Product Features

CONTRIBUTE WISDOM AND STRENGTH TO THE IMPROVEMENT OF QUALITY

- Three kinds of excitation light sources, 410nm、470nm and 560nm, are respectively used for excitation of reference, green fluorescence and red fluorescence;
- Support up to 9 channels, suitable for simultaneous experiment of multiple animals or multiple brain locations;
- Dual highly sensitive detectors enabling independent and sequential detection to avoid interference of fluorescence excitation and detection, acquiring more accurate signal
- Professional acquisition and analysis softwares are flexible and easy to operate with data processing functions available. No matlab programming is required.
- Supports multiple acquisition modes including continuous acquisition, interval acquisition, acquisition upon trigger, delayed acquisition and timing acquisition;
- Real time deltaF/F data to check scale of signal changes during acquisition;
- Supports simultaneous video acquisition of behaviors with multiple cameras;
- Customized adjustment of output signal parameter, easily trigger and control external excitation equipment to achieve closed-cycle control of excitation and recording

Product Parameters

CONTRIBUTE WISDOM AND STRENGTH TO THE IMPROVEMENT OF QUALITY

Wavelength of excitation light	410nm 470nm 560nm
Power	Min 0μW, Max≥100μW, adjustable with an accuracy of 0.1μW
Number of channels	9
Frame rate of fluorescent sampling	Max 300fps
Digital signal interface	4Input 4Output
Signal output	Output frequency 0-500Hz, adjustable output pulse width and duration
Marking	Manual marking (10), automatic marking (4), ROI marking (9)
Behavior camera	1920*1080(30fps) 1280*720(60fps) Switchable among multiple frame rates of resolution

RWD Life Science Co.,Ltd

Add: 19-20/F, Building 7A, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District, Shenzhen, Guangdong, P.R. China **E-mail:** rwd@rwdstco.com

RWD

TriColor Multichannel Fiber Photometry System

R820

Introduction

CONTRIBUTE WISDOM AND STRENGTH TO THE IMPROVEMENT OF QUALITY

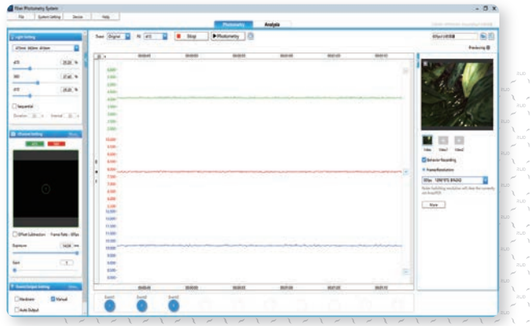
The fiber photometry system records changes in the fluorescence intensity of neurons in a specific brain area to reflect neuronal population activity. In the study of neural circuits, the fiber photometry system can perform long-term stable monitoring of the neurons of freely moving animals, and explore the correlation between neural activity and animal behavior.

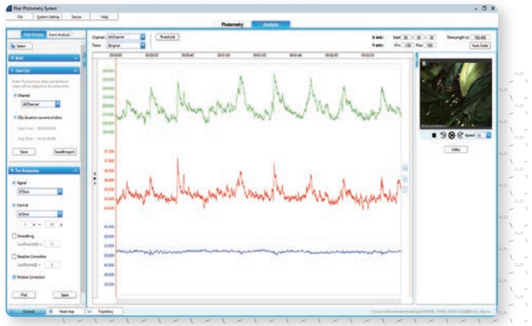
R820 TriColor Multichannel Fiber Photometry System has three wave lengths, 410nm, 470nm and 560nm, of which 410 is used to acquire reference signal and eliminate noise. The system can record signal of green fluorescence indicator like GCaMP and dLight or neurotransmitter probe and red fluorescence indicator like RCaMP, jrGECO1a or neurotransmitter probe.

