

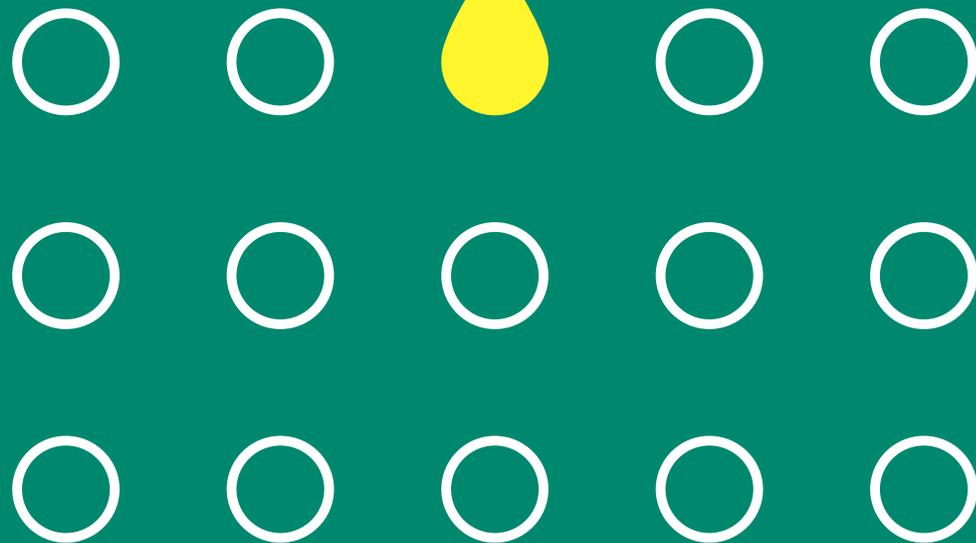
多光谱激光成像 Amersham Typhoon培训

10 June 2020

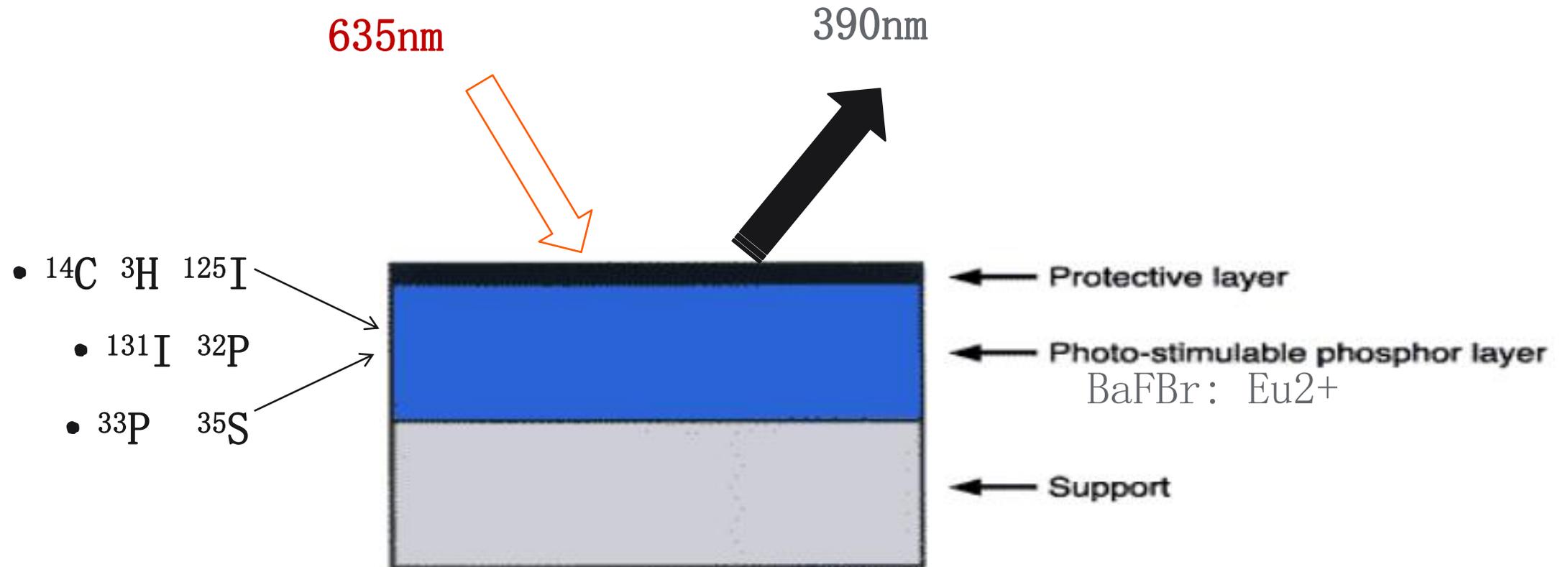
于海宽

Cytiva (原GE医疗生命科学事业部)

