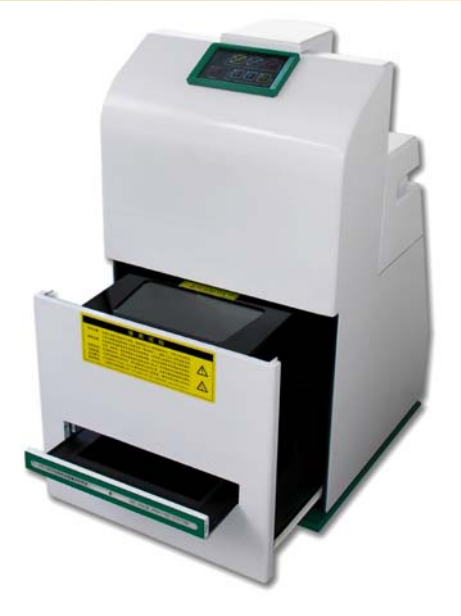
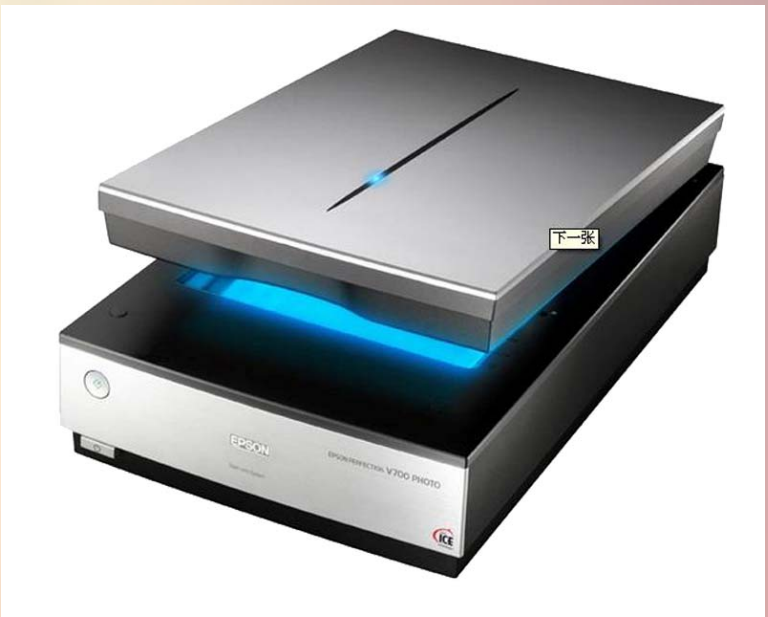
ESSE-EEF

Bio-Electrophoresis Image Analysis System

System available for all kinds of nucleic acid or protein electrophoresis images

Introduction





System can grab all kinds of nucleic acid or protein electrophoresis images by **UV/White** analysis unit or transparent gel scanner. The **Esse Smart View** software provide integrated flexible **1D** analysis functions (density scan, density quantification, molecular weight calculation). System can also print high resolution electrophoresis image and analysis report by professional printer.

Features

- High speed and high quality **UV/White** gel documentation.
- **DSP** Digital control camera system
- Use CCD enhancement patent technology under weak light environment.
- Grab protein electrophoresis gel image directly via transparent material scanner.
- Support scanner, digital camera and more **TWAIN** devices.
- With powerful image enhance and adjust ability.
- Provide integrated flexible **1D** analysis functions (density scan, density quantification, molecular weight calculation).
- Provide gel background adjustment, gel virtual division and other special functions.
- Print photographic-quality image by sublimation printer. (optional)
- Open and save image files in multi-format (**TIFF, BMP, JPG**).
- Support Excel sheets export, being in favor of data processing.

Functions

System Management'

- Open and save experiment image files in multi-format.
- Manager of experiment images.
- Image print program with professional adjustment.

Image Grab

- Grab images from **Auto UV/White** analysis system via video interface
- Grab images from scanner (optional) or digital camera via TWAIN interface.
- Copy or divide origin experiment image.

