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(57) **Abstract:** A laser device includes a gain medium including a facet. The laser device includes a metasurface including a plurality of supercells. The metasurface is disposed on a substrate and configured to reflect and focus a first portion of light from the facet back to the gain medium as a feedback beam. The metasurface can be configured to reflect a second portion of the light as an output beam at an angle that is nonzero relative to a direction of the feedback beam. The metasurface can be configured to transmit a second portion of the light as an output beam through the metasurface away from the facet. The emission wavelength of the laser device can be tuned by translating the metasurface. The output beam can be collimated towards a fixed direction while tuning the wavelength.

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