

Errata: Two-photon microscope for multisite microphotolysis of caged neurotransmitters in acute brain slices

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This article [*J. Biomed. Opt.* **14**, 064033 (2009)] was originally published online on 31 December 2009 with errors in Table 1. The following corrections were made:

- 1) In column 2, row 2, the first numeral 2 underneath the square root bracket was removed;
- 2) In column 2, row 4, $\theta_{\text{compensated}}$ was changed to $\theta_{\text{dispersion}}$. Also “gratting” was changed to “grating.”

3) In column 4, row 6, the value “627” was changed to “672.” The corrected table appears below.

In addition, in the line following Eq. (11) on page 8, the first super script -7 was corrected to -5 to read “with the parameters $\lambda=7.2 \times 10^{-5}$ cm, $c=3 \times 10^{-5}$ cm/fsec”. All versions of the article were corrected on 12 January 2010 and the article appears correctly in print.

Table 1 Theoretical spectral dispersion and compensation of TeO₂ AODs. The following parameters are used: wavelength $\lambda=720$ nm; spectral bandwidth $\Delta\lambda=3.68$ nm; AOD aperture $D=10$ nm; acoustic velocity $v=676$ m/sec; scan range $\theta_{\text{scan}}=42.6$ mrad; diffraction $\theta_{\text{diffraction}}=0.0634$ mrad; grating pitch $d=150$ grooves/mm; effective compensation frequency $f_{\text{comp}}=vd\sqrt{2}=71.1$ MHz; and compensation $\theta_{\text{grating}}=\sqrt{2}\Delta\lambda f_{\text{comp}}/v=552$ μrad .

		$f_{\text{min}}=50$ MHz	$f_0=70$ MHz	$f_{\text{max}}=90$ MHz
2-D spectral dispersion $\theta_{\text{dispersion}}$	$\Delta\lambda\sqrt{f_x^2+f_y^2}/v$	385	539	639 μrad
Dispersed resolution N	$\theta_{\text{scan}}/\theta_{\text{dispersion}}$	110	79	61 spots
Spot elongation S	$\theta_{\text{dispersion}}/\theta_{\text{diffraction}}$	6.1 \times	8.5 \times	10.9 \times
2-D spectral dispersion $\theta_{\text{compensated}}$	$ \theta_{\text{dispersion}}-\theta_{\text{grating}} $	167	13.1	141 μrad
Compensated resolution N'	$\theta_{\text{scan}}/\theta_{\text{compensated}}$	253	672 ^a	302 spots
Compensated spot elongation S'	$\theta_{\text{compensated}}/\theta_{\text{diffraction}}$	2.64 \times	0.21 \times	2.22 \times

^aWhen $\theta_{\text{compensated}} < \theta_{\text{diffraction}}$, the number of compensated spots becomes $N' = \theta_{\text{scan}}/\theta_{\text{diffraction}}$, and the scanning is diffraction limited.