

Effects of Matrix, Electrospray Solution, and Laser Light on the Desorption and Ionization Mechanisms in Electrospray-assisted Laser Desorption Ionization Mass Spectrometry

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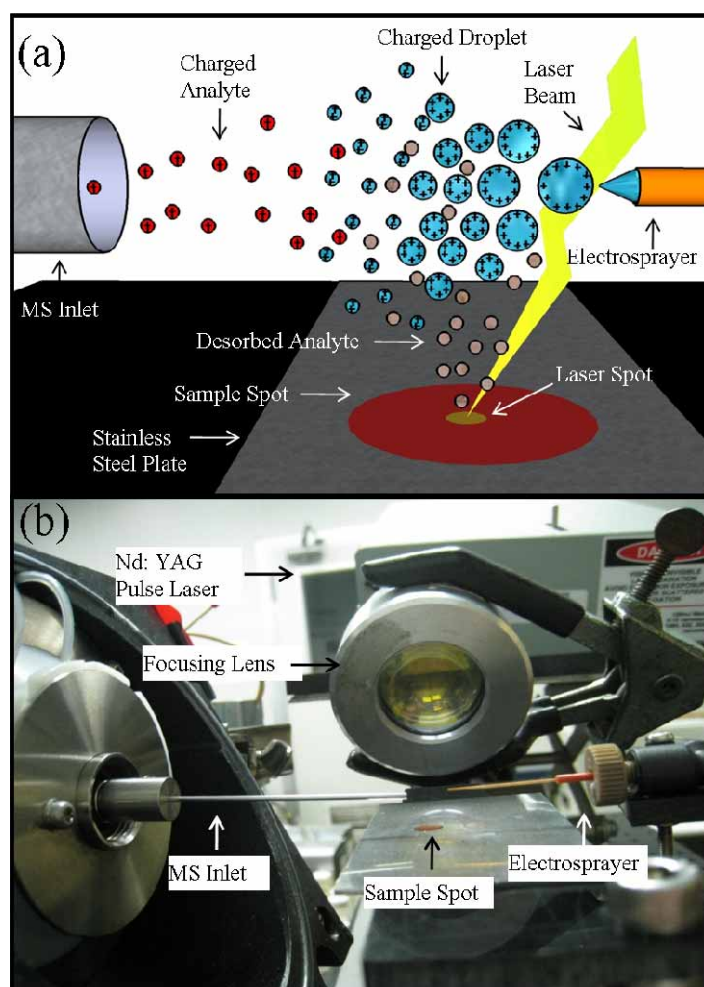


Fig. S1 (a) Schematic illustration of the ELDI MS technique for desorption and ionization of the analytes desorbed from the surface of a solid. Analyte molecules on the sample surface are desorbed upon irradiation with a pulse laser. The desorbed analyte molecules fuse into the charged solvent droplets generated from an electro-spray. Electro-spray ionization proceeds from the charged droplets containing the sample molecule. (b) Photograph of the ELDI ionization source coupled to an ion trap mass spectrometer with major parts indicated.

