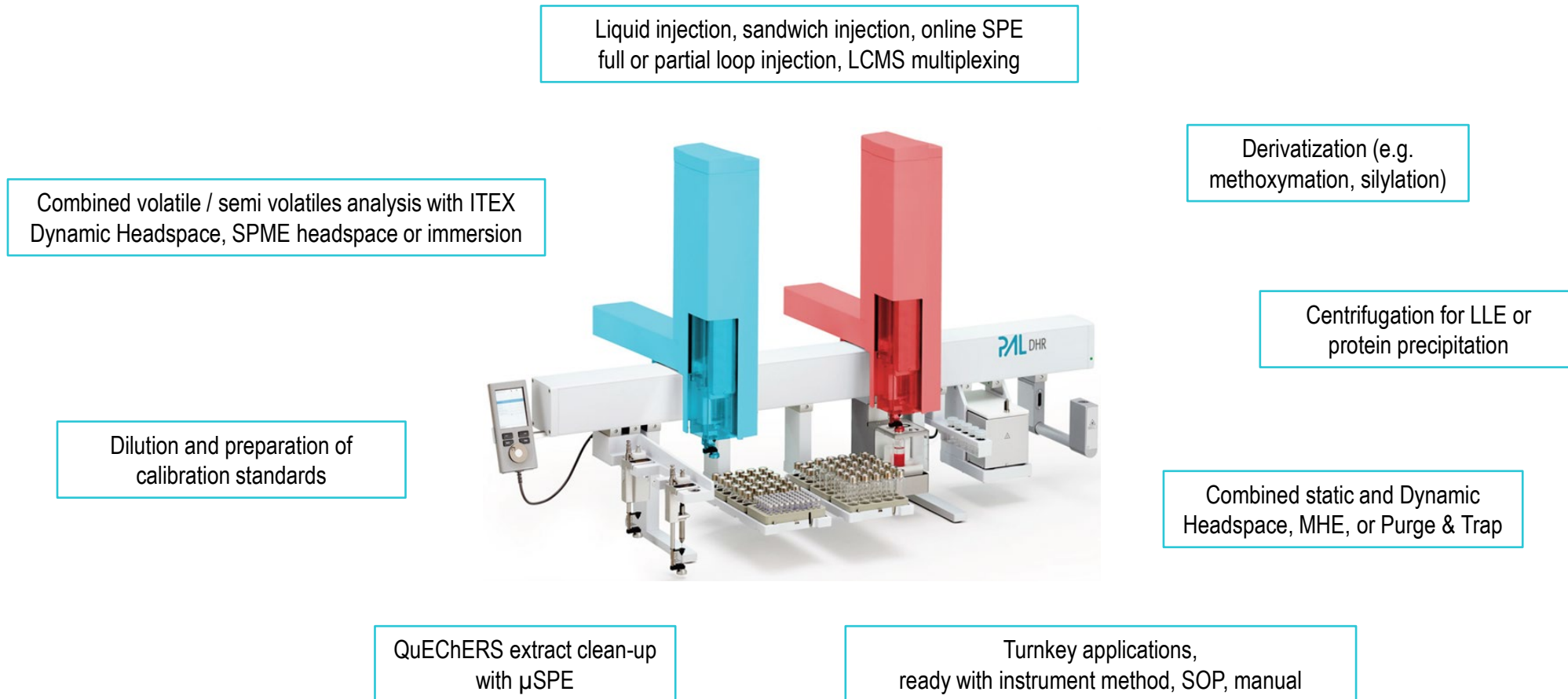
Sources of Error Generated During Chromatographic Analysis



* data taken from the book "SAMPLE PREPARATION FUNDAMENTALS FOR CHROMATOGRAPHY" from Agilent Technologies.

