

# Direct Analysis of Microorganism Samples by AXIMA-CFR

Sample provided by : Instrumentation Technology Research Group,  
Research Institute for Environmental Management Technology,  
National Institute of Advanced Industrial Science and Technology

MALDI-TOF-MS analysis of microorganism samples was possible without performing any complex pretreatment procedures. Fig. 1 shows spectra obtained using the AXIMA-CFR in which four different types of microorganism samples were simply mixed with CHCA ( $\alpha$ -cyano-4-hydroxycinnamic acid) matrix and then analyzed. Significantly different spectral patterns were obtained according to the type of microorganism, which may be attributable to characteristic protein constituents (or other chemical substances) associated with the respective samples.

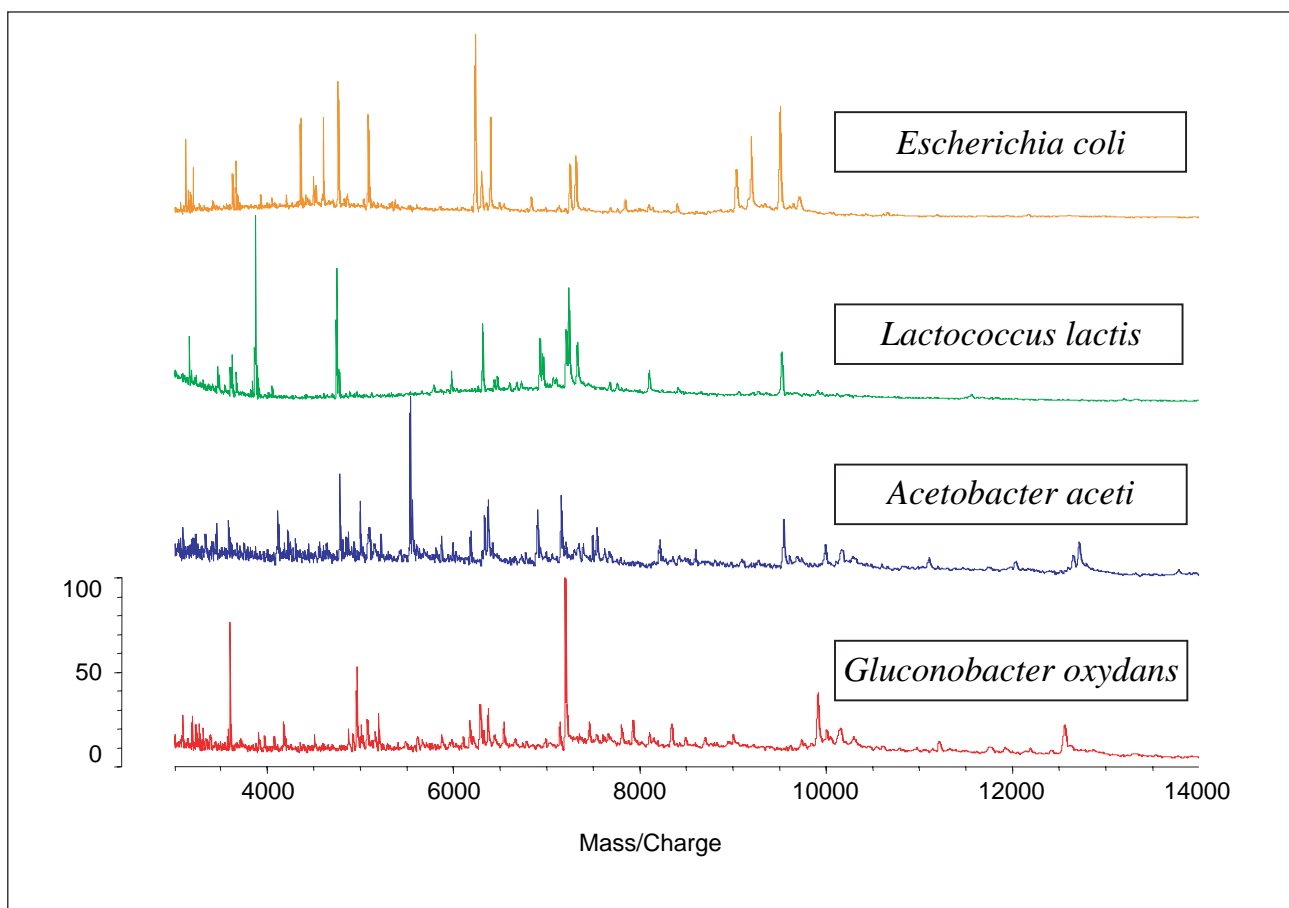


Fig. 1: MALDI-TOF-MS Spectra from Direct Measurement of Microorganism Samples

Literature cited: 1) Son, Sato, Torimura, Tao, Shintani, *Bunseki Kagaku*, **53**, 603-608 (2004)  
2) Lay J.O., Jr, *Mass Spectrometry Reviews*, **20**, 172-194 (2001)



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