

Fred van Geenen

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Project	Next generation ambient imaging mass spectrometry for (bio)polymers and smart materials
Fields of interest	Mass spectrometry imaging, analytical chemistry
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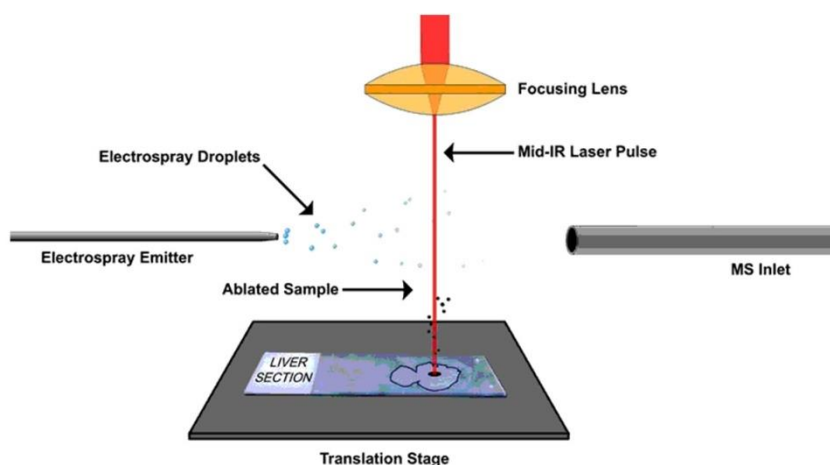


Introduction

Imagine that you would be able to get a detailed chemical picture of large and small intact molecules from the surface of (bio)polymer and smart materials, without any sample pre-treatment under ambient conditions. This would enable you to study the (in)homogeneity and spatial distribution of molecules and assist in innovation and development of material surfaces, and in trouble-shooting of visual defects of surfaces. Imaging of organic molecules under real 'ambient' conditions using a 'chemical' microscope is a key enabling technology for many research areas. Laser ablation electrospray ionization is a recently introduced technique for clinical tissue and plant material analysis. This technique enables analysis under ambient conditions and provides the starting point for the development of the next generation ambient imaging mass spectrometry for use on (bio)polymers and smart materials.

Goal

To improve selectivity and sensitivity in ambient laser ablation electrospray ionization mass spectrometry imaging of (bio)polymers and smart materials.



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