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The CombiClover 384™ Plate: A Novel High-Density Plate for Protein Crystallization. Hidong Kim, Craig Sterling, Lance Stewart, deCODE biostructures, Inc., and Emerald BioSystems, Inc., 7869 NE Day Rd. W, Bainbridge Island, WA 98110 USA.

A novel plate has been developed for protein crystallization. The CombiClover 384 plate is an SBS-format protein crystallization plate containing 96 Clover crystallization chambers. The patented Clover chamber (US patent # 6,039,804) allows simultaneous crystallization screening of up to four different target samples against a single crystallization condition. The 96 Clover chambers of the CombiClover 384 plate comprise 384 crystallization drop chambers, and permit the simultaneous crystallization screening of four different protein samples against typical 96-condition crystallization screens in a single plate. The spacings between either neighboring drop chambers or reservoirs within rows and columns are the same, facilitating programming for crystallization robots. The CombiClover 384 plates are molded in cyclic olefin copolymer (COC). COC is an excellent material for protein crystallization applications due to its high transparency, low water permeability, and broad-range chemical resistance. The CombiClover 384 plate is a crystallization plate designed for the high-throughput demands of modern protein crystallography.