Tokyo Method for separation of quinones, non-polar carotenoids, and short-tailed chlorophylls by HPLC

from Frigaard *et al*., 1997. *Archives of Microbiology* 167:343.

Solvent A

	%
Methanol	42
Acetonitrile	33
Water	25

Solvent B

	%
Methanol	50
Ethyl acetate	30
Acetonitrile	20

Gradient

Time (min)	**% B**	**Flow rate (ml min^{-1})**
0	30	1.00
52	100	1.00
58	100	1.00
60	30	1.00

Notes

***** because solvent A is not buffered, ammonium acetate should be added to the samples to a final concentration of 100 mM before injection.

***** for samples that may have quinones with longer tails than menaquinone-7, or carotenoids more hydrophobic than γ-carotene, the time at 100% B should be extended.

Separation of very polar carotenoids, non-polar carotenoids, quinones, and chlorophylls by HPLC

from J.A. Maresca, J.E. Graham, M. Wu, J. Eisen, and D.A. Bryant. (2007) Identification of a new family of lycopene cyclases in photosynthetic bacteria. Proceedings of the National Academy of Sciences, 104: 11784-11789..

Solvent A

	%
Water	62.5
Methanol	21
Acetonitrile	16.5
+ 10 mM ammonium acetate	

Solvent B

	%
Methanol	50
Ethyl acetate	30
Acetonitrile	20

Gradient

Time (min)	% B	Flow rate (ml min^{-1})
0	20	1.00
10	70	1.00
40	100	1.00
50	100	1.00
60	20	1.00

Note

* Solvent A is a 1:1 mixture of Tokyo A and HPLC-grade water, buffered with ammonium acetate. Because it is buffered, it is not necessary to add ammonium acetate to the samples.