

Electrospray Deposition Technique of Dye Molecules in the Vacuum

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Abstract : The electrospray deposition technique became an important method that enables fragile, nonvolatile molecules to be deposited in situ in high vacuum environments. Furthermore, it is considered one of the ways to close the gap between basic surface science and molecular engineering, which represents a gradual change in the range of scientist research. Also, this paper talked about one of the most important techniques that have been developed and aimed for helping to further develop and characterize the electrospray by providing data collected using an image charge detection instrument. Image charge detection mass spectrometry (CDMS) is used to measure speed and charge distributions of the molecular ions. As well as, some data has been included using SIMION simulation to simulate the energies and masses of the molecular ions through the system in order to refine the mass-selection process.

Keywords : charge, deposition, electrospray, image, ions, molecules, SIMION

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