Simulation of the reaction of nuclear waste glass with water. As the glass reacts, actinides concentrate as a stable mineral phase (blue areas) in the reacted glass and, during continued interaction with ground water, are released to solution as primary colloids. Models of nuclear repository integrity that fail to take colloid formation and transport into account may underestimate the potential for radioactivity release. See page 649. [Image: John K. Bates, Argonne National Laboratory]

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