

# Effect of Column Length on Efficiency and Resolution

## Application

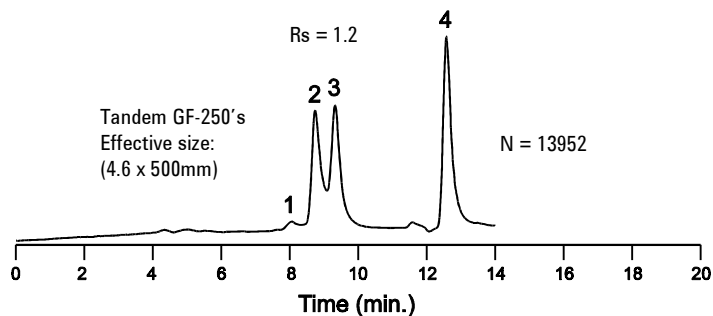
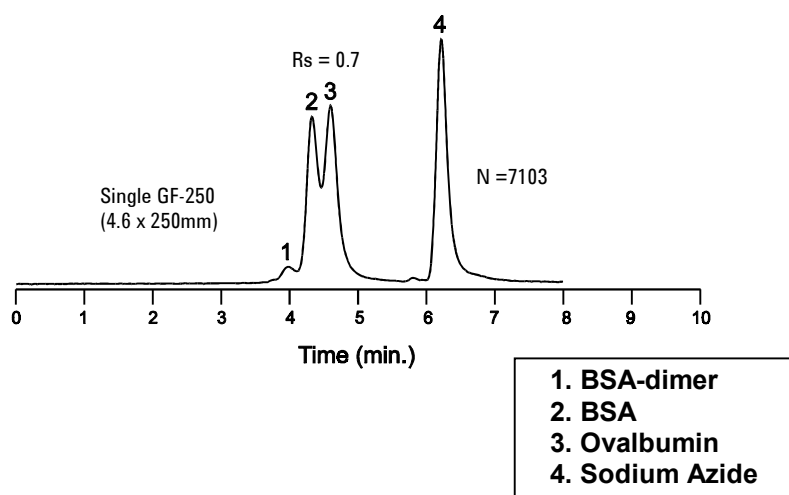
## Biochemical

Robert Ricker

Additional resolution can be obtained in size-exclusion chromatography (SEC) by increasing effective column length. The tradeoff is increased back-pressure and run time. Resolution of BSA and ovalbumin is shown for a single GF-250 (4.6 x 250 mm) and for two of these columns in tandem (effectively 4.6 x 500 mm).

## Highlights

- Increasing column-length results in improved resolution. When appropriate, two or more SEC columns may be connected in series to achieve a desired separation.



Conditions:  
ZORBAX GF-250 (4.6 x 250 mm) (Agilent P/N: 884973-701)  
Mobile Phase: 200mM Sodium Phosphate, pH 7.0  
Injection 2µL, 0.5 mL/min, Ambient, Detect. UV (225 nm)



Agilent Technologies

*Robert Ricker is an application chemist  
based at Agilent Technologies, Wilmington,  
Delaware.*

For more information on our products and  
services, visit our website at:  
[www.agilent.com/chem](http://www.agilent.com/chem)

Copyright© 2002 Agilent Technologies, Inc.  
All Rights Reserved. Reproduction,  
adaptation or translation without prior  
written permission is prohibited, except as  
allowed under the copyright laws.

Agilent shall not be liable for errors  
contained herein or for incidental or  
consequential damages in connection with  
the furnishing, performance, or use of this  
material.

Information, descriptions, and specifications  
in this publication are subject to change  
without notice.

Printed in the USA  
April 25, 2002  
5988-6314EN



**Agilent Technologies**