



















PC cavities, with low thresholds of  $0.3 \mu\text{W}$  and  $19 \mu\text{W}$  for 780 nm and 980 nm pumping, respectively. Such a low threshold laser can be used in a variety of applications, such as optical communications or chemical sensing. We have also demonstrated that pumping below the GaAs band gap reduces heating of the cavity, while still enabling lasing. We have investigated the wavelength dependence of the lasing threshold, with increasing threshold for decreasing emission wavelength, resulting from higher material absorption. Finally, we have demonstrated that the nanobeam cavity laser can be tuned by over 7 nm by a fiber taper in close proximity to the cavity. The fiber taper can also serve as a pathway to efficiently pump the cavity.

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