DCI AND BLOODHOUND

ULTRA-FAST WASHOUT SPEEDS

Performance enhancing upgrades for improved imaging analysis

Concept

The Dual Concentric Injector (DCI) is a robust high-efficiency sample transport device designed to move particles from the ablation site directly to the tip of the ICP injector with low mixing, resulting in much faster washout times.

Bloodhound is a sample chamber modification that works with the DCI to further reduce washout times.

Overall, the DCI and Bloodhound can give up to a 100 fold improvement in washout speeds, allowing much faster scan rates and repetition rates to be used for much faster imaging.

Elemental Scientific LASERS

INNOVATION TO ILLUMINATE

DCI and Bloodhound
Specifications summary

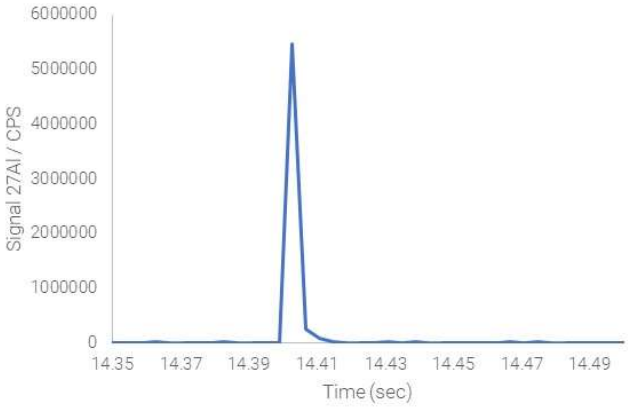
Features

Dual concentric injector (DCI) reduces washout speeds by factor of up to 20

Improved spatial resolution in imaging experiments

Faster imaging speeds with less lateral "smearing"

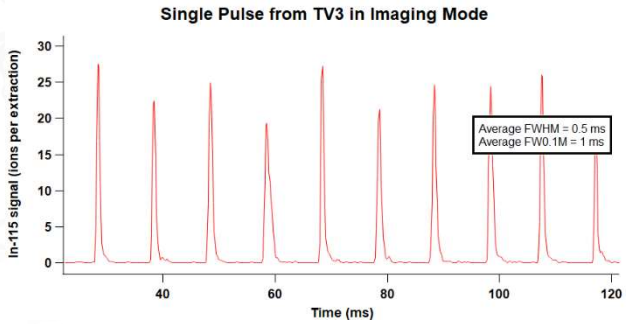
Improved signal-to-noise



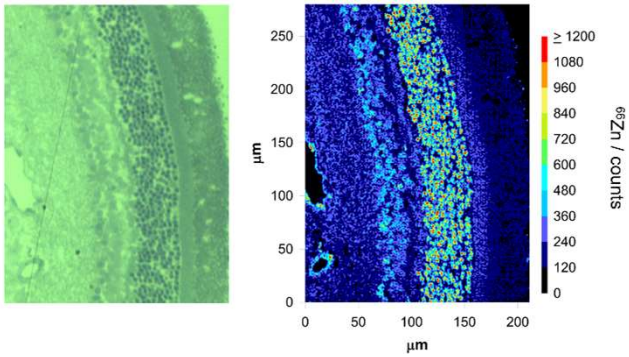
Ultra-fast transition of a single shot using DCI and Bloodhound

Performance Specifications	
DCI washout	50 ms
Bloodhound washout	10 ms
DCI fitting time	<5 minutes
Compatibility	
Platforms	NWR193, NWR213, NWRfemto, NWRimage
Sample chambers	TwoVol2 (100mm) CryoCell

The DCI torch interface



The TwoVol3 readily provides peak widths of < 1 ms as demonstrated by the above analysis of a gelatin standard.



Imaging at 1 um pixel resolution of rat retina using ESL's DCI coupled to the NWRimage BIO. Analysis completed in <1 hour (20 x faster than conventional LA), and compared to light microscope iamges captured using the 20X objective of the NWRimage. Images courtesy of Dr A. J. Managh.

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