

Abstract for an Invited Paper
for the MAR10 Meeting of
The American Physical Society

RF Superconductivity – An Essential Technology for 4th Generation Light Sources

JEAN DELAYEN, Old Dominion University

The 4th generation light sources, which are expected to produce high brilliance photon beams, will require very low emittance electron beams. This will put stringent requirements and demands on the electron sources and on the accelerators needed to produce them. The characteristics of the superconducting rf (SRF) technology makes it ideally suited for such facilities, whether free electron lasers or energy recovering linacs. The opportunities offered by the SRF technology for 4th generation light sources, and its challenges, will be presented and reviewed.