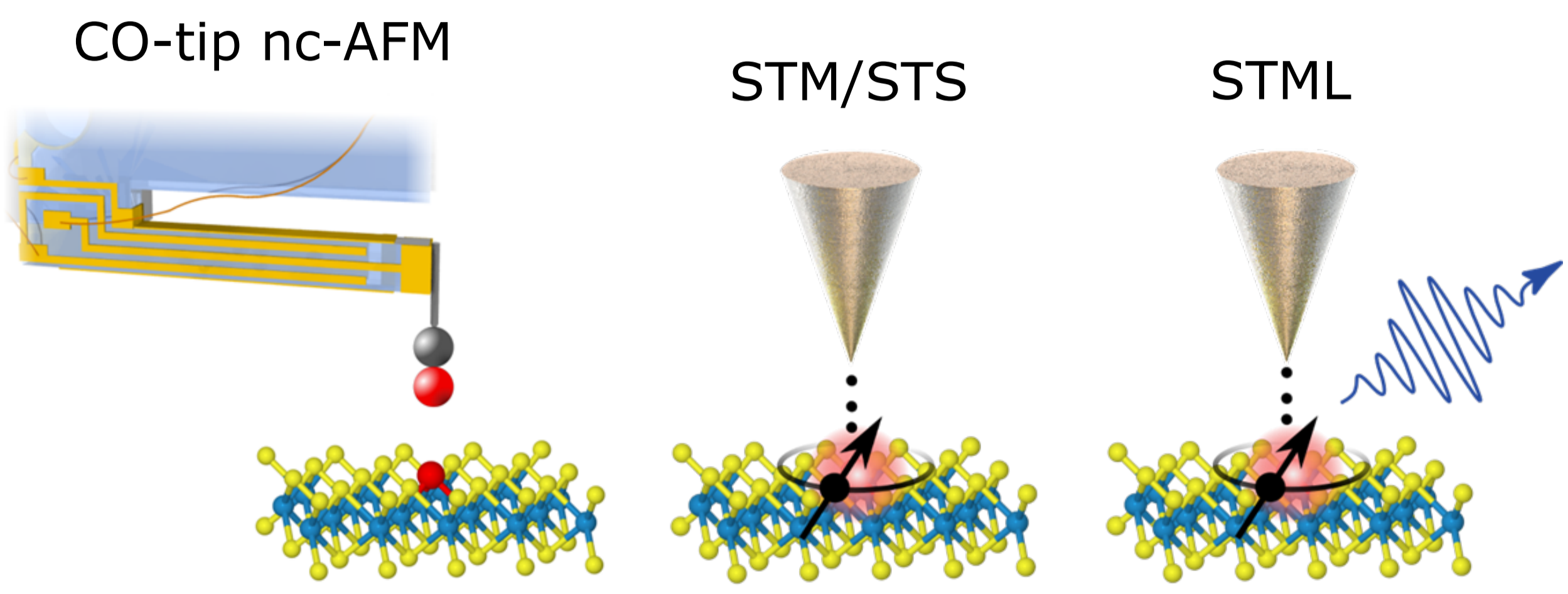


Electrically driven photon emission from individual atomic defects in monolayer tungsten disulfide [1]

