

UHV Requirements for Accelerator and Synchrotron