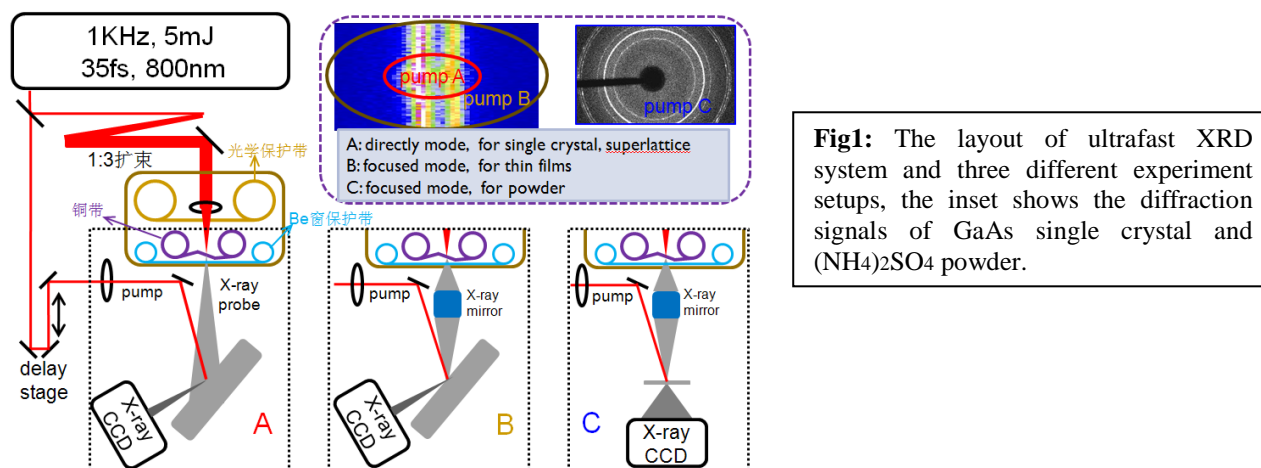


Development of Sub-picosecond Ultrafast X-ray Diffraction and Research of Ultrafast Photoinduced Strain

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Ultrafast X-ray diffraction based on laser-driven plasma fs X-ray source[1] has allowed for sub-picosecond laser pump- X-ray probe experiment.(Fig1)
The poster includes salient features of the laser system and X-ray source, as well as some characterized pump-probe experiments based on this instrumentation, including the research of ultrafast lattice dynamics of GaAs single crystal[2] and perovskite superlattices (SRO/STO)[3], which can strongly demonstrate the feasibility to develop sub-picosecond experiments on this system.



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