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**Instrumentation for Characterization of Nanostructured Lasers**

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**Abstract**

Nanophotonic devices such as quantum-dot lasers are important for next-generation computing and communication systems, where optics will play a significant role because of many advantages such as large bandwidth, low power consumption, and potentially small form-factor. Although nanometer-scale phenomena and structures are being actively studied, little effort is being expended in the development of instrumentation for the characterization of new innovative devices. As a result, researchers working on devices based on nanometer-scale phenomena often have to develop their own characterization instrumentation. This project is aimed at developing a system for electrically energizing nanophotonic devices so that their emission characteristics can be studied. This characterization is important as a prelude to developing integrated nanophotonic systems for commercialization.