



Supplementary Figure 1 Sclavi

Supplementary Figure 1. Rapid mixing apparatus and X-ray exposure capillary setup.

The BioLogic stopped flow module (SFM 400) (BioLogic, Claix, France) was modified in order to carry out time-resolved footprinting experiments on several consecutive samples. Each of the four syringes (S1-S4) of the SFM 400 is driven by independent stepping motors (M1-M4) whose function and speed are precisely controlled by a computer (BioKine32 software). All SFM 400 drive syringes, selection valves (SV) and flow lines are immersed into a water bath to provide an accurate temperature control. The rapid mixing device comprises the cross mixing chamber of our own construction. Check valves (CV) are inserted to eliminate the diffusion of reactants into the mixing area and effects due to backpressure buildup. An additional modification of the mixing device is the addition of an X ray transparent "exposure chamber" comprised of a quartz capillary within a plexiglass holder following the reaction loop in the solution flow path. This design of the stopped flow apparatus and the presence of the sample collector at the end of the machine allow the sequential mixing and exposure of up to 13 samples.