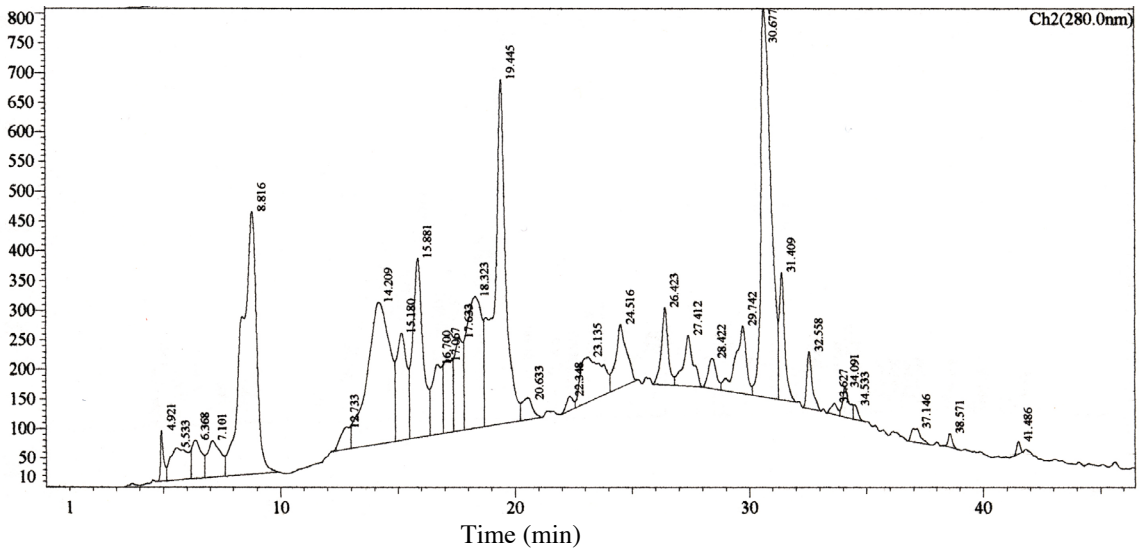

Figure 5. 8. HPLC trace of extracts from white oak (*Quercus alba*) heartwood

5. 4. Conclusion A method based on the Shimadzu LC/MS-8000 system was developed and optimized. The method allows quick and reliable identification of monomeric ellagitannins. Ellagitannins analyzed under the optimal conditions were found to follow a specific pattern of fragmentation, i.e. loss of ellagic acid. However, even with fragmentation, the base peaks for all monomeric ellagitannins studied were the molecular ions $(M\text{-}H)^-$, allowing the determination of molecular weights. Application of the methods in the analyses of oak heartwood extracts demonstrated it is very useful in the study of monomeric ellagitannin biosynthesis.

Acknowledgement

Professor Takashi Yoshida at the Faculty of Pharmaceutical Science, Okayama University, and Prof. Takashi Tanaka at the School of Pharmaceutical Sciences, Nagasaki University, Japan are gratefully acknowledged for supplying eight purified ellagitannins. The author would also like to thank Mrs. Harriet Williams at the Department of Food Science and Technology for the use of the Shimadzu LC/MS-8000 system.