Remove the Sample Prep Bottlenecks

Sample Prep Capabilities



Versatile and affordable

- Workstations for popular workflows
- Shipped “ready out of the box”
- Methods included
- Offline or online sample prep to LC- and GC-systems
- Drag & Drop Software to create new or modify existing workflows
- Driver for many Chromatographic Data Systems available
 - Agilent OpenLab/Masshunter
 - Sciex Analyst
 - Shimadzu GCMSolution
 - Thermo Scientific Chromeleon
 - Waters Empower
- Only 60cm x 80 cm / 24in x 32in footprint



Meets sample prep requirements

- Robotic Tool Change, up to 3 tools always ready
- Liquid Tools 1 μ L-10mL
Positive displacement syringes & pipette tools 20, 200, 1000 μ L
- Gripper Tool for Pick and Place
- Solvent storage
- Sample storage, up to 10 MTPs
Ambient or temperature-controlled 4-40°C
- Heating/shaking for MTPs and vials 2, 10, 20mL
- Centrifuges with up to 5000xg
- μ SPE (Solid Phase Extraction)



Maximum flexibility in the early project phase

- Utilizing a PAL3 RTC System is an excellent way to develop workflows and do feasibility studies
Benefit from the Open Platform and the large selection of “off the shelf” Tools and Modules of the PAL System



Pick and choose to tailor to your application for performing a feasibility study



Design your application specific workstation

What we offer to OEM partners

Comprehensive services from concept to market launch

- ✓ Platform and toolbox for sample prep and liquid handling
- ✓ Robust and reliable technology, Swiss product quality
- ✓ Hardware & software developed, produced under ISO 9001 / ISO 13485 / IVD ready
- ✓ OEM specific development and customization
- ✓ OEM specific application and method development & support
- ✓ Support for software integration into data systems
- ✓ Training and technical support
- ✓ Development platform readily available (hardware & software)
- ✓ Support for market launch (content writing, sales training)
- ✓ Supply chain support



Life Science



Food Safety



Environmental



Clinical



Chemical

Who is CTC Analytics?

CTC Analytics

We provide top quality, support, fast delivery, reliably over the whole product life cycle

- Manufacturer of PAL Systems
- More than 50'000 PAL Systems sold worldwide
- OEM for all leading analytical instrument companies
- ISO 13485 certified
- PAL Systems are IVD ready
- HQ in Switzerland, offices in USA, China, Japan, Singapore



Certificate

The certification body of Swiss Safety Center AG hereby confirms that the company

CTC Analytics AG
Industriestrasse 20
CH-4222 Zwingen
Universitätsstrasse 69
CH-8033 Zürich

for the scope

Development, production and distribution of systems for automation at analytical laboratory equipment

successfully applies a quality management system including medical device requirements for regulatory purposes according to

ISO 13485:2016

| | |
|------------------------|------------|
| Registration number: | 04-298-061 |
| Initial certification: | 19.11.2009 |
| Recertification: | 27.03.2018 |
| Valid until: | 10.03.2021 |



Heinrich A. Bieler
Head of the certification body
Wallisellen, 28.03.2018
Swiss Safety Center AG, Certifications
Hochstrasse 18, CH-8500 Hünenen
A company of the SVT Group, member of VdTUV



CTC Analytics

Compliance to Clinical Use / IVD

PAL SYSTEM – «IVDready»

- «IVDready»: PAL system as a part of a dedicated instrument setup is compliant and ready for approval for clinical use / IVD
- Designed, developed, manufactured, tested, and supported under QM-System according to ISO 13485 also covering 21 CFR 820
- Technical documentation available upon audit request by authorities or notified bodies at CTC Analytics:
 - Risk analysis summary available
 - EMC testing summary available
 - Safety testing summary available
- CTC Analytics supports OEMs in their approval process for clinical diagnostic applications according to the directive 98/79/EC and regulation 2017/746 for Europe and 21 CFR 807 and 21 CFR 809 for the United States
- Applies to all PAL3 Systems

EU Ready for conformity assessment according to the directive 98/79/EC and regulation 2017/746
Quality Management System (EN ISO 13485)
Electromagnetic Compatibility (EN IEC 61326-1 incl. EN IEC 61326-2-6)
Safety (EN IEC 61010-1 incl. EN IEC 61010-2-101)