成像产品技术支持

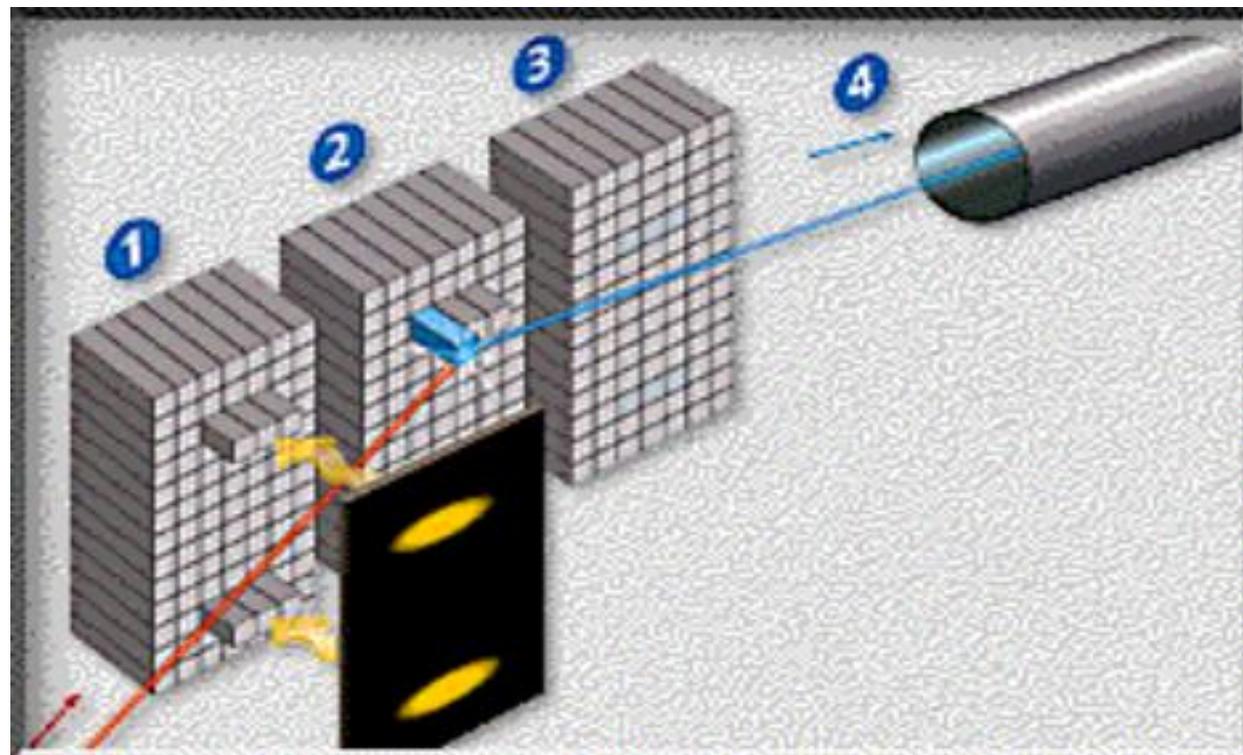


放射自显影—磷屏



磷屏使用流程

- BaFBr: Eu^{2+} ground state
- BaFBr: Eu^{3+} stable trap
- $\text{BaFBr: Eu}^{2+ *}$ unstable state
- BaFBr: Eu^{2+} returns to ground state



