

Abstract Submitted  
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**Surface Analysis by Plasma Assisted Desorption Ionisation Mass Spectrometry (PADI-MS)** Y.A. GONZALVO, T.D. WHITMORE, P.J. HATTON, M.E. BUCKLEY, D. SEYMOUR, C.L. GREENWOOD, J.A. REES, Plasma & Surface Analysis Division, Hiden Analytical Ltd., UK, L.V. RATCLIFFE, D.A. BARRETT, School of Pharmacy, University of Nottingham, UK, F.J.M. RUTTEN, School of Pharmacy and iEPSAM, Keele University, UK, M.R.S. MCCOUSTRA, School of EPS - Chemistry, Heriot-Watt University, UK — Plasma assisted desorption/ionisation mass spectrometry (PADI-MS) is a surface analysis technique that yields sample information under ambient conditions of pressure and humidity without any surface preparation. It is achieved by directing a non-thermal atmospheric plasma onto the surface of interest. Desorption occurs from the surface and the subsequent ionisation products are detected in real time by using an atmospheric sampling quadrupole mass spectrometer. We have demonstrated the detection of active ingredients in a range of pharmaceutical and other samples, demonstrating the potential of the technique for high throughput screening in a pharmaceutical or forensics environment.

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