Image Enhancement

- Image invert.
- Convert color image into gray image.
- Image mirror and rotate.
- Image brightness/contrast adjust.
- Image smart adjust (only enhance electrophoresis bands and not change gel background).
- Image automatic adjust.
- Integrate several filter (smooth, sharpen, etc.).

Electrophoresis Analysis

- Density scan (draw density curve, calculate density integral and peak value).
- Density Compare (show density curves of several lanes in single screen).
- Molecular weight calculation (calculate unknown molecular weight and BP value of specified bands).
- Density quantification (calculate unknown density value of specified bands).
- Gel virtual division.
- Band virtual dye.
- Add texts, marks, rulers on image.

Specifications

- AutoUV/White Analysis system
- CCD Resolution: 145 (ten thousand pixel)
- Shutter Speed: 0.001-30s
- SNR (Signal-to-Noise): ≥56db
- Lens: 8-48mm (Auto)
- UV lamp wavelength: 312nm
- Length Filter: 590nm
- UV Transmission wavelength: 254nm, 312nm
- Signal Output: USD 2.0
- System Voltage: 220V/50Hz

Standard Equipment for NUCLEIC ACID

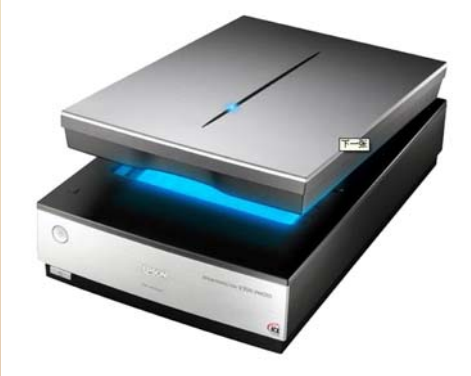
UV READER ESSE-F980

- Dark Chamber with **Auto UV/White Analysis System**

Software Esse Smart View

- Operation System: **Windows 98/2000/XP**
- Language: English

Standard Equipment for PROTEIN/HgB



DENSITOMETER SCANNER ESSE-F990

- Resolution: 1200X2400 dpi
- Color Mode: 48-bit Color
- Gray Scan Material: Reflex/Transparent

Software Esse Smart View

- Operation System: **Windows 98/2000/XP**
- Language: English

FULL VERSION for NUCLEIC ACID + PROTEIN/HgB

UV READER ESSE-F980

- Dark Chamber-**Auto UV/White Analysis System**

DENSITOMETER SCANNER ESSE-F990

- Resolution: 1200X2400 dpi
- Color Mode: 48-bit Color
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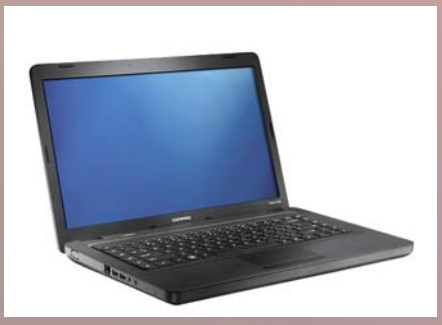
COMPLEMENTARY ACCESSORIES



Laptop (optional)

Windows XP English version

Print Unit (optional)

- Process Mode: sublimation
- Color Mode: 24bit Color/8-bit
- Gray Paper Size: A6

FICHE TECHNIQUE

Le système complet (**ESSE-F980** + **ESSE-F990**) peut analyser tous genres d'électrophorèses des acides nucléiques , protéines et hémoglobines sur bandes d'acétate ou sur gel

Le logiciel **Esse Smart View** intègre la fonction de lecture avec les fonctions d 'analyses 1D (scansion densité, quantification densité , calcule poids moléculaire). Le système pourra aussi imprimer une image à haute résolution des images avec un rapport d'impression complet de toutes les données.

