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# Nanomaterials Characterization for Functional Devices: The role of Raman Spectroscopy

Abstract (Arial Narrow 12)

Low-dimensional nanomaterials have made their way into several technologies and applications. However, new materials and new applications of the same continue to emerge. In this talk, I will focus on several such examples comprising 2D semiconductors<sup>1-4</sup> and 1D semiconductors<sup>5</sup>. I will specifically highlight how near-field and far-field optical spectroscopy and Raman Spectroscopy can be valuable tools in characterizing such materials for fundamental understanding of their opto-electronic properties and also their applications into functional devices.

I will end the talk with a broad perspective on the need to rapidly and accurately characterize nanomaterials and their interfaces and why that is critical for future applications in the semiconductor industry.

## References

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