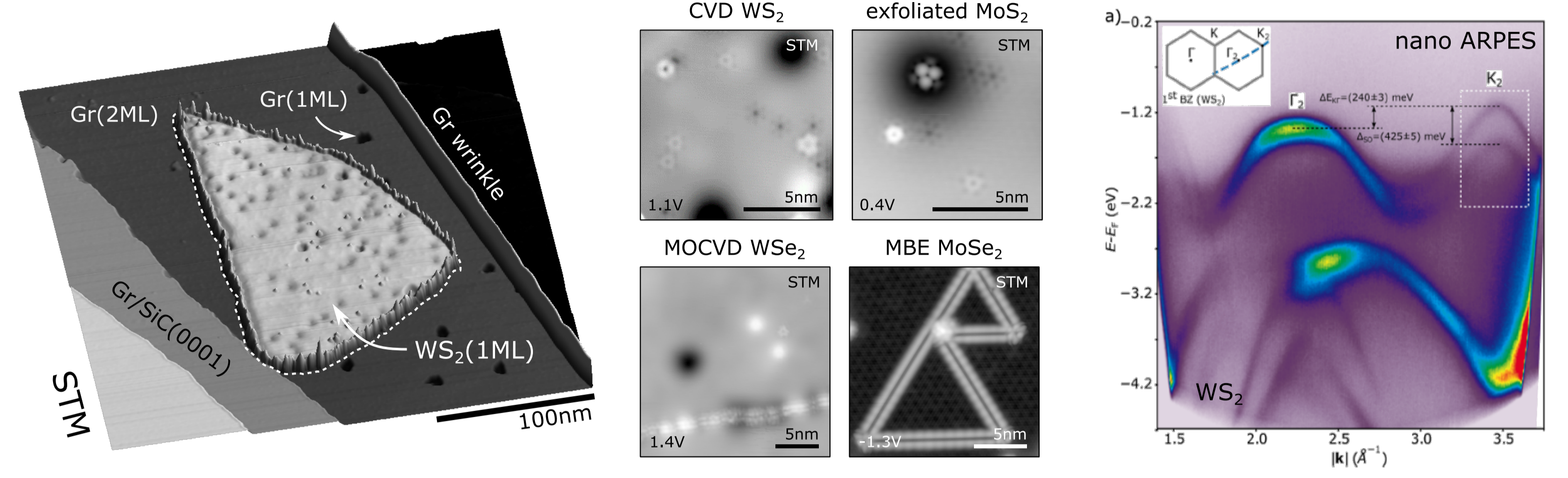
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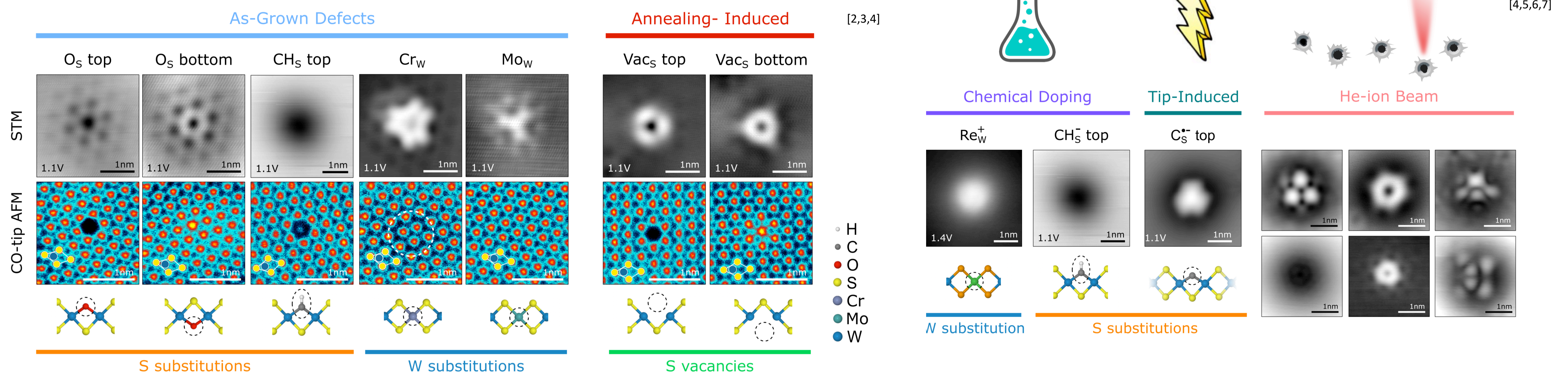
Scanning Probe Methods



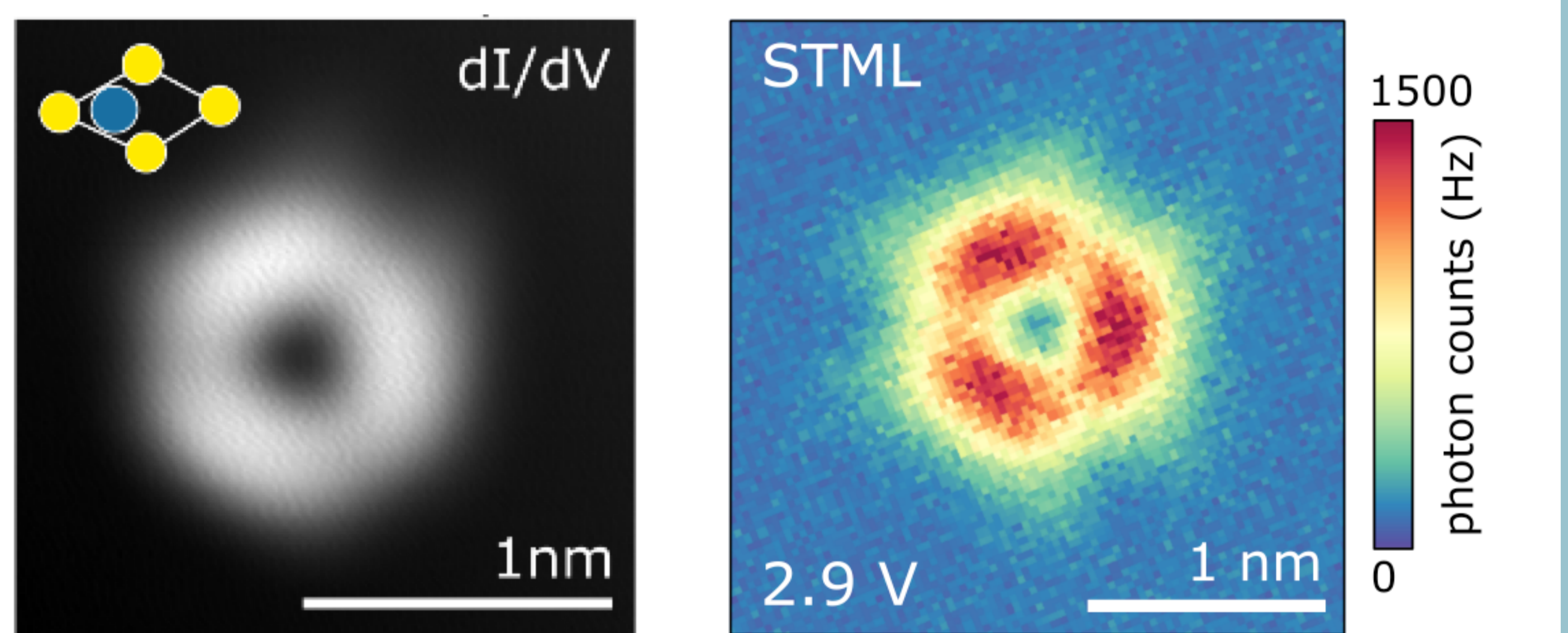