Equipment Standard pour les ACIDES NUCLEIQUES

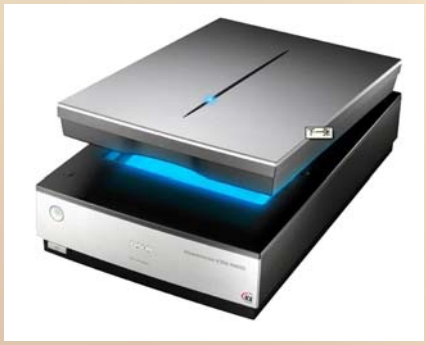
LECTEUR UV **ESSE-F980**

- Chambre noire avec système lecture **Auto UV/White**

Logiciel d'analyse **Esse Smart View**

- Système operatif : **Windows 98/2000/XP**
- Language: Anglais

Equipment standard pour PROTEINES/HgB



DENSITOMETERE SCANNER **ESSE-F990**

- Resolution: 1200X2400 dpi
- Mode couleur : 48-bit Color
- Matériel scansion gris : Reflex/Transparant

Logiciel d'analyse **Esse Smart View**

- Système operatif : **Windows 98/2000/XP**
- Language: Anglais

Version complète pour ACIDES NUCLEIQUES + PROTEINES/HgB

LECTEUR UV **ESSE-F980**

- Chambre noire avec système lecture **Auto UV/White**

DENSITOMETER SCANNER **ESSE-F990**

- Resolution: 1200X2400 dpi
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Software **Esse Smart View**

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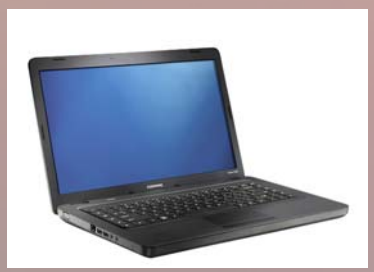
ACCESSOIRES COMPLEMENTAIRES



Laptop (optional)

Windows XP version anglaise

Unité impression (optional)

- Mode Process: sublimation
- Mode couleur 24bit Color/8-bit
- Formata papier gris : A6

Specifications

ES-F980 LECTEUR UV

- Scansion UV/blanc à haute vitesse , haute définition et haute qualité
- Système de contrôle numérique de la camera **DSP**
- Emploi de la fonction brevetée « **CCD enchantement »** en présence de faible lumière ambiant.
- Système d'analyse **Auto UV/White** / Resolution CCD: 145 (10.000 pixel)
- Vitesse Shutter 0.001-30s / SNR (rapport Signal-bruit): ≥56db
- Lentilles: 8-48mm (Auto) / Longueur d'onde de la lampe UV : 312nm
- Longueur d'onde du filtre: 590nm
- Longueur d'onde transmission UV : 254nm, 312nm
- Signal de sortie: USD 2.0
- Alimentation: 220V/50Hz

ES-F990 SCANNER DENSITOMETRE

- Lecture des images des protéines directement sur le scanner .
- Support scanner, camera numérique et tous les dispositifs **TWAIN**
- Puissant traitement des images pour améliorer les fonctions d'analyse
- Range dynamique 0-3.4 OD /Modes de scansion : transmittance et riflettance
- Mode de pilotage : **TWAIN** / Range de scansion : de 210 à 297 mm
- Densité optique 3,4P / Résolution ¨1000dpi
- Résolution optique max : 8000 dpi / 8 bit - 12 bit data output
- Alimentation: 220V/50Hz

Esse Smart View Logiciel

- Fonction analyse **1D** (scansion densité, quantification densité , calcule poids moléculaire).
- Réglage fond gel , division virtuelle gel et autres fonctions spéciaux
- Impression qualité photographique sur imprimante à sublimation (optionnelle)
- Mémorisation et traitement des fichiers image multi-format (**TIFF, BMP, JPG**).
- Support exportation fichiers Excel pour le traitement des données