Software functions

CONTRIBUTE WISDOM AND STRENGTH TO THE IMPROVEMENT OF QUALITY

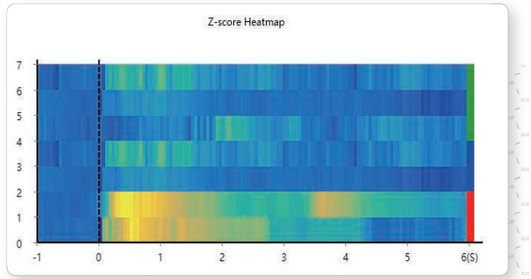
Professional acquisition and analysis softwares

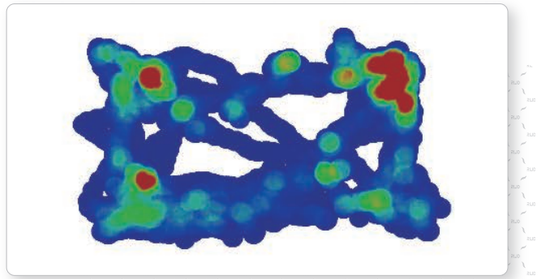


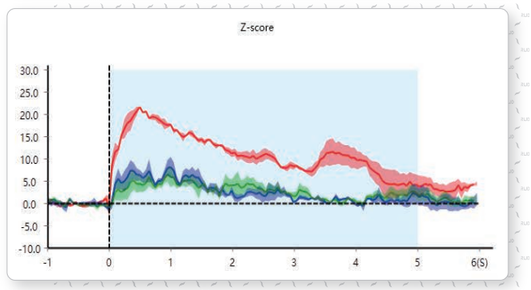


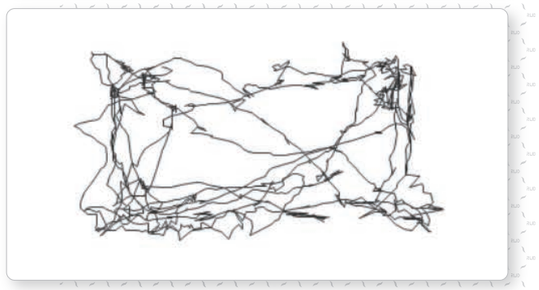
- Professional acquisition and analysis software enable stable data acquisition and easy processing. Data analysis includes data clipping, bleaching correction, smoothing, movement correction, event heat map, peak statistics, area under curve and heat map of behavior trajectory.

Rapid generation of heat map









- Generation of Peri-event heat map with one click. Supports comparison of data groups. Freely choose and handle events of interest, and flexibly add or remove events. The results can be easily saved and exported to DetaF/F, Z-score, Peri-event, peak statistics and AUC. Information in the image can be freely edited by saving the image as editable SVG format.

Appearance

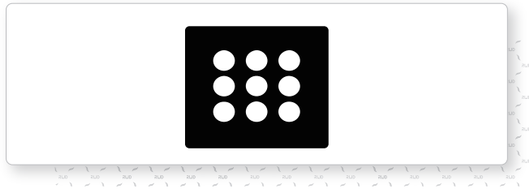
CONTRIBUTE WISDOM AND STRENGTH TO THE IMPROVEMENT OF QUALITY

- Lightweight, and optical fiber focusing interface supports optical fibers of different sizes

- 4 Input / 4 Output, electrophysiological grounding port

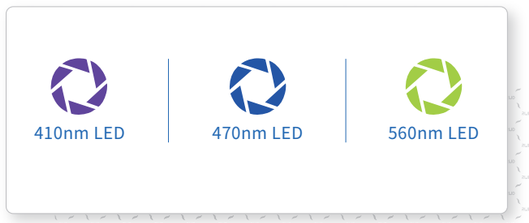
Hardware functions

CONTRIBUTE WISDOM AND STRENGTH TO THE IMPROVEMENT OF QUALITY

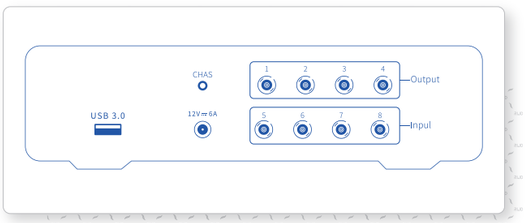


- Supports up to 9 channels enabling high throughput acquisition and simultaneous detection of multiple downstream and upstream brain locations; optical fiber of low fluorescence can effectively reduce interference by background fluorescence

- Dual highly sensitive detectors with green fluorescence and red fluorescence entering corresponding detector; independent and sequential detection to avoid interference of fluorescence excitation, acquiring more accurate signal



- Stable LED light source and 3 types of excitation light sources to enable free combination of modes and support excitation of reference signal, green fluorescence and red fluorescence



- 4 Input ports, support a variety of external TTL signal trigger and marking; 4 Output ports, support outputting TTL signals to trigger external equipment; customize output parameters to meet the need of closed-cycle control.