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**COVER** Artificial quantum box structure. Sketch (below) shows GaAs quantum boxes (in red) formed in molecular-beam-grown crystal by interdiffusion of surrounding layer areas. Photo (above) is image of boxes formed with their own luminescence in an electron microscope. The boxes are 1000 angstroms in size and are spaced 10 micrometers apart. See page 1023. [Figure prepared by A. C. Gossard and P. M. Petroff, AT&T Bell Laboratories, Murray Hill, NJ 07974]

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