Amersham Typhoon

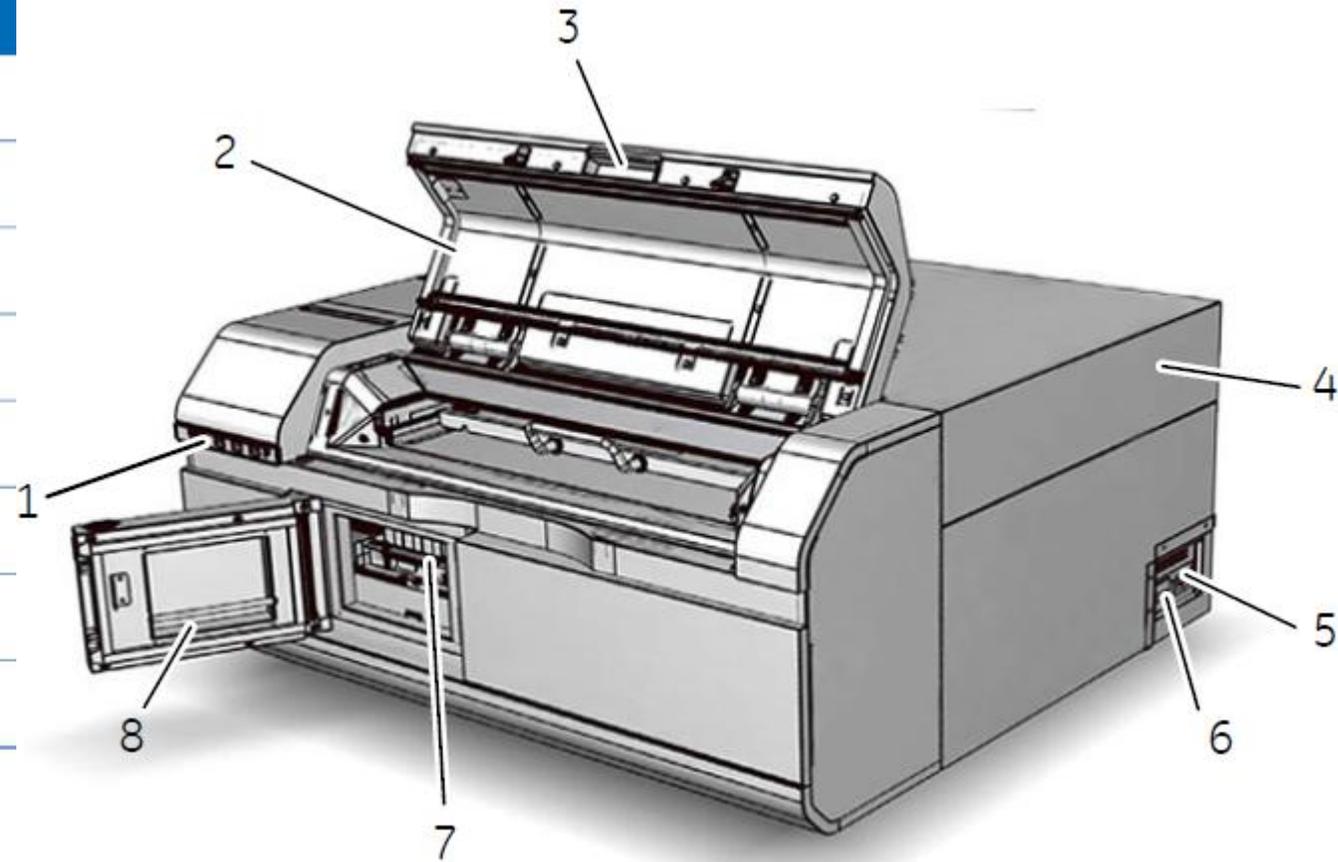
Part	Function
1	Amersham Typhoon scanner
2	Amersham Eraser
3	Amersham Cabinet

