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In Situ X-ray diffraction of Mo on a light gas gun MINTA AKIN, BRIAN MADDOX, NEIL HOLMES, Lawrence Livermore National Laboratory — We report on recent results using a newly developed x-ray diffraction system on a two stage light gas gun. Using slightly focusing polycapillary x-ray optics we are able to significantly reduce the background noise, improving diffraction lines, while keeping the x-ray source over 1 meter away and away from possible shrapnel sources. Using this system we obtained diffraction patterns for molybdenum and tin, and will discuss these results. This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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