

Near-infrared fluorescence I mager

ATF9200

Features

- Excitation wavelength: 808, 980, 1064nm
- Deep cooling InGaAs CCD, the lowest cooling temperature is -80°C
- Imaging resolution: 640X512, 1280X1024 optional
- Large area motorized scanning platform
- Real-time auto focus, auto scan, auto stitching
- Four-in-one optical fiber channel, which can connect four lasers at the same time, no need to switch light sources during multi-wavelength imaging
- Novel integrated frame provides excellent stability and operability
- Modular structure design, multi-functional combination to ensure the versatility of the system

Application

- Research laboratory
- In vivo fluorescence imaging (small animals, etc.)
- Targeted tumor imaging
- Microvascular imaging, monitoring blood flow changes
- Drug targeting and kinetic studies
- Surface Spectrum
- IR

Description

ATF9200 is an auto-focusing, auto-scanning large-area near-infrared fluorescence imager carefully developed by Optosky. The near-infrared (1000-1700 nm) reduces tissue scattering and minimizes tissue absorption and autofluorescence. Compared with traditional visible light or infrared optical imaging (ie, 400-1000 nm), it has better image contrast, sensitivity and penetration depth into tissue at these wavelengths. Especially suitable for small animal in vivo fluorescence imaging, real-time surgical navigation, etc.

ATF9200 has a built-in ultra-low temperature refrigeration high-sensitivity InGaAs detector that can be cooled down to -80°C.

Model	Feature
ATF9200	RefrigerationInGaAs camera, cooled to 10°C, 640X512 pixels
ATF9200-HR	High resolution type, cooling to 10°C, 1280X1024
ATF9200-DC	deep coolingInGaAs camera, cooled to -80°C, integration time up to 5 minutes, 640X512



1. Performance

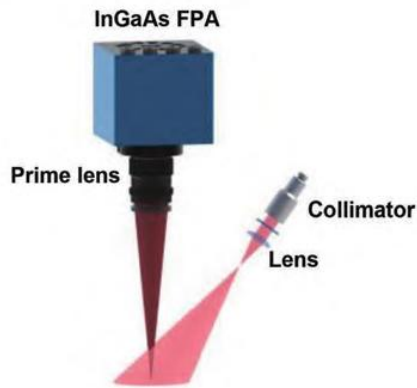
Parameters	ATF9200	ATF9200-HR	ATF9200-DC
Excitation parameters			
Excitation wavelength	808, 980, 1064nm, other excitation wavelengths can be customized		
Excitation light source	Solid state laser		
Maximum excitation power	2.5W, optional 5W		
Fluorescence receiving part parameters			
Spectral detection range	●6-10 bands are optional ●900-1700nmcontinuous scan		
Fluorescent channel selection	Electric control setting, continuous scanning or channel selection (6-10 channels)		
Spectral channel adjustment resolution	1.0 nm		
Imaging spectral resolution (FWHM)	5.0 nm		
Detector	Cooled InGaAs CCD	Cooled InGaAs CCD	Deep cooling InGaAs CCD
Detector resolution	640X512	1280X1024	640X512
Refrigeration temperature	10°C	-10°C	-80°C
Integration time	1ms-20s	1ms-20s	15μs-5 minutes
Detector interface	USB 3.0		
Dynamic Range	≥60dB	≥62dB	≥62dB
Maximum frame rate	120Hz	66Hz	100Hz
Visible light imaging system			

Light source	LED white light source	
Imaging camera	5 million pixel digital camera	
Camera port	USB2.0	
Stage		
Focusing device	auto focus	
Stage	Steel wire transmission stage (X-axis does not protrude), double clip structure	
Stage area	220X200mm	
X, Y axis electric control two-dimensional platform		
Range of movement	50X50mm, optional 100X100mm	
Mobile resolution	0.1 μm	
Positioning accuracy	1 μm	
Scanning speed	20mm/s	
Focus method	Manual, electric, real-time focus	
Z axis (electric control, auto focus)		
Focus accuracy	≤±0.2μm	
Maximum stroke	100 mm	
Focus speed	Not more than 10 s	
Dimensions	600X400X500mm	
WeightWeight	49.3 kg	
Software part		
Function	Visual imaging and real-time fluorescence spectral detection	

2. Selection table

Model	Feature
ATF9200BS	Basically, the manual stage
ATF9200AF	Auto focus
ATF9200MP	Auto-focus, auto-scan, auto-fluorescence scanning imaging

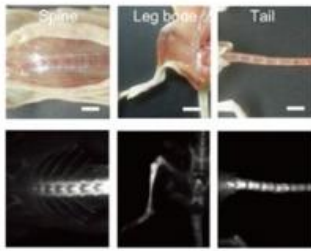
3. Schematic diagram of fluorescence imaging in the second near-infrared region