2和3为选配件



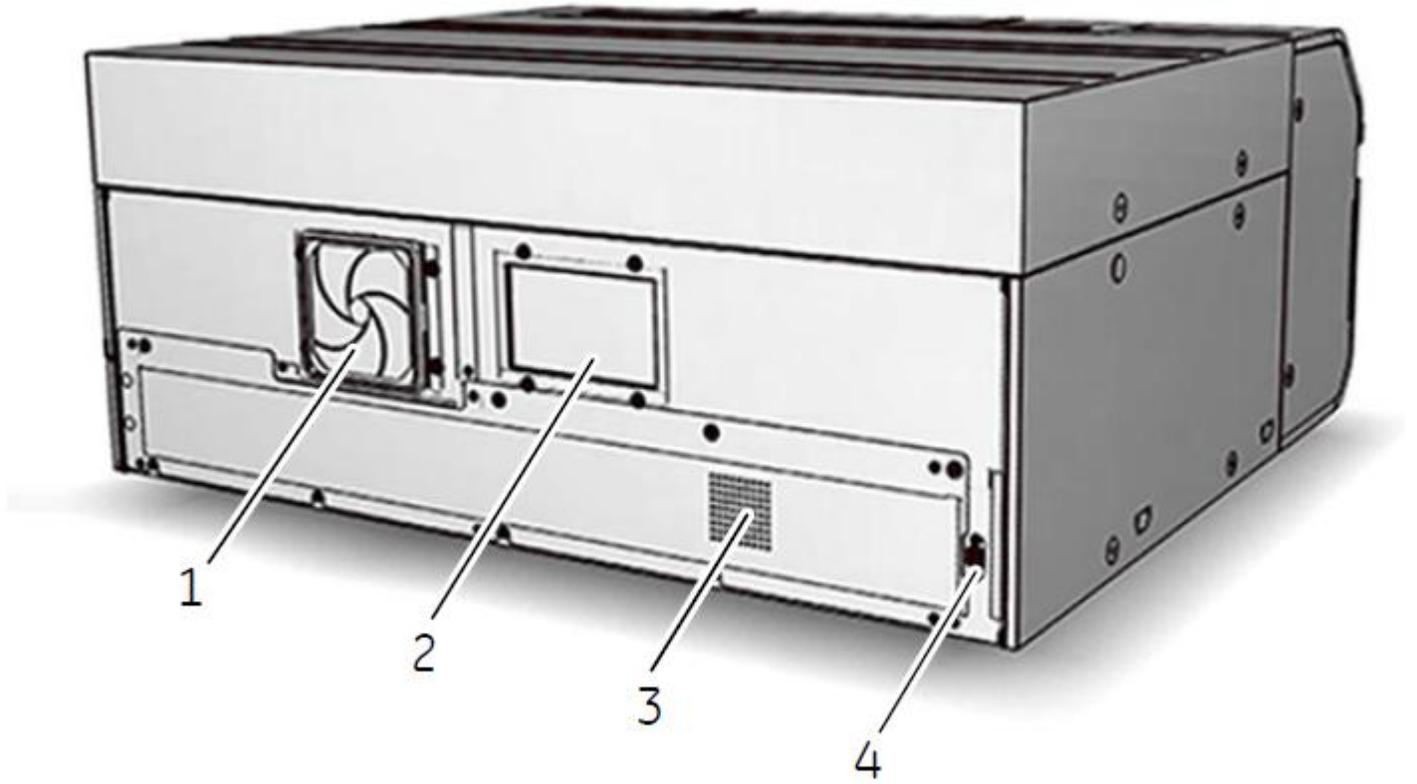
Amersham Typhoon

Part	Function
1	Instrument panel
2	Main scanner door
3	Scanner door handle
4	Instrument cover
5	Power cord connector
6	Power switch
7	Filter module
8	Filter door

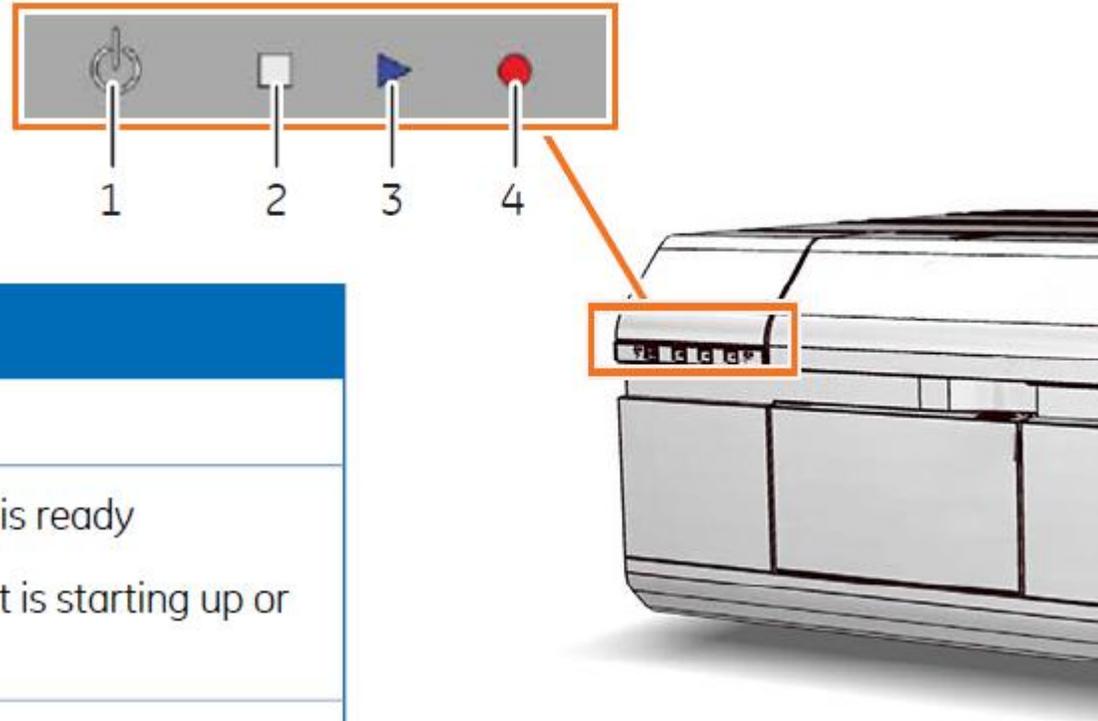


Amersham Typhoon

Part	Function
1	Air intake filter and fan
2	Exhaust outlet
3	Exhaust outlet
4	USB connector



Amersham Typhoon



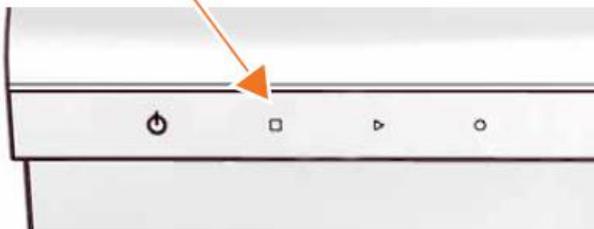
Part	Color	Function/status
1	White	On/Off button
2	White LED light	<ul style="list-style-type: none">• If steady: Instrument is ready• If flashing: Instrument is starting up or shutting down
3	Blue LED light	<ul style="list-style-type: none">• The instrument is scanning, or• The filters are being moved inside the scanner (after filter installation).
4	Red LED light	Error

