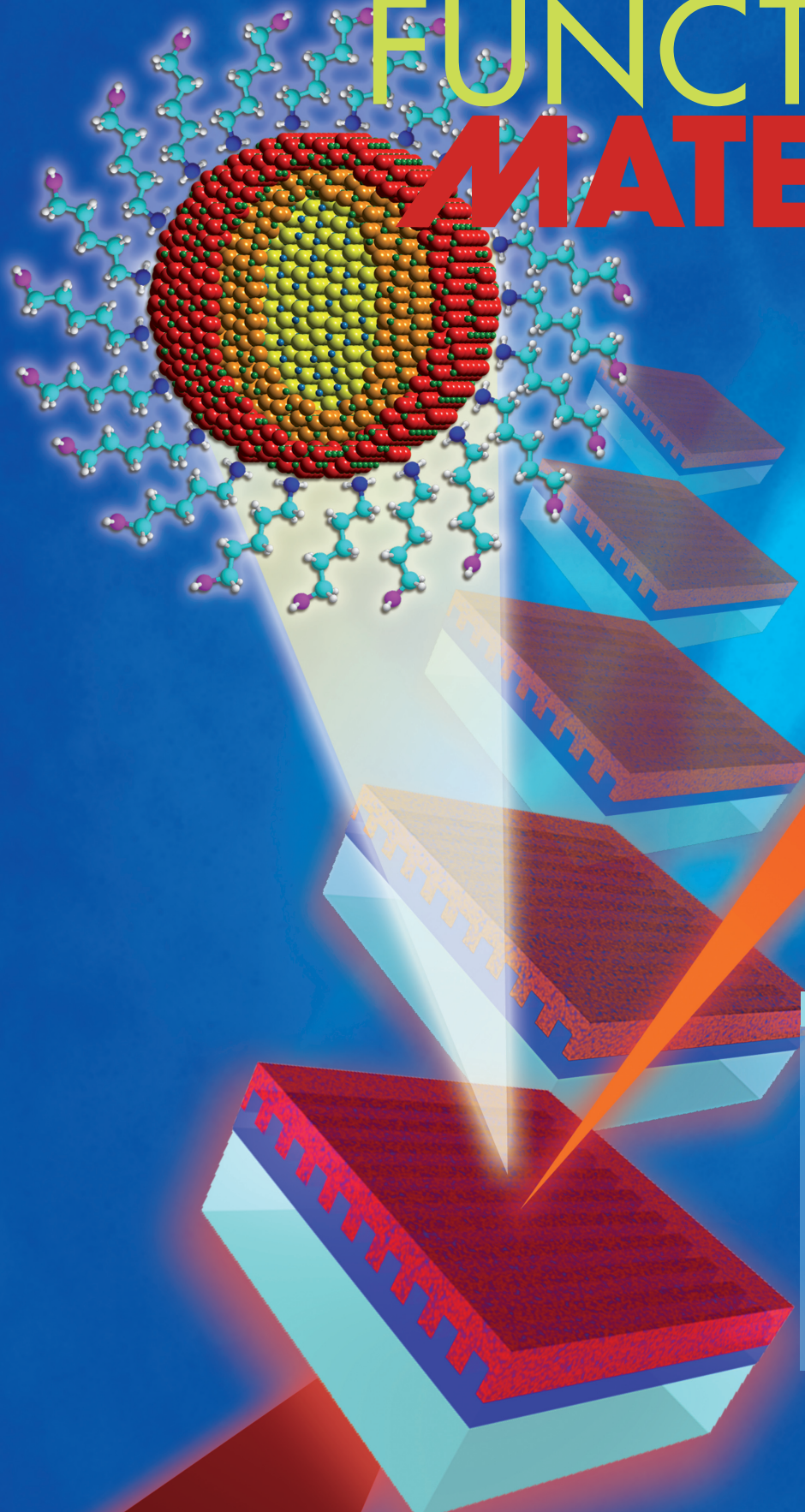
ADVANCED FUNCTIONAL MATERIALS



## DISTRIBUTED FEEDBACK LASER

An up-converted distributed feedback laser prototype is realized using CdSe-CdZnS-ZnS quantum dots as the optical gain material, as reported by Raffaella Signorini and coworkers on page 337. The incorporation of quantum dots within a zirconia matrix affords a quantum dot ink that, when deposited on a soft-lithographed grating, forms an all-solution processed microcavity laser. Optical pumping of the device in the one-photon (UV) or two-photon (NIR) absorption regions of the quantum dots enables efficient lasing to be achieved at visible wavelengths.

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