USA Ready to support the listing/approval of such systems by the OEM
Quality Management System (21 CFR 820)
Electromagnetic Compatibility (FCC)
Safety (UL/ANSI/CSA 61010-1 incl. 61010-2-101)

PAL is a registered trademark of CTC Analytics AG | Switzerland

www.palsystem.com



- PAL3 - designed, developed, manufactured, maintained under the following guidelines
 - Quality Management System ISO 13485:2003
 - Quality System Regulations US 21CFR820
- CE marked according to Machinery Directive 2006/42/EC including UL 61010 and EMC/FCC
- CTC Analytics supports OEM partners in their approval process for clinical diagnostic applications according to the directive 98/79/EC (Europe) and 21CFR807 / 21CFR809 (United States)
- Lead by OEM
- Technical documentation available at CTC upon request by authorities or notified bodies:
 - Risk analysis summary
 - EMC testing summary
 - Safety testing summary
 - Declaration of Conformity

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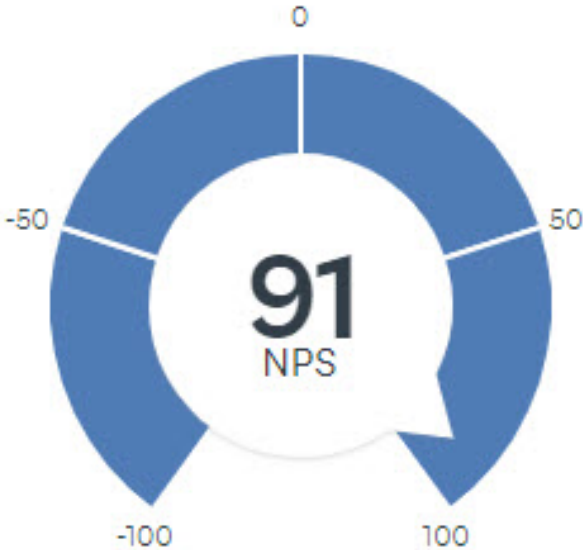
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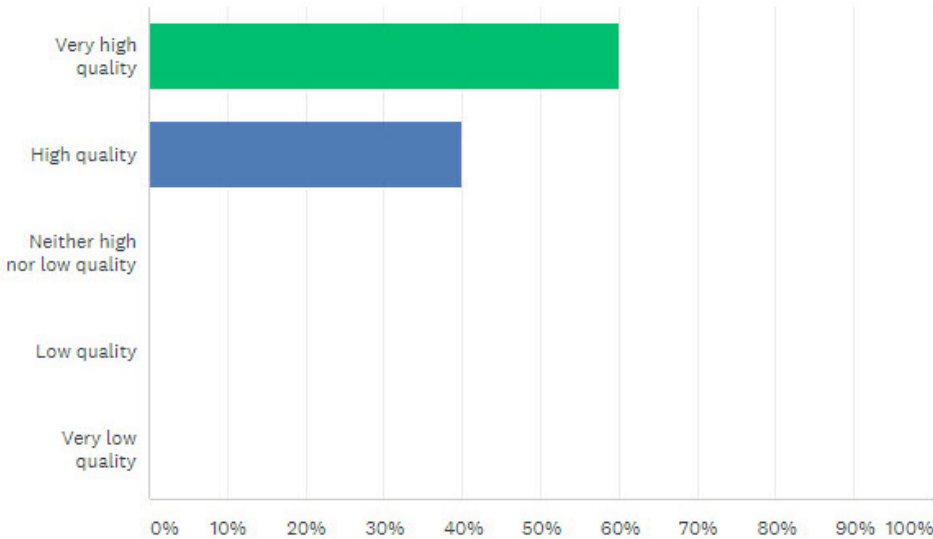
What our existing B2B customers say about us

How our existing OEM partners rate us

How likely is it that you would recommend CTC Analytics to a friend or a colleague?



How do you rate the quality of the product?



How do you rate our sales support?