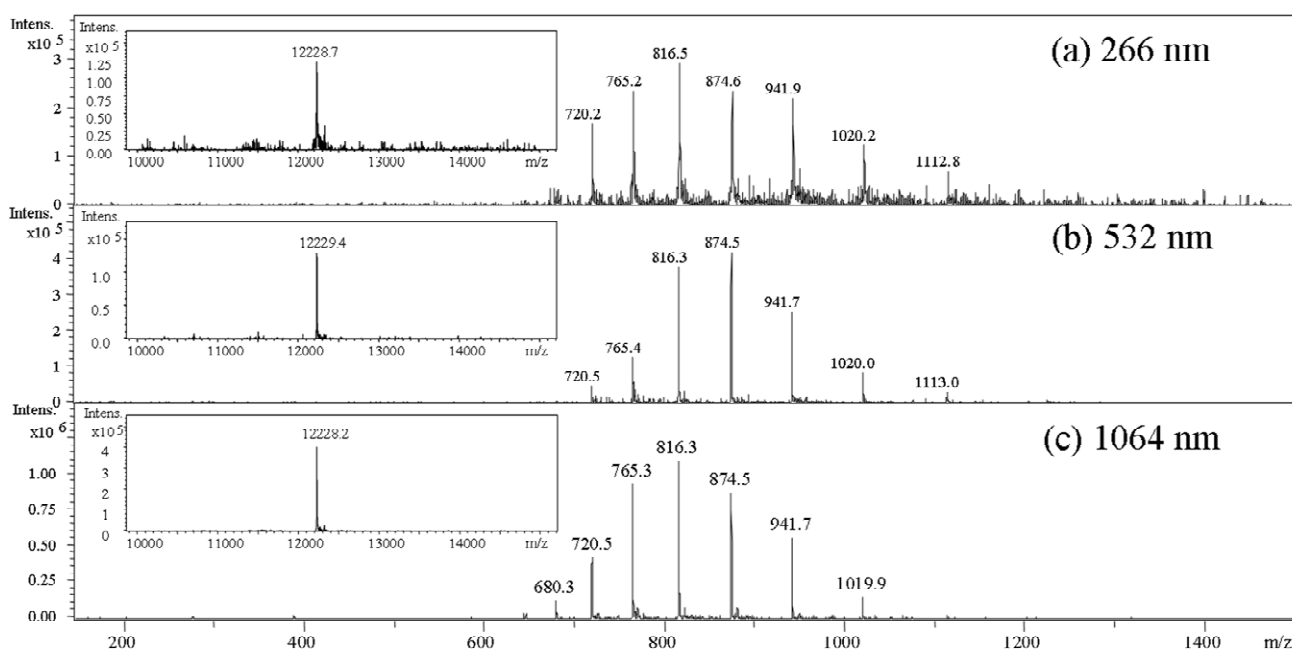


Fig. S2 Positive ion ELDI mass spectra of liquid cytochrome c without matrix application by using a pulse Nd:YAG laser with a wavelength of (a) 266nm, (b) 532 nm, and (c) 1064 nm. The insets show the deconvoluted mass spectra of cytochrome c ion.

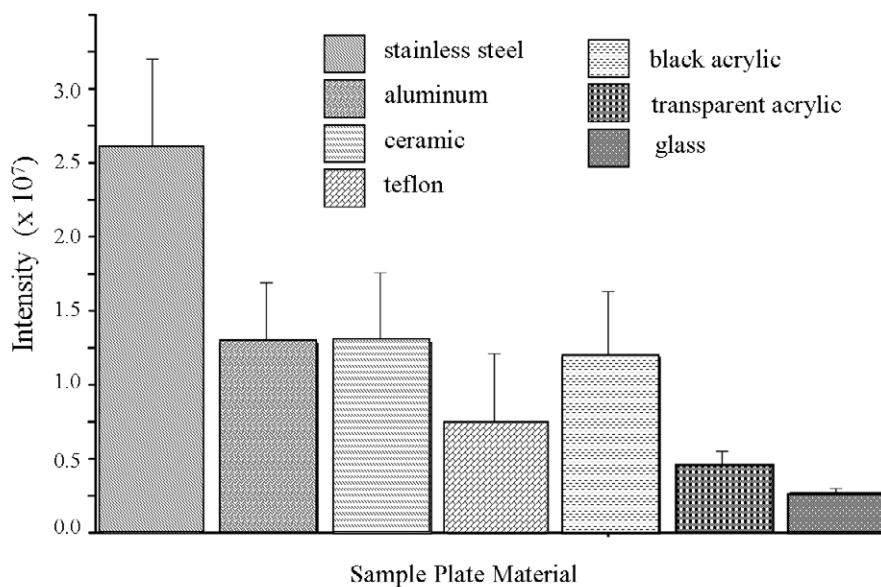


Fig. S3 Variation of Basic Blue 7 intensity recorded from the sample plate made by different materials.