

Corresponding Author Name: _____

Manuscript Number: _____

Reporting checklist for manuscripts with a claim of lasing

In order to promote clarity in claims of lasing we strongly recommend that authors provide the following information when making a claim of lasing action in a new material or device design. We appreciate that in certain circumstances, e.g. random lasers and lasing from nanoscale areas, capturing all recommended data may not be feasible, but we encourage authors to provide the strongest evidence possible. **Please supply a response to the checklist alongside your submitted manuscript, and ensure that the relevant responses are also provided in the main manuscript, methods section or supplementary information as appropriate.** The completed checklist will be shared with reviewers.

▶ Laser data:	Response
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1. Have plots of device output power versus pump power been provided over a wide range of values, and do they show a clear threshold?
2. Have plots of spectral power density for the emission been provided at pump powers below, around and above threshold and do they indicate clear linewidth narrowing of the emission at the lasing transition? Please state the resolution of the spectrometer used to make the measurements.
3. Has the coherence or polarization of the laser emission been measured?
4. Has the spatial profile of the emission been measured or imaged, and does it indicate the existence of a well-defined beam above threshold?
5. Please ensure the pumping conditions (continuous-wave, pulsed, temperature of operation) are clearly stated in the manuscript. In particular, please ensure that threshold values are provided as a density value e.g. W cm^{-2} or J cm^{-2} taking into the account the area of the device.

