

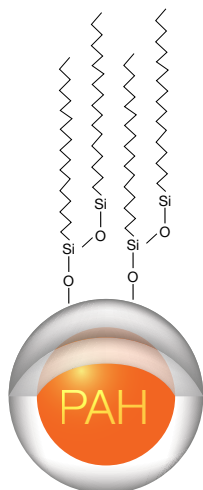
APPLICATIONS

Combined Analysis of Polycyclic Aromatic Hydrocarbons Found in Both EPA 8310 and EU 15+1 Using a Kinetex[®] 3.5 μm PAH Column

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Overview

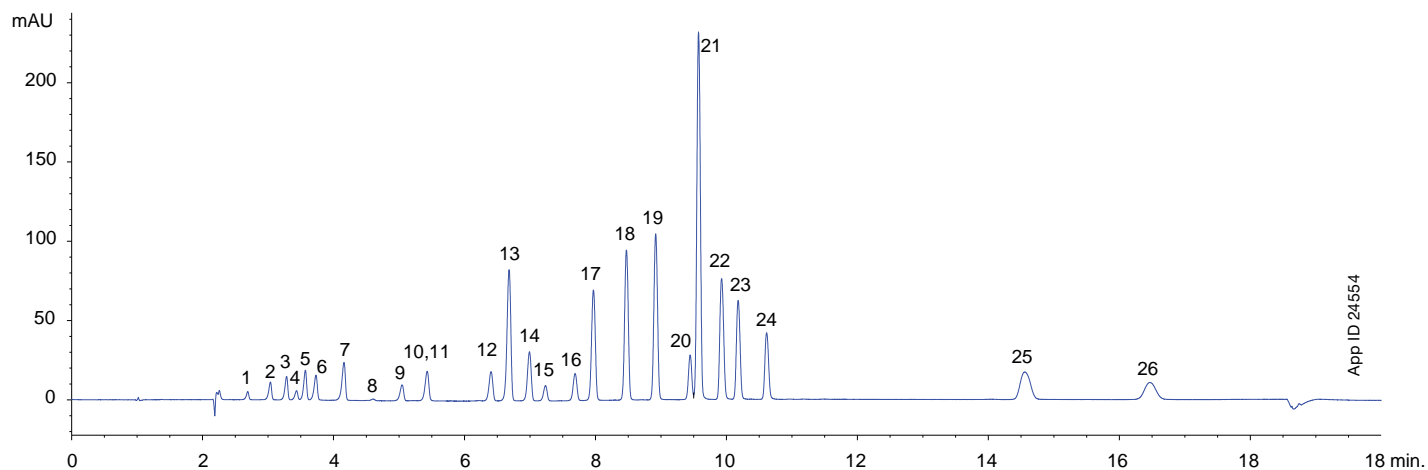
Many scientists are screening for a combination of analytes from the lists of priority contaminants studied within EPA 8310 and EU 15+1. Though there are 8 compounds these methods have in common, there are gaps in current screening processes for some analytes to cover the other 18 compounds respective to the individual methods. The method below provides a resolution for nearly all of the analytes within 17 minutes using a Kinetex PAH column. Phenomenex designed and developed the Kinetex PAH, a special polymerically bonded C18 stationary phase fused to a Kinetex core-shell silica particle. This particle and phase combination greatly improves selectivity for hard to resolve PAHs, while providing dramatically increased sensitivity (limit of detection) and better overall LC performance.



LC Conditions

Column:	Kinetex 3.5 μm PAH	
Dimensions:	150 x 4.6 mm	
Part No:	00F-4764-E0	
Mobile Phase:	A: Water B: Acetonitrile	
Gradient:	Time (min)	% B
	0	50
	9	100
	17	100
	17.5	50
	20	50
Flow Rate:	1.2 mL/min	
Backpressure:	168 Bar	
Temperature:	35 °C	
Detection:	UV @ 292 nm	
Sample:	1. Naphthalene	14. Chrysene
	2. Acenaphthylene	15. 5-Methylchrysene
	3. 1-Methylnaphthalene	16. Benzo[j]fluoranthene
	4. 2-Methylnaphthalene	17. Benzo[b]fluoranthene
	5. Acenaphthene	18. Benzo[k]fluoranthene
	6. Fluorene	19. Benzo[a]pyrene
	7. Phenanthrene	20. Dibenzo[a,l]pyrene
	8. Anthracene	21. Dibenzo[a,h]anthracene
	9. Fluoranthene	22. Benzo[ghi]perylene
	10. Pyrene	23. Indeno[1,2,3-cd]pyrene
	11. Benzo[c]fluorene	24. Dibenzo[a,e]pyrene
	12. Cyclopenta[cd]pyrene	25. Dibenzo[a,i]pyrene
	13. Benzo[a]anthracene	26. Dibenzo[a,h]pyrene

PAHs From EPA 8310 and EU 15+1



App ID 24554



APPLICATIONS

Kinetex[®] Ordering Information

3.5 µm Minibore Columns (mm)				SecurityGuard [™] ULTRA Cartridges (mm)
Phase	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
PAH	00B-4764-AN	00D-4764-AN	00F-4764-AN	AJO-9535
for 2.1 mm ID				

3.5 µm MidBore [™] (mm)		SecurityGuard ULTRA Cartridges (mm)
Phase	100 x 3.0	3/pk
PAH	00D-4764-YO	AJO-9534
for 3.0 mm ID		

3.5 µm Analytical Columns (mm)				SecurityGuard ULTRA Cartridges (mm)
Phase	100 x 4.6	150 x 4.6	250 x 4.6	3/pk
PAH	00D-4764-E0	00F-4764-E0	00G-4764-E0	AJO-9533
for 4.6 mm ID				

*SecurityGuard ULTRA Cartridges require holder, Part No.: AJO-9000

guarantee

If Phenomenex products in this technical note do not provide at least an equivalent separation as compared to a competing product of the same particle size, similar phase and dimensions, return the product with comparative data within 45 days for a FULL REFUND.

Terms and Conditions

Subject to Phenomenex Standard Terms and Conditions which may be viewed at www.phenomenex.com/TermsAndConditions.

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