Système de Gestion

- Possibilité d'ouvrir et sauver les images en fichiers multi-format.
- Gestion , copie et traitement des images "experiment"
- Impression avec le programme **Image Grab** qui permet réglages professionnels.
- Images Grab de la scansion **Auto UV/White** via interface vidéo de l'analyseur **ES-980**
- images Grab de la scansion via interface **TWAIN**. du scanner **ES-F990**

Amelioration des images

- Fonction Inversion et Miroir des Images .
- Possibilité de convertir une image couleur dans une image en gris
- Réglage automatique des image avec réglage contraste et luminosité
- Réglage intelligent de l'image (amélioration de la bande électrophorèses sans toucher le fond gel)
- Filtres intègres pour toutes les fonctions (smooth, sharpen, etc.).

Analyse Electrophorese

- Densité de scansion (dessin de la densité de la courbe , calcule de la densité intégrale et valeur de pic).
- Comparaison densité (montre les courbes de densité de différent lignes sur le même écran).
- Calcule du poids moléculaire (avec valeur BP value de bandes spécifiques).
- Quantification densité , division virtuel GEL, bande virtuel colorant
- Ajout de textes, marks, commentaires sur l'image.

ESSE– 6C
Electrophoresis Power Supply

Features:

* We adopt the microcomputer processor as the control center of Propus-6C, ON/OFF switch.
* Propus-6C has the following strong points:small, light, high output-power, stable functions;
* The LCD screen show: voltage, electric current, pre-assigned time, etc.;
* It has warning function of timing;
* It has function of storing the operation parameters of last time;
* It can work in the constant state of voltage, or in the constant state of electric current, it can be converted automatically according to the pre-assigned parameters for different needs;
* It has the protection function when it is under the circumstances of the unloaded, overload, suddenload change and when it is beyond the limitation
* Parameters can be adjusted finely during the running
* Output terminals: 4 pairs in parallel

Specifications:

* Power requirement: A.C. 220V±10% (50Hz ±2%);
* Input power: 300 VA;
* Output voltage: (6-600)V (Increase or decrease:1V/step);
* Output current: (4-400) mA (Increase or decrease:1mA/step);
* Output power: 240 W
* Stability: Constant voltage ≤1%; constant current ≤2%;
* Adjustment rate: Constant voltage ≤2%; constant current ≤3%;
* Size(W x D x H): 315 x 290 x 128 (mm);
* Weight: 5.0 kgs.

Application:

DNA, RNA, Protein, Agarose,
Isoelectric focusing,
2-dimensional electrophoresis

ESSE－7C
Electrophoresis Power Supply

Features:

* We adopt the microcomputer processor as the control center of Propus-7C; ON/OFF switch.
* Propus-7C has strong points such as : small, light, high output-power, stable functions
* The LCD screen show voltage, electric current, pre-assigned time, etc.;
* It has warning function of timing;
* It has function of storing the operation parameters of last time;
* It can work in the constant state of voltage, or in the constant state of electric current, it can be converted automatically according to the pre-assigned parameters for different needs;
* It has protection function when it is under the circumstances of the unloaded, overload, suddenload change and when it is beyond the limitation;
* Parameters can be adjusted finely during the running;
* Output terminals: 4 pairs in parallel;

Specifications:

* Power requirement:A.C. 220V±10% (50Hz ±2%);
* Input power: 500 VA;
* Output voltage: (2-300)V (Increase or decrease:1V/step);
* Output current: (5-2000) mA (Increase or decrease:2mA/step);
* Rated output power: 300 W
* Stability: constant voltage ≤1%; constant current ≤2%;
* Adjustment rate:constant voltage ≤2%; constant current ≤3%;
* Size(W x D x H): 315 x 290 x 128 (mm);
* Weight: 5.0 kgs.

