(All. 1)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 1

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato indichi le possibili cause di malfunzionamento di uno spettrometro di massa.

Il candidato descriva i liquidi criogenici: funzione e gestione nei magneti NMR.

Il candidato indichi che cosa si intende per "linguaggio in informatica".

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

A complete Standard System comprises an RC Interface unit (IU), a Radio Frequency (RF) Head, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling, see Figures 1.1 and 1.2.

In Series 1000 systems the RF generator is not fitted in the Head; it is located in a separate RF Generator Unit, hence a complete Series 1000 System comprises an RC Interface unit (IU), an Amplifier Head, a Series 1000 RF Generator Unit, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling,

Note
1. The Feedthrough Adapter is sometimes referred to as the Probe Connector Interface Unit.
2. The RC Interface unit is also referred to as the Mass Spectrometer Interface Unit (MSIU).

In both Standard and Series 1000 Systems the instrument is operated via an IBM-compatible Personal Computer (PC) running Hiden Analytical Limited's MASsoft application under Microsoft Windows. The PC may be supplied by Hiden Analytical Limited or provided by the user. The MASsoft application provides complete control and tuning of the instrument; also data acquisition, storage, recall and analysis within the Microsoft's Windows environment. Version 4 of the MASsoft application is described fully in Hiden Analytical Limited Manual number HA-085-067, "MASsoft Version 4 User Guide". Older versions of MASsoft are described in the Hiden Analytical Limited Manual number HA-085-004, "MASsoft User Manual". Whenever referred to the "MASsoft User Manual" in this manual use the MASsoft manual relevant to the version of software being employed.

RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

Instruments may be supplied for mounting directly in a vacuum chamber or as systems for sampling higher pressures. In a high pressure sampling system the Probe is mounted in a chamber and includes pumps, valves and the associated drive units mounted in a small rack or cubicle.

For optimum performance, the RF (or Amplifier) Head is mounted on the Probe and is connected to it via a 12-way feedthrough. In Standard Systems the RF Head contains signal-conditioning electronics, an RF power supply (for the quadrupole mass filter) and wiring to connect the IU-generated signals and voltages to the Probe. In Series 1000 Systems, the RF power is generated in the separate RF Generator Unit, not in the Amplifier Head.

In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.

(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 2

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato indichi le procedure di manutenzione di base di uno spettrometro di massa.

Il candidato descriva l'utilizzo dei prodotti chimici e di sicurezza in laboratorio: la preparazione del diazometano.

Il candidato descriva la differenza tra software e hardware.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

A complete Standard System comprises an RC Interface unit (IU), a Radio Frequency (RF) Head, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling, see Figures 1.1 and 1.2.

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Note
1. The Feedthrough Adapter is sometimes referred to as the Probe Connector Interface Unit.
2. The RC Interface unit is also referred to as the Mass Spectrometer Interface Unit (MSIU).

In both Standard and Series 1000 Systems the instrument is operated via an IBM-compatible Personal Computer (PC) running Hiden Analytical Limited's MASsoft application under Microsoft Windows. The PC may be supplied by Hiden Analytical Limited or provided by the user. The MASsoft application provides complete control and tuning of the instrument; also data acquisition, storage, recall and analysis within the Microsoft's Windows environment. Version 4 of the MASsoft application is described fully in Hiden Analytical Limited Manual number HA-085-067, "MASsoft Version 4 User Guide". Older versions of MASsoft are described in the Hiden Analytical Limited Manual number HA-085-004, "MASsoft User Manual". Whenever referred to the "MASsoft User Manual" in this manual use the MASsoft manual relevant to the version of software being employed.

RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

Instruments may be supplied for mounting directly in a vacuum chamber or as systems for sampling higher pressures. In a high pressure sampling system the Probe is mounted in a chamber and includes pumps, valves and the associated drive units mounted in a small rack or cubicle.

For optimum performance, the RF (or Amplifier) Head is mounted on the Probe and is connected to it via a 12-way feedthrough. In Standard Systems the RF Head contains signal-conditioning electronics, an RF power supply (for the quadrupole mass filter) and wiring to connect the IU-generated signals and voltages to the Probe. In Series 1000 Systems, the RF power is generated in the separate RF Generator Unit, not in the Amplifier Head.

In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.

(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 3

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descriva le tipologie e la manutenzione delle pompe da vuoto utilizzate negli spettrometri di massa.

Il candidato descriva possibili malfunzionamenti dei sistemi GC: cause ed interventi.

Il candidato descriva il formato PDF/A.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

A complete Standard System comprises an RC Interface unit (IU), a Radio Frequency (RF) Head, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling, see Figures 1.1 and 1.2.

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Note
1. The Feedthrough Adapter is sometimes referred to as the Probe Connector Interface Unit.
2. The RC Interface unit is also referred to as the Mass Spectrometer Interface Unit (MSIU).