TMDs on graphene/ SiC



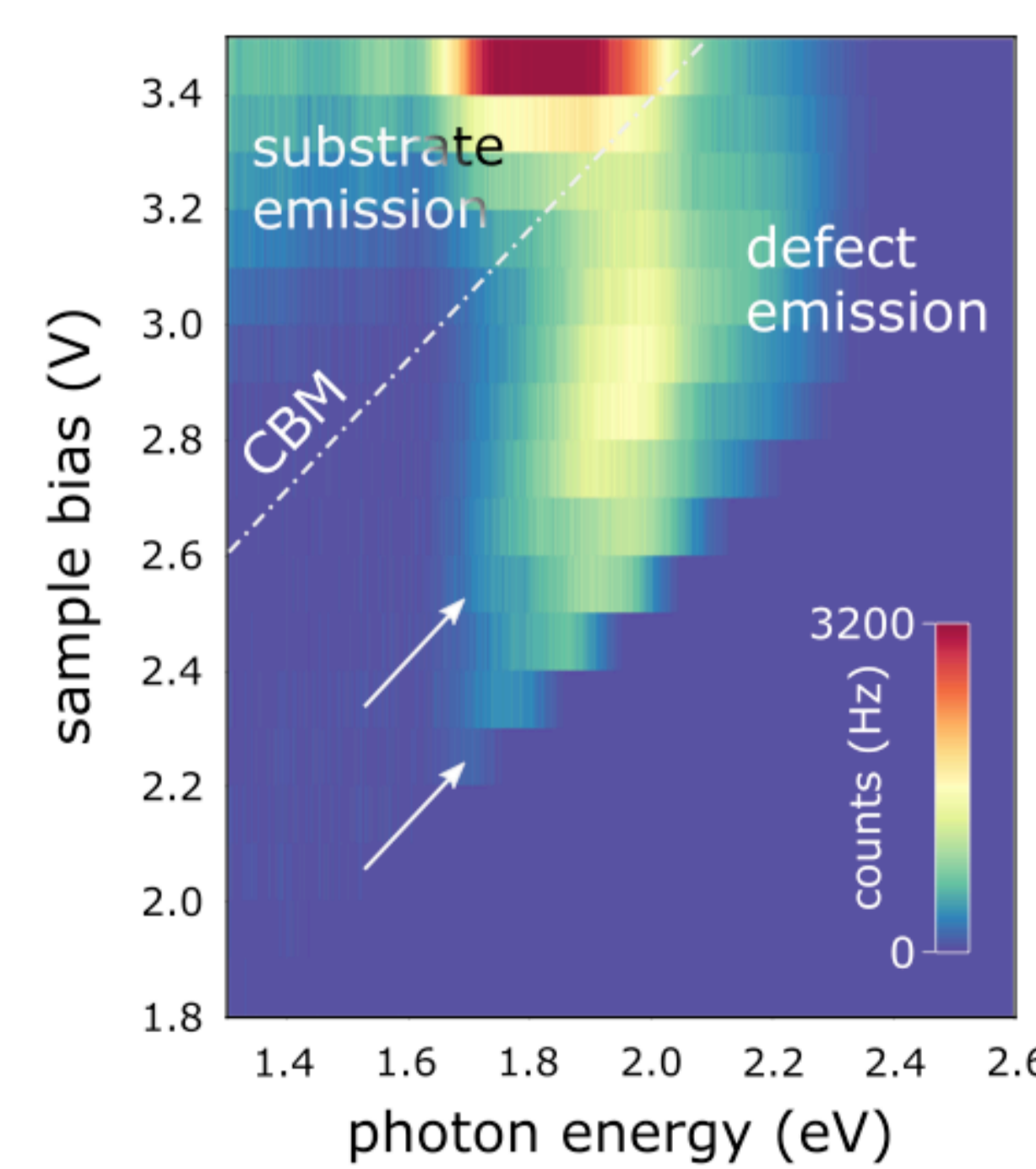
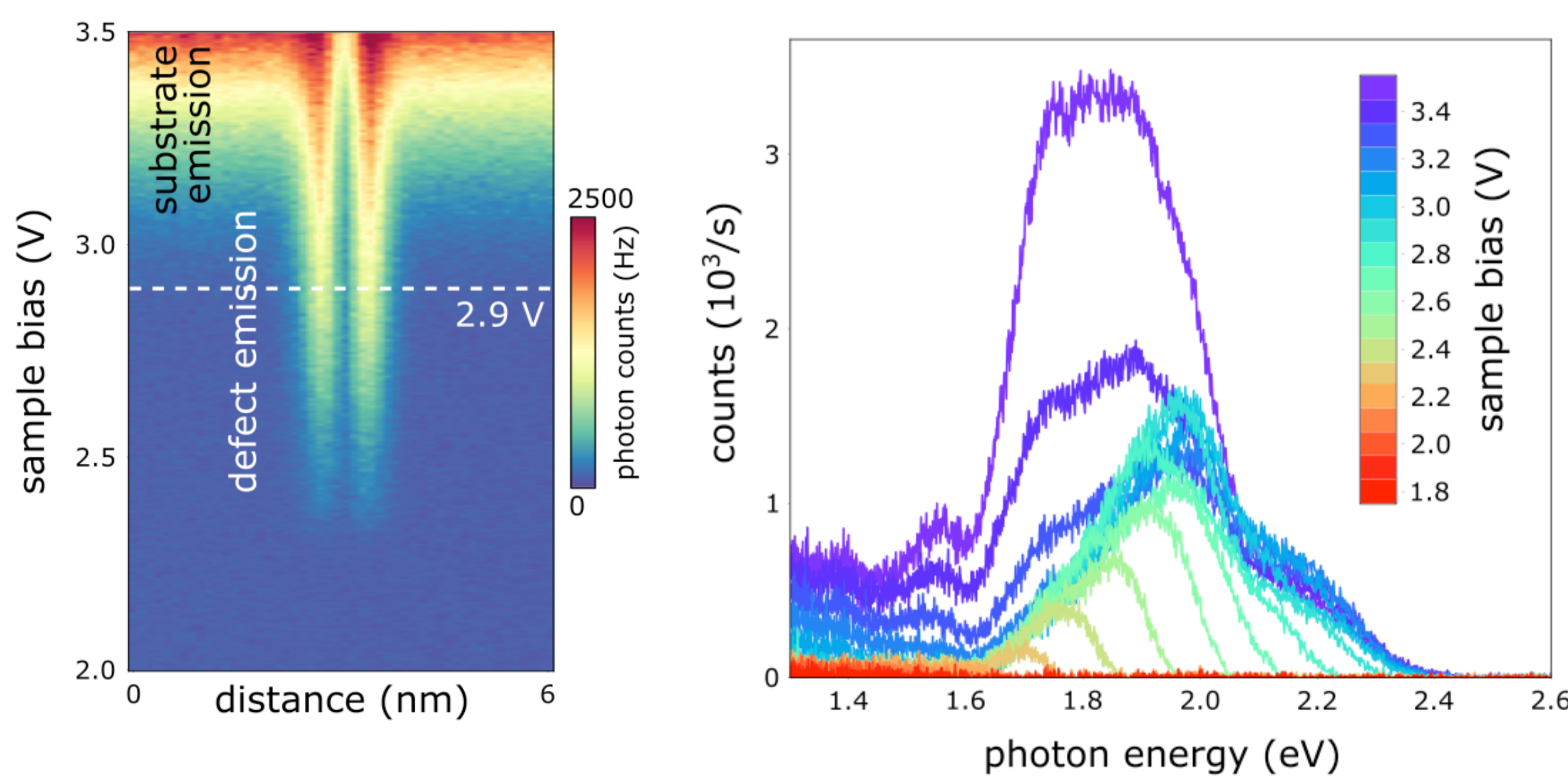
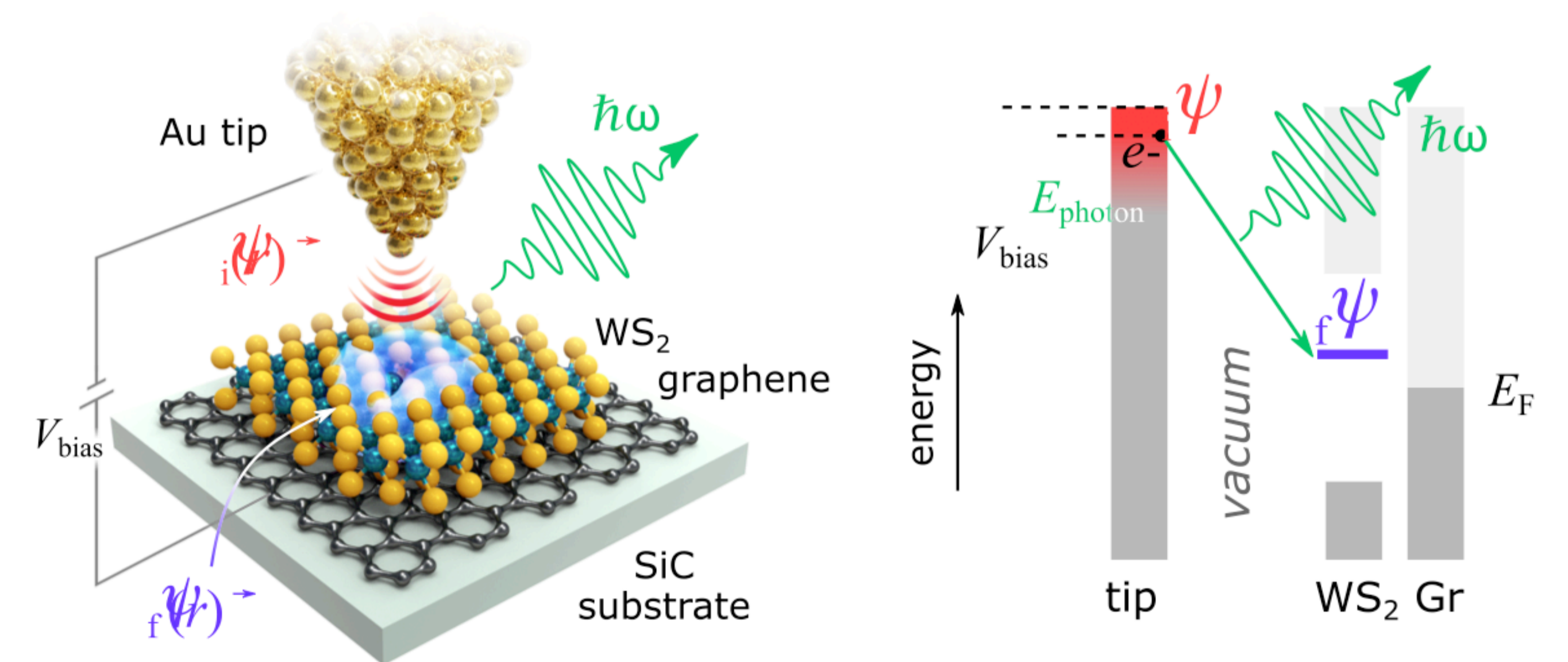
