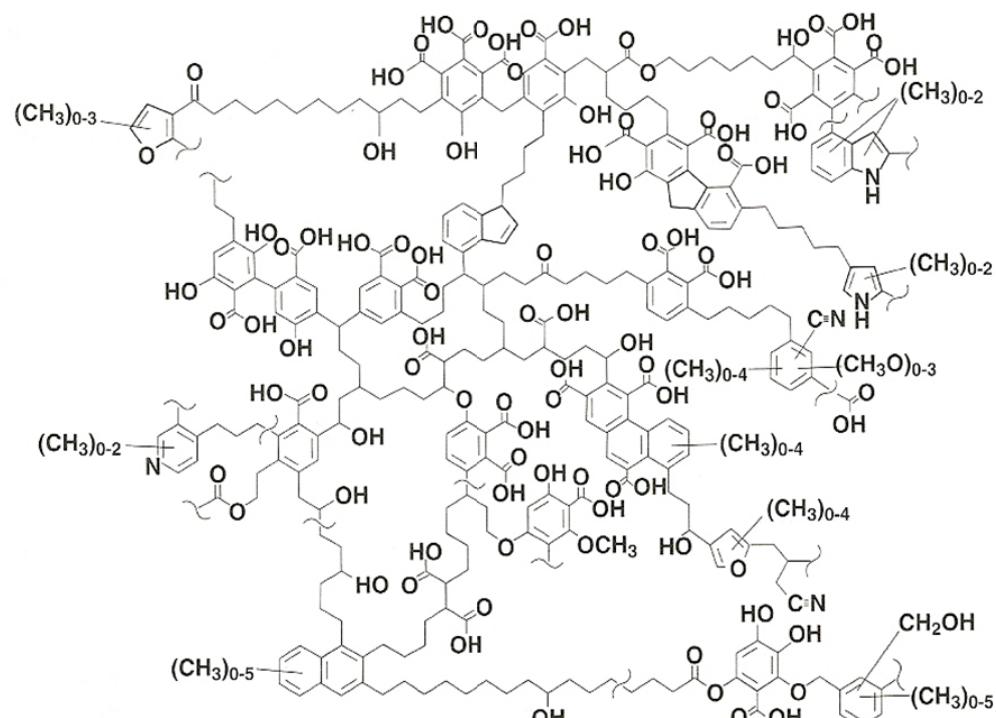


**FIGURE 3.4.** Fractionation of soil organic matter and humic substances. From Hayes, M. H. B. and Swift, R. S. In "The Chemistry of Soil Constituents" (D. J. Greenland and M. H. B. Hayes, eds.), pp. 179–230. Copyright 1978 John Wiley & Sons, Inc. Reprinted by permission of John Wiley & Sons, Inc.



**FIGURE 3.5.** Schematic of humic acid structure. From Schulten and Schnitzer (1993), with permission from Springer-Verlag.