In both Standard and Series 1000 Systems the instrument is operated via an IBM-compatible Personal Computer (PC) running Hiden Analytical Limited's MASsoft application under Microsoft Windows. The PC may be supplied by Hiden Analytical Limited or provided by the user. The MASsoft application provides complete control and tuning of the instrument; also data acquisition, storage, recall and analysis within the Microsoft's Windows environment. Version 4 of the MASsoft application is described fully in Hiden Analytical Limited Manual number HA-085-067, "MASsoft Version 4 User Guide". Older versions of MASsoft are described in the Hiden Analytical Limited Manual number HA-085-004, "MASsoft User Manual". Whenever referred to the "MASsoft User Manual" in this manual use the MASsoft manual relevant to the version of software being employed.

RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

Instruments may be supplied for mounting directly in a vacuum chamber or as systems for sampling higher pressures. In a high pressure sampling system the Probe is mounted in a chamber and includes pumps, valves and the associated drive units mounted in a small rack or cubicle.

For optimum performance, the RF (or Amplifier) Head is mounted on the Probe and is connected to it via a 12-way feedthrough. In Standard Systems the RF Head contains signal-conditioning electronics, an RF power supply (for the quadrupole mass filter) and wiring to connect the IU-generated signals and voltages to the Probe. In Series 1000 Systems, the RF power is generated in the separate RF Generator Unit, not in the Amplifier Head.

In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.

(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 4

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descrivi possibili malfunzionamenti di un HPLC: cause ed interventi.

Il candidato descriva le procedure per la misurazione di uno spettro monodimensionale con uno strumento NMR Bruker.

Il candidato descriva cosa si intende per sistema operativo.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

A complete Standard System comprises an RC Interface unit (IU), a Radio Frequency (RF) Head, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling, see Figures 1.1 and 1.2.

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Note
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2. The RC Interface unit is also referred to as the Mass Spectrometer Interface Unit (MSIU).

In both Standard and Series 1000 Systems the instrument is operated via an IBM-compatible Personal Computer (PC) running Hiden Analytical Limited's MASsoft application under Microsoft Windows. The PC may be supplied by Hiden Analytical Limited or provided by the user. The MASsoft application provides complete control and tuning of the instrument; also data acquisition, storage, recall and analysis within the Microsoft's Windows environment. Version 4 of the MASsoft application is described fully in Hiden Analytical Limited Manual number HA-085-067, "MASsoft Version 4 User Guide". Older versions of MASsoft are described in the Hiden Analytical Limited Manual number HA-085-004, "MASsoft User Manual". Whenever referred to the "MASsoft User Manual" in this manual use the MASsoft manual relevant to the version of software being employed.

RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

Instruments may be supplied for mounting directly in a vacuum chamber or as systems for sampling higher pressures. In a high pressure sampling system the Probe is mounted in a chamber and includes pumps, valves and the associated drive units mounted in a small rack or cubicle.

For optimum performance, the RF (or Amplifier) Head is mounted on the Probe and is connected to it via a 12-way feedthrough. In Standard Systems the RF Head contains signal-conditioning electronics, an RF power supply (for the quadrupole mass filter) and wiring to connect the IU-generated signals and voltages to the Probe. In Series 1000 Systems, the RF power is generated in the separate RF Generator Unit, not in the Amplifier Head.

In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.

(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 5

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descriva la tipologia e la manutenzione delle pompe da vuoto utilizzate nei laboratori chimici.

Il candidato descriva la procedura strumentale di acquisizione dei dati in spettrometria di massa.

Il candidato descriva i componenti dell'unità centrale di PC.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

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RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

Instruments may be supplied for mounting directly in a vacuum chamber or as systems for sampling higher pressures. In a high pressure sampling system the Probe is mounted in a chamber and includes pumps, valves and the associated drive units mounted in a small rack or cubicle.

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(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 6

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descriva le procedure per la pulizia o sostituzione di una sorgente utilizzata per la ionizzazione in uno spettrometro di massa.

Il candidato descriva l'utilizzo e la manutenzione di un evaporatore rotante.

Il candidato indichi che cosa si intende per periferiche di un PC.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

A complete Standard System comprises an RC Interface unit (IU), a Radio Frequency (RF) Head, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling, see Figures 1.1 and 1.2.

In Series 1000 systems the RF generator is not fitted in the Head; it is located in a separate RF Generator Unit, hence a complete Series 1000 System comprises an RC Interface unit (IU), an Amplifier Head, a Series 1000 RF Generator Unit, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling,

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In both Standard and Series 1000 Systems the instrument is operated via an IBM-compatible Personal Computer (PC) running Hiden Analytical Limited's MASsoft application under Microsoft Windows. The PC may be supplied by Hiden Analytical Limited or provided by the user. The MASsoft application provides complete control and tuning of the instrument; also data acquisition, storage, recall and analysis within the Microsoft's Windows environment. Version 4 of the MASsoft application is described fully in Hiden Analytical Limited Manual number HA-085-067, "MASsoft Version 4 User Guide". Older versions of MASsoft are described in the Hiden Analytical Limited Manual number HA-085-004, "MASsoft User Manual". Whenever referred to the "MASsoft User Manual" in this manual use the MASsoft manual relevant to the version of software being employed.

RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

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For optimum performance, the RF (or Amplifier) Head is mounted on the Probe and is connected to it via a 12-way feedthrough. In Standard Systems the RF Head contains signal-conditioning electronics, an RF power supply (for the quadrupole mass filter) and wiring to connect the IU-generated signals and voltages to the Probe. In Series 1000 Systems, the RF power is generated in the separate RF Generator Unit, not in the Amplifier Head.

In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.

(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 7

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alle tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descriva le procedure per la preparazione del campione e la successiva determinazione nella analisi elementare di CHNS(O).

Il candidato descriva l'uso e la manutenzione delle strumentazioni utilizzate per allontanare i solventi da una soluzione.

Il candidato descriva la differenza tra browser e motore di ricerca.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

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In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.

(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 8

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alla tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descriva la procedura strumentale di acquisizione dei dati in Risonanza Magnetica Nucleare.

Il candidato descriva l'analisi di miscele gassose mediante GC.

Il candidato indichi che cosa è un server.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

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(All....)

BANDO N. 367.269

CONCORSO PUBBLICO PER TITOLI ED ESAMI PER L'ASSUNZIONE CON CONTRATTO DI LAVORO A TEMPO PIENO E INDETERMINATO DI UNA UNITÀ DI PERSONALE PROFILO COLLABORATORE TECNICO ENTI DI RICERCA, VI LIVELLO PROFESSIONALE PRESSO L'ISTITUTO DI CHIMICA BIOMOLECOLARE (ICB) DEL CONSIGLIO NAZIONALE DELLE RICERCHE – POZZUOLI (NA)

Prova orale

data 09/03/2023

Serie Domande 9

Il candidato descriva il proprio CV con particolare riferimento alle esperienze relative alla tecniche chimiche e biologiche per il mantenimento e conduzione di apparecchiature scientifiche di utilizzo in chimica strumentale.

Il candidato descriva le possibili cause di contaminazione di un campione in spettrometria di massa e le sue soluzioni.

Il candidato descriva la preparazione di un campione per l'analisi GC.

Il candidato indichi uno o più programmi per la costruzione di una tabella di dati.

IL PRESIDENTE

IL SEGRETARIO

System Description

Two types of RC PIC Analyzer are available from Hiden Analytical Limited; the Standard System and the Series 1000 System.
Standard systems are available with either single or triple filter Probes and mass range options of 100, 200, 300 and 510 amu. The Series 1000 System offers an increased mass range (up to 2500 amu), or increased sensitivity at lower masses, compared with the Standard Systems.

A complete Standard System comprises an RC Interface unit (IU), a Radio Frequency (RF) Head, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling, see Figures 1.1 and 1.2.

In Series 1000 systems the RF generator is not fitted in the Head; it is located in a separate RF Generator Unit, hence a complete Series 1000 System comprises an RC Interface unit (IU), an Amplifier Head, a Series 1000 RF Generator Unit, an RC PIC Probe (which is installed within the vacuum system) and all the required interconnection cabling,

Note
1. The Feedthrough Adapter is sometimes referred to as the Probe Connector Interface Unit.
2. The RC Interface unit is also referred to as the Mass Spectrometer Interface Unit (MSIU).

In both Standard and Series 1000 Systems the instrument is operated via an IBM-compatible Personal Computer (PC) running Hiden Analytical Limited's MASsoft application under Microsoft Windows. The PC may be supplied by Hiden Analytical Limited or provided by the user. The MASsoft application provides complete control and tuning of the instrument; also data acquisition, storage, recall and analysis within the Microsoft's Windows environment. Version 4 of the MASsoft application is described fully in Hiden Analytical Limited Manual number HA-085-067, "MASsoft Version 4 User Guide". Older versions of MASsoft are described in the Hiden Analytical Limited Manual number HA-085-004, "MASsoft User Manual". Whenever referred to the "MASsoft User Manual" in this manual use the MASsoft manual relevant to the version of software being employed.

RC PIC systems include a parameter scan mode to map species intensity against appearance potential and beam tune parameters.

Instruments may be supplied for mounting directly in a vacuum chamber or as systems for sampling higher pressures. In a high pressure sampling system the Probe is mounted in a chamber and includes pumps, valves and the associated drive units mounted in a small rack or cubicle.

For optimum performance, the RF (or Amplifier) Head is mounted on the Probe and is connected to it via a 12-way feedthrough. In Standard Systems the RF Head contains signal-conditioning electronics, an RF power supply (for the quadrupole mass filter) and wiring to connect the IU-generated signals and voltages to the Probe. In Series 1000 Systems, the RF power is generated in the separate RF Generator Unit, not in the Amplifier Head.

In Standard Systems, the RC Interface is connected to the RF Head; in Series 1000 Systems the RC Interface is connected to the Series 1000 RF Generator Unit via the Amplifier Head.