Point defects in TMDs



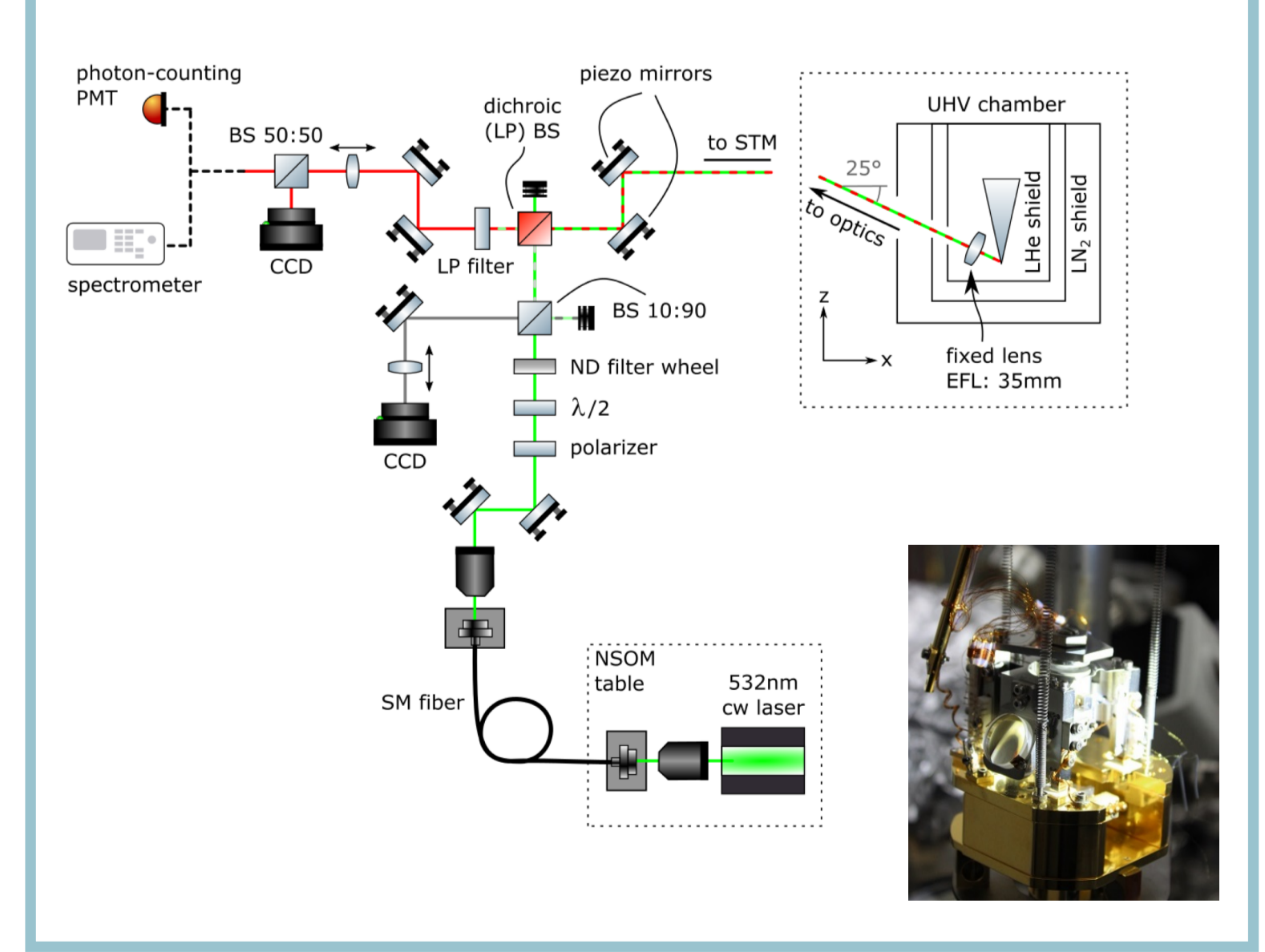
Emission from a single sulfur vacancy



STM Light emission: mechanism



instrumentation



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REFERENCES AND ACKNOWLEDGEMENTS

- [1] B. Schuler et al., *Sci. Adv.* Vol. 6, no. 38, eabb5988 (2020)
[2] Schuler, B. et al., *ACS Nano* 13, 10520 (2019)

- [3] Schuler, B., et al. *Phys. Rev. Lett.* 123, 076801 (2019)
[4] Cochrane, K.A., et al. *2D Materials* 7, 3 (2020)
[5] Kozhakhmetov, A., et al. under review, *Adv. Mater.*
[6] Cochrane, K.A., et al. arXiv preprint arXiv:2008.12196 (2020)
[7] Mitterreiter, E., et al. *Nano Lett.* 20, 6, (2020)

