

Further Design Progress on DIAMOND, the Proposed New UK National Light Source,
M.W. POOLE and V.P. SULLER, CLRC Daresbury Laboratory, Warrington, WA4 4AD, UK - During the last year the design concept of the 3 GeV storage ring DIAMOND, intended as a third generation replacement for the Daresbury SRS, has continued to evolve. A major change has taken place with the decision to adopt a DBA lattice structure combined with a racetrack geometry having two 20 m long superstraights included within the sixteen cells, with a circumference increased to 345 m. This new solution has an improved and optimised specification, including an emittance of 14 nm-rad, and has been subjected to an analysis of its error tolerance and correction. Outline designs of all technical systems have been undertaken and a fully costed feasibility study has been completed: this has allowed the plan to be submitted to the funding bodies for approval and a decision is now awaited.