开机:

- 先打开主机右侧的总开关



- 哔声后, “Ready” 长亮



- 按前面电源开关, “Ready” 灯闪烁, 自检约5min

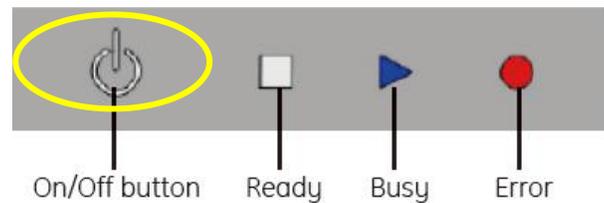


- 电脑上, 打开控制软件



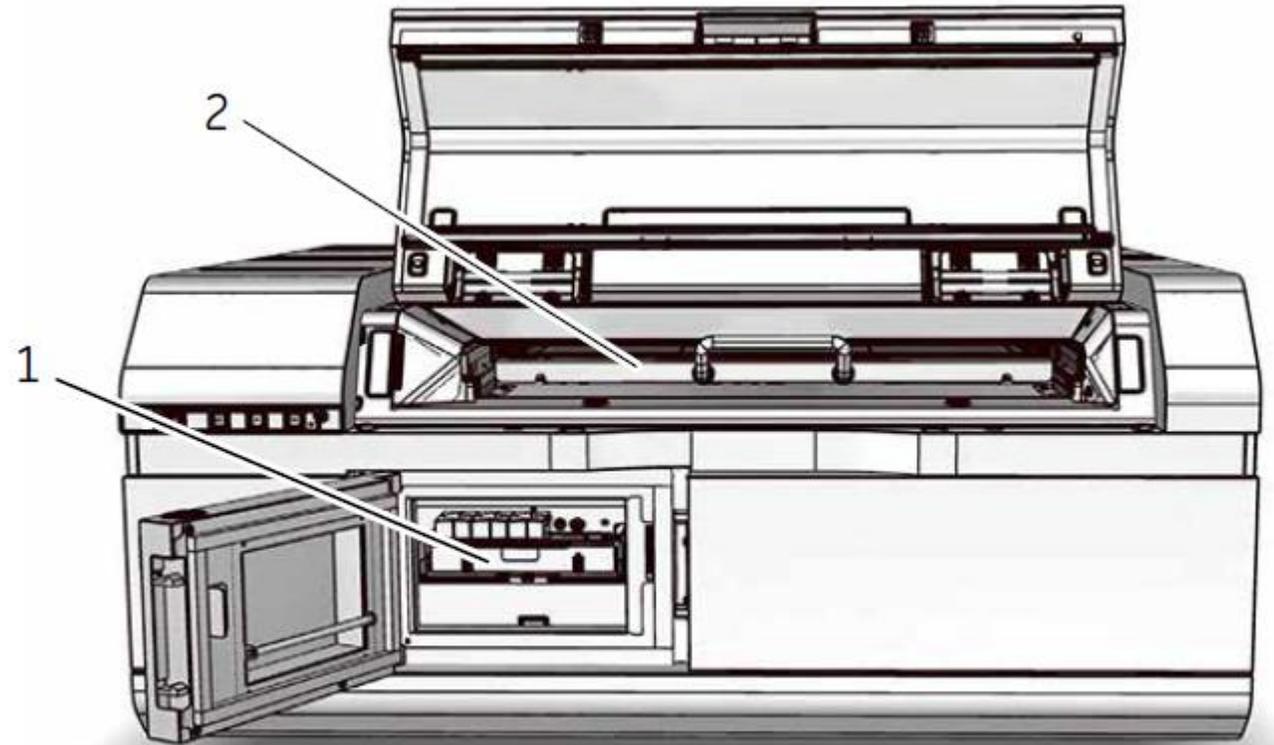
关机:

