

How Green is Your HPLC?

Axceed Focus LC[®]



The Axceed Focus LC[®] is a compact and portable HPLC that's designed to be easily moved to various testing locations or placed close to other instruments for optimal coupling, such as with mass spectrometry (MS). Reducing the size of analytical instruments allows for simpler operation, lower cost of ownership, and greater productivity. Using the Green Chemistry Institute's Greenness Score, compact HPLC is about 180 times more green than larger HPLC systems.

The Axceed Focus LC[®]'s high-pressure pumping system can deliver microliter to nanoliter/min mobile phase flow rates. Fittings and transfer lines minimize dead volumes and preserve chromatographic performance along with multiple detector options.

- » Single wavelength on-column UV-absorption detection with LED light sources
- » UV absorption diode array detection (DAD)
- » Mass spectrometry (MS) detection

"Instrument miniaturization has allowed scientists to do more with less. Advanced equipment is "double the performance, half the size." Not only does this result in a smaller footprint, it's also faster due to automated work processes. Additionally, it is safer because it typically will use fewer amounts of reagents and accommodates closed systems that ensure a safer work environment."

(September, 2022)

Lab Manager
Run Your Lab Like a Business

"GREEN" LIQUID CHROMATOGRAPHY

- » As much as 1,000 times reduction in solvent usage
- » As much as 1,000 times reduction in toxic waste handling and disposal
- » Reduction in plastics used in manufacturing instrumentation
- » Reduction in electrical power usage
- » Reduction in laboratory bench space



MK-CMPD METHOD	AMGS
Assay (HPLC)	753.87
Assay (Compact LC)	4.22

The American Chemical Society Greenness Score (AMGS) evaluated waste reduction solvent CED and Instrument Energy Reduction. Typical kW of HPLC stack is .646 kW in-use, UHPLC is 0.496 in-use, by comparison the relative energy usage of the Axceed Focus in-use energy is 0.00548 kW or a factor of 0.008 (HPLC) and 0.011 (UHPLC). Total Factor=0.555 (waste) x 0.010 (avg HPLC, UHPLC) or 0.0056 times lower AMGS, about 180 times greener.



ACS Green Chemistry Institute
Pharmaceutical Roundtable

More information at www.axceedcorp.com