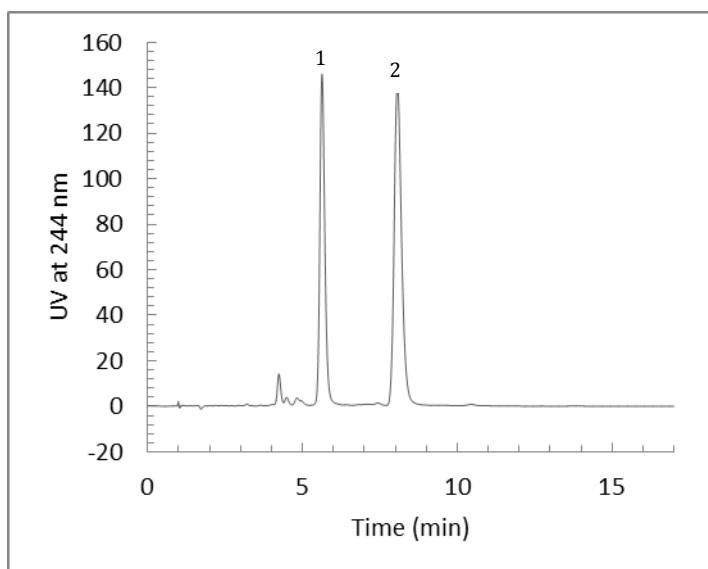


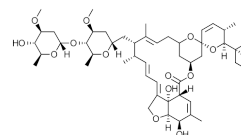
FLARE C18 MM Column: Isocratic separation of Avermectin B1a and Doramectin (Insecticides)

HPLC Conditions

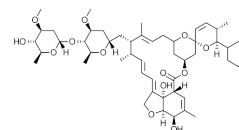
Column Name:	FLARE C18 MM
Column Dimensions:	4.6 x 150 mm (15698-21-2)
HPLC System:	Agilent 1200
Injection Volume:	5.0 µl
Detection:	UV at 244 nm
Flow Rate:	1.0 ml/min
Solvents:	A: 50 ml ACN, 950 ml H ₂ O, 1 ml Formic Acid B: 800 ml ACN, 200 ml H ₂ O, 1 ml Formic Acid
Elution Method:	Isocratic 50% A/ 50% B
Temperature:	45 °C



1. Avermectin B1a



2. Doramectin



Notes

Previous methods developed have been based on gradient elution. The method presented here is isocratic using ACN and water solvents. The mobile phase is acidified with 0.1% formic acid. As can be seen, baseline resolution is still obtainable with good peak shape for avermectins under these new conditions.

References

1. A. Awasthi, M. Razzak, R. Al-Kassas, J. Harvey, S. Garg, *Evaluation of degradation kinetics for abamectin in formulations using a stability indicating method*, *Acta Pharm.* 63 (2013) 59-69
2. Pitterna et. al, *New Ventures in the Chemistry of Avermectins*, *Bio. & Med. Chem.* 2009, 17, 4085–4095