- 按住开关3秒, 指示灯闪烁后自动关闭。



Amersham Typhoon

Part	Function
1	Filter module
2	Stage



Amersham Typhoon 配件

磷屏样品盘



吸管 Suction rod



清屏仪和样品盘架

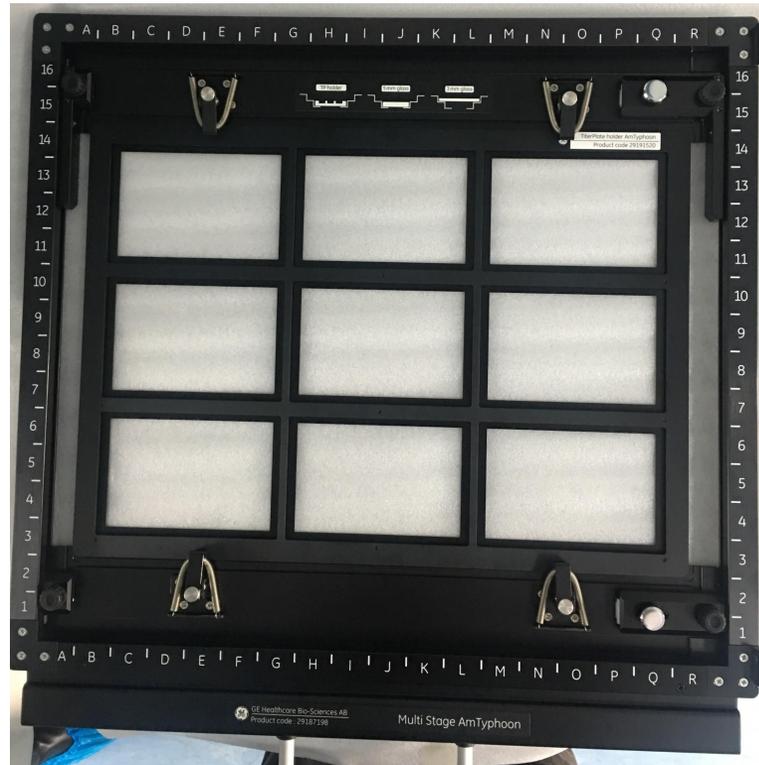


Amersham Typhoon样品盘

荧光样品盘



多功能样品盘



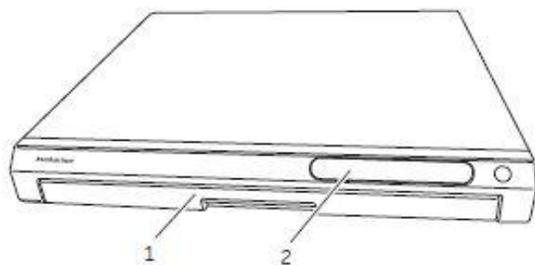
光密度OD测定



同位素磷屏压片过程

压片前准备： 磷屏放入清屏仪 清屏10-20分钟

Amersham Eraser front view



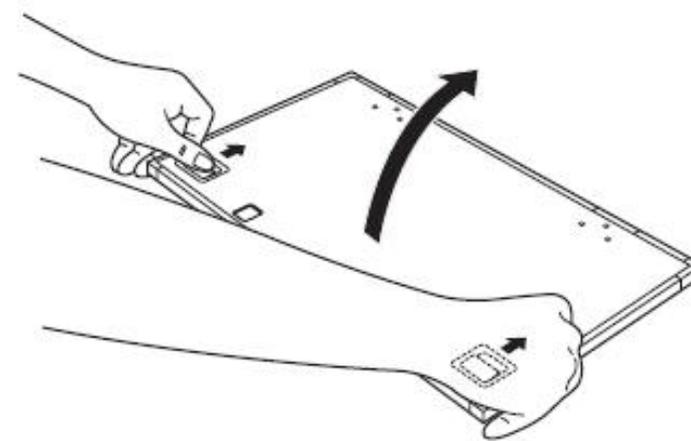
Part	Function
1	Tray
2	Panel with LED indicators



The table below shows the symbols on the display and their meaning.

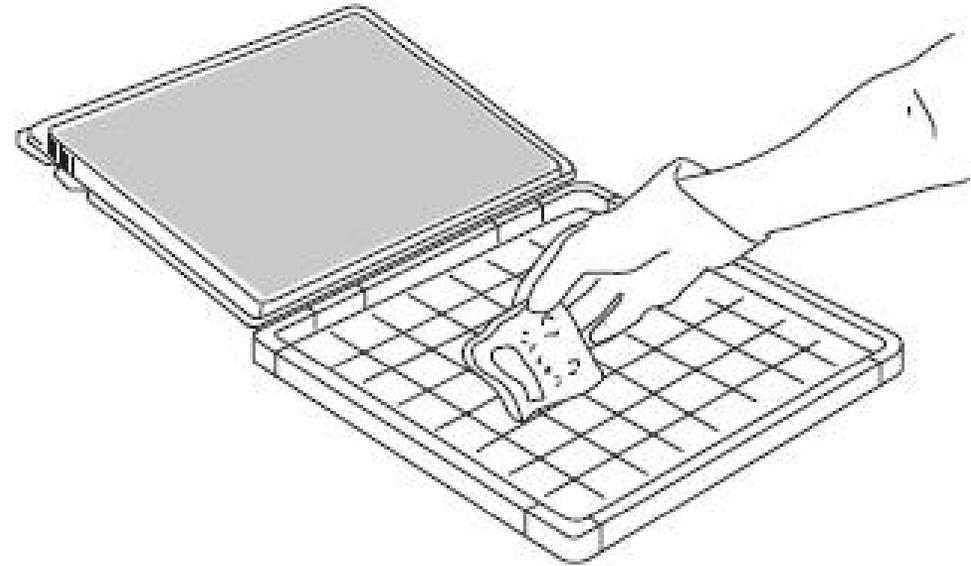
Symbol	Indicator/Button	Description
	White	Standby (power on).
	Blue	Run (erasing).
		<u>Total run time</u>
One		10 min
Two		20 min
Three		40 min
Four		60 min
	Red	Error.
	White	RUN button. Used to set erasure time and RUN . Can also be used to change erasing time during run or to turn the Amersham