Application:

ESSE-7C is suitable for trans-blotting electrophoresis

ESSE – 8C
Electrophoresis Power Supply

Features:

* We adopt the microcomputer processor as the control center of Propus-8C; ON/OFF switch.
* Propus-8C has strong points such as small, light, high output-power, stable functions;
* The LCD screen show voltage, electric current, pre-assigned time, etc.;
* It has warning function of timing;
* It has function of storing the operation parameters of last time;
* It can work in the constant state of voltage, or in the constant state of electric current, it can be converted automatically according to the pre-assigned parameters for different needs;
* It has protection function when it is under the circumstances of the unloaded, overload, suddenload change and when it is beyond the limitation;
* Parameters can be adjusted finely during the running;
* Output terminals: 2 pairs in parallel;

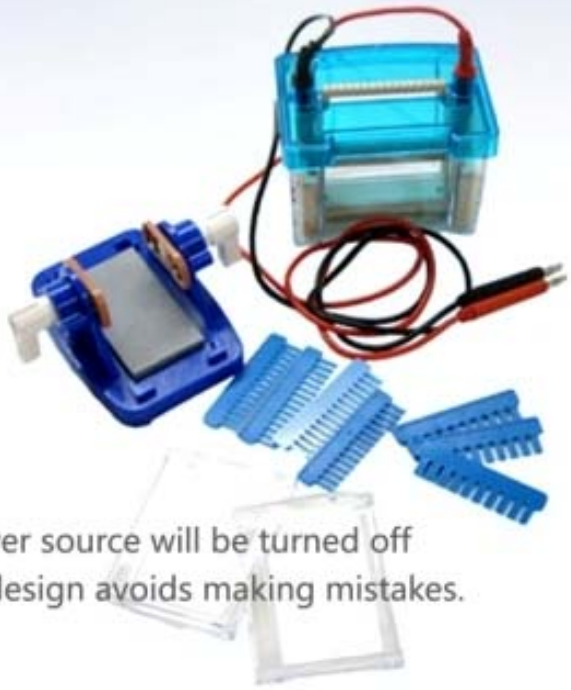
Specifications:

* Power requirement: A.C. 220V±10% (50Hz ±2%);
* Input power: 200 VA;
* Output voltage: (5-600)V (Increase or decrease:1V/step);
* Output current: (2-200) mA (Increase or decrease:1mA/step);
* Output power: 120 W;
* Stability: Constant voltage ≤1%; Constant current ≤2%;
* Adjustment rate: Constant voltage ≤2%; Constant current ≤3%;
* Size(W x D x H): 315 x 290 x 128 (mm);
* Weight: 5.0 kgs.

Application:

ESSE-8C is suitable DNA, RNA, Protein, Agarose, 2-dimensional electrophoresis

ESSE– 24DN
Electrophoresis Cell



is a delicate, simple and easy to use system. It is manufactured fro m high acrylic with platinum electrodes. Its seamless, injection-molded transparent base prevents leakage and breakage.
This system is very safe for users. Its power source will be turned off when user opens the lid. The special lid design avoids making mistakes.

Features:

* Different combs and spacers is available;
* Transparent tank visible without obstructions;
* Casting and running gel at the same place;
* Gel casting device make gel casting simply and save your precious time;
* Special wedge frame design fix gel room firmly;
* Molded buffer tank equipped the electrodes with pure platinum;
* Easy and convenient to add the sample;
* Run one gel or run two gels at the same time;
* Save buffer solution and basic solution, only needs 170 ml;
* Special configuration design of the tank and lid avoid mistakes during the operation;
* Power fails when open the lid for users safe;
* High resolution separation with simple operation.

Specifications:

* Gel dimension (L X W): 83 × 75 (mm);
* Runs up to 10 or 15 samples;
* Comb thickness: 1.0 and 1.5 (mm) (standard configuration), 0.75 (mm) (optional configuration) ;
* Full buffer volume: about 400ml and basic running buffer volume: about 170 ml;
* Size (L X W X H):150×100×140 (mm);
* Weight: about 1.0 KGS.

Applications:

* For SDS – PAGE, Protein Electrophoresis.

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