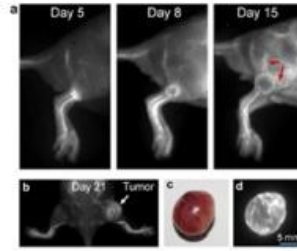
4. Picture of ATF9200



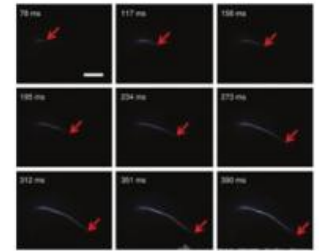
5.Application case



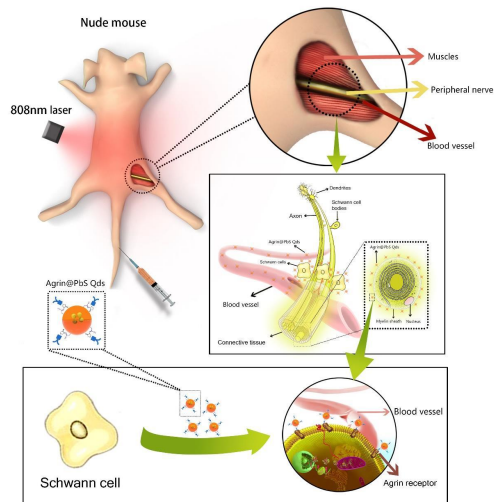
Angiography



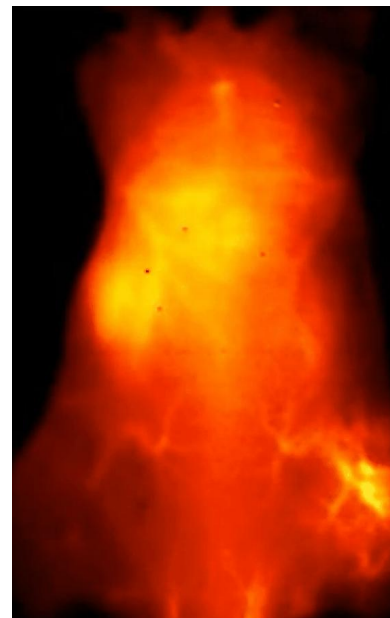
Guide real-time surgery



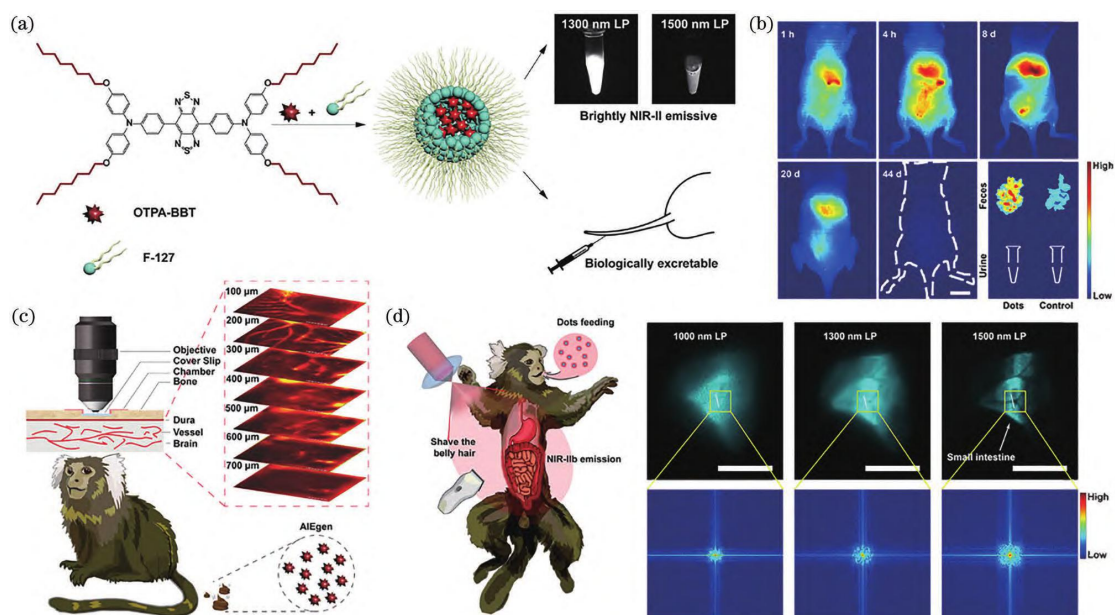
Drug targeting and kinetic studies



Mouse experiment (1)



Mouse experiment (2)



Animal experiments