打开压片盒：
压片盒背面左右两侧开关



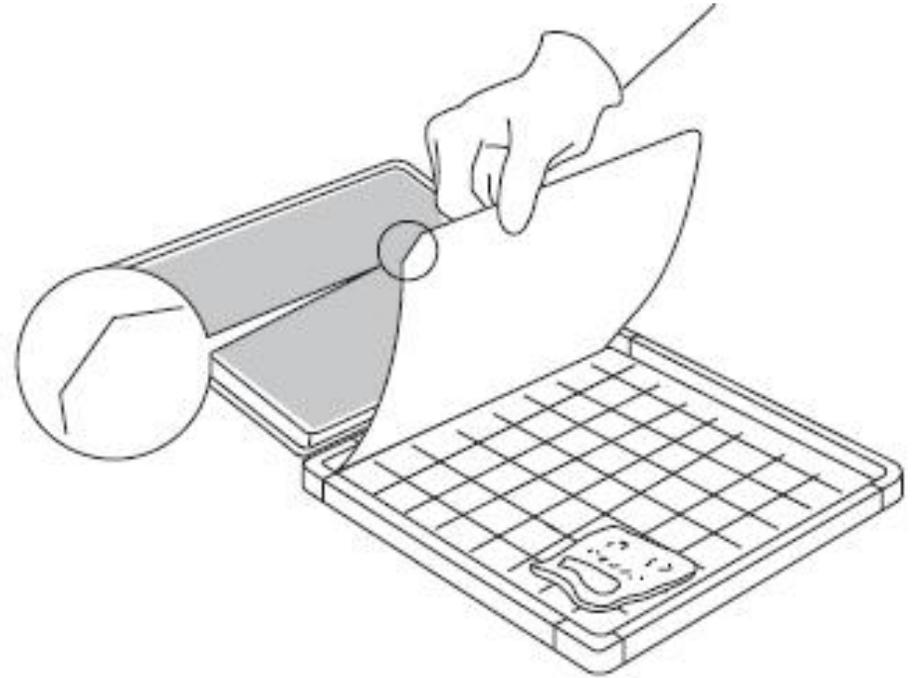
放置样品

- 样本切片放置在有方格的一侧
- 距离边界1cm以上
- 潮湿或湿润的样本要用保鲜膜包裹
- 如果需要制作放射曲线，可以将不同浓度的同位素溶液点在滤纸上，同样本一起压片



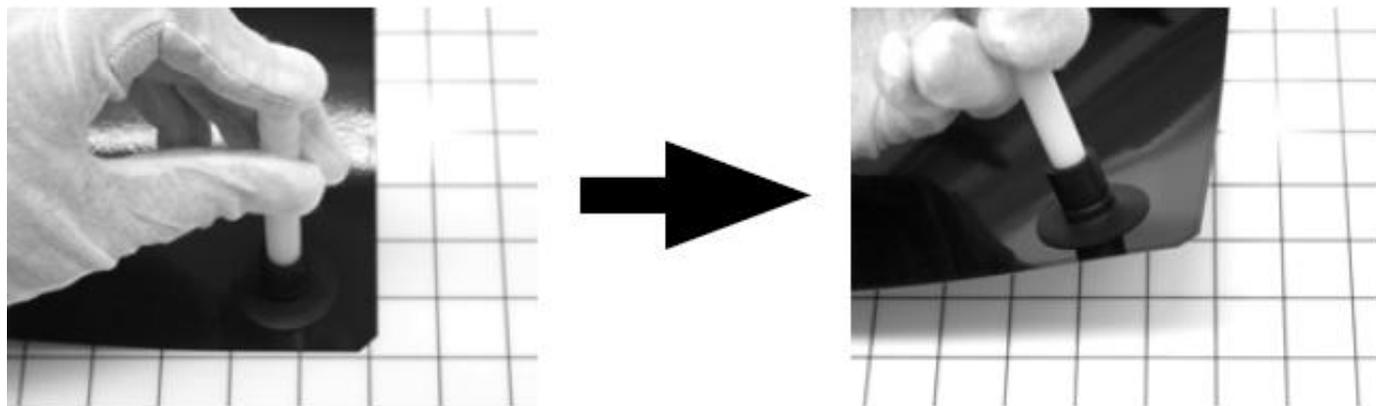
压片

- 磷屏白色的面与样本接触，黑色的一面向上
- 磷屏的切角可作为样本的方向的指示



移动磷屏

- 可用Rod（空心管）将磷屏转移至磷屏样品台上
- 尽量避免直接接触磷屏白色面
- 测过程避太阳光和紫外线



放置磷屏

- 磷屏黑色面接触磷屏样品平台的背面
- 根据磷屏切角，确认成像的起始位置
- 翻转样品盘，插入成像中，准备扫描
- 此过程避太阳光和紫外线
- 日光灯没有影响，关闭正上方光源即可

