Recent experiments conducted at sub-seismic to seismic sliding velocities (mm/s to ms) show the
dramatic weakening in the friction coefficient for a wide variety of rock types due to mechanochemical
effects by frictional heating. Consequently, several weakening mechanisms have been proposed
depending on the type of rock specimens. Some of them are based on the sample observation and
analysis after experiments. Direct observation of frictional contacts during an experiment is indisputable
to constrain an elementary process at frictional contacts during slip. In this presentation, I'll talk about our
recent experiments for direct observation flash temperature at frictional contact during high-velocity
sliding

Keywords: High velocity friction, Flash heating, Visualization