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## Author Correction:

# High-performance vector bending and orientation distinguishing curvature sensor based on asymmetric coupled multi-core fibre

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Correction to: *Scientific Reports* <https://doi.org/10.1038/s41598-020-70999-8>, published online 20 August 2020

This Article contains an error in the Reference list. The authors omitted the below paper, which is shown as Reference 1. This should be cited in the Results section as below:

“In the case of the bent MMCF, the fibre elongates/compresses at the circular bend and the local index changes because of stress-optic effect upon bending. The index transformation is given as follows<sup>22,34</sup>.”

should read:

“In the case of the bent MMCF, the fibre elongates/compresses at the circular bend and the local index changes because of stress-optic effect upon bending. The index transformation is given as follows<sup>22,1</sup>.”

Additionally, Equation 5 contains errors.

$$n'(x, y) = n(x, y) \left[ 1 - \frac{n(x, y)^2 x}{2R} (P_{12} - \nu(P_{11} + P_{12})) \right] \exp\left(\frac{x}{R}\right)$$

should read:

$$n'(x, y) = n(x, y) \left[ 1 - \frac{n(x, y)^2}{2R} (P_{12} - (P_{11} + P_{12})) \right] \left( 1 + \frac{x}{R} \right)$$

Finally, this Article contains an error in the legend of Figure 2:

“(b) Experimental setup. SCLS super continuum light source.”

should read:

“(b) Experimental setup. SCLS denotes supercontinuum light source.”

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## Reference

1. R. T. Schermer and J. H. Cole, Improved Bend Loss Formula Verified for Optical Fiber by Simulation and Experiment, IEEE Journal of Quantum Electronics, 43, 899-909 (2007)



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