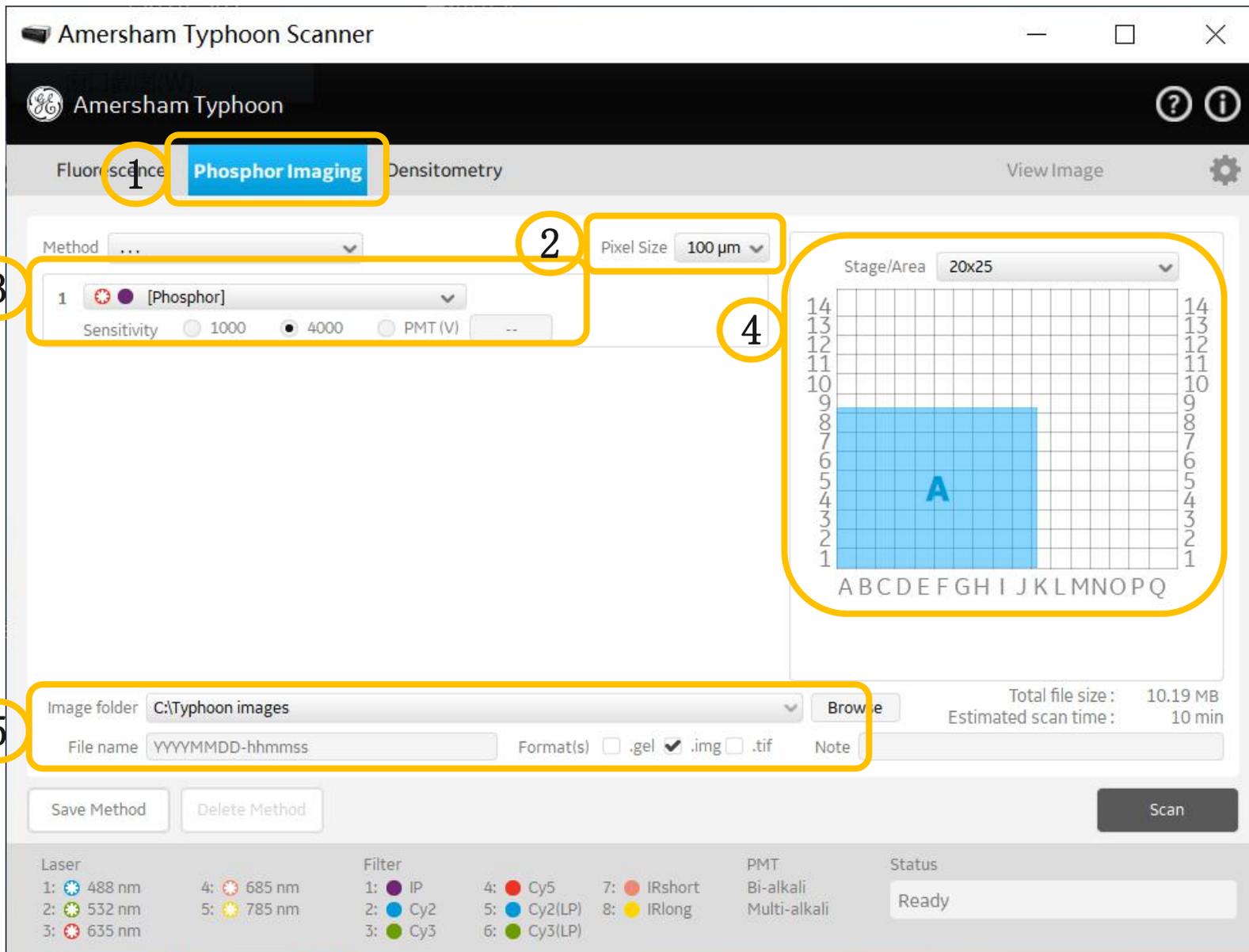


翻转样品盘



操作流程

- ① 选择磷屏功能
- ② 选择像素尺寸：10、25、50、100、200um
- ③ 选择灵敏度：1000、4000或手动选择PMT电压250-1000V
- ④ 放置样本，选择成像区域
- ⑤ 设置存储路径及文件格式：
.gel、.img、.tif



分析软件演示

Image Quant TL

- 培训资料:
- IQTL中文操作视频
- IQTL培训教材 P34



操作：打开图片---选择图形形状---自动圈定图像Autotrace---右键确定阈值Threshold
---左键圈定图像---Next---选择Histogram Peak扣除背景---添加备注Annotate---导出图像

Thank you

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