BUILDING THE OCEAN CRUST: EASY AS 1, 2, 3?

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Understanding how ocean crust is formed is important not only because of its great abundance at the surface of the earth, but also because its formation and recycling drive the differentiation of our planet. Recent ODP drilling into the deep foundations of ocean crust provides an unprecedented view of cooling, crystallization, melt migration, and melt storage processes. These and other results suggest strongly that the traditional three-layer model of ocean crust may not be applicable to some of the crust formed at slow-spreading ridge systems. Dr. Batiza will discuss these exciting findings which are revolutionizing our ideas of how ocean crust forms, and plans for future crustal drilling, including penetrating an intact section of Pacific ocean crust. Dr. Batiza sailed as an igneous petrologist on DSDP Leg 61 (Western Pacific) and as co-chief scientist on ODP Leg 142 (East Pacific Rise).