Recent patent applications in mass spectrometry

Patent number	Description	Assignee	Inventor	Priority application date	Publication date
WO 2008051093	A method for improving the signal intensity of precursor ions constrained in a carrier gas in a selected ion flow mass spectrometry (SIFT-MS) instrument, involving applying electrical potential to a flow tube to lower the diffusive loss of ions within the tube.	Syft Techologies (Christchurch, NZ)	Peck GC, Wilson PF	10/19/2006	5/2/2008
US 20080102536	A manufacturing method for an analytical sample by secondary ion mass spectrometry, involving separating a thin film and thin-film stack body from the substrate.	Semiconductor Energy Laboratory Co. (Atsugi-shi, Japan)	Toriumi S	10/31/2006	5/1/2008
JP 2008102020	A mass spectrometry sample stand for analyzing micro samples, comprising a crystalline substance with reverse perovskite structure provided between a base material and an analysis target object. Since the reverse perovskite structure has electrical conductivity as the metal is located in the surroundings, the thermal conductivity is also good and the analysis target object can be ionized efficiently. Hence high spatial resolution can be obtained, even if high energy is applied and temperature rises.	Toppan Printing Co. (Tokyo)	Furuta K	10/19/2006	5/1/2008
JP 2008096353	A mass spectrometer for analyzing a protein sample that selects the ionic species that are dissociated out of ions generated by the ionization of sample using valence of the ion, determined from mass spectrum data without interference peak.	Hitachi Technologies (Tokyo)	Kurosawa T, Morishima D, Nishida T, Takeda A	10/13/2006	4/24/2008
JP 2008095504	An inductively-coupled-plasma-source-mass-spectrometry apparatus that supplies additional gas to the intermediate position of a low-vacuum side stage and reduces partial pressure of hydrogen gas in the high-vacuum chamber. The rapid increase of partial pressure of hydrogen gas can be prevented and durability of the turbo molecular pump can be increased, allowing the analysis process to be performed continuously and stably.	Agilent Technologies (Santa Clara, CA, USA)	Kitamoto A	10/5/2006	4/24/2008
US 20080087817	A mass spectrometry system for analyzing metal species within a cell or tissue, with an integrated ionization source with an electrospray ionization source that generates a potential difference across a capillary tube and mass spectrometer interface.	Li G, Lopez-Avila V	Li G, Lopez-Avila V	10/13/2006	4/17/2008
US 20080087809	A tandem mass spectrometer with an electrode system positioned between mass analyzers to selectively deflect ions from an ion path for detection.	Crawford RK, Fischer SM, Russ CW	Crawford RK, Fischer SM, Russ CW	10/13/2006	4/17/2008
US 20080083873	An electrospray ionization system for liquid chromatography mass spectroscopy with a valve coupled to the inlet of a specific nozzle for selectively nebulizing one of a secondary and calibration liquid. Less expensive and allows for easier optimization of the secondary sprayer, and provides an effective way of introducing a secondary stream of liquid droplets into primary stream of electrosprayed droplets to reference correct time-of-flight mass spectra.	Giardina M	Giardina M	10/9/2006	4/10/2008
WO 2008035124	A silica particle useful as matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry (MALDI-TOF-MS) matrix material for the adsorption of polar organic compounds (e.g., dioxins, furans, steroids or sterols) and for partial desorption of adsorbed compounds.	Analytical Nano Technologies (Sedgefield, UK)	Rowell F, Sundar L	9/22/2006	3/27/2008
WO 2007145361	A method of detecting lipid-antigen of microorganisms for diagnosing diseases associated with Mycoplasma infections (e.g., asthma), involving analyzing the sample by mass spectrometry and detecting the spectrum peak specific to lipid antigen.	M Bio Technology (Tokyo)	Matsuda K, Shingu Y	6/14/2006	12/21/2007
WO 2007106816	A new substrate compound for mass spectrometric analysis of enzymes (e.g., alpha-galactosidase A); eliminates the need of detergents, user-unfriendly solvents (e.g., chloroform), and liquid-liquid and solid phase extraction steps. The process is also less time consuming than prior art processes.	PerkinElmer (Boston)	Cerda B	3/13/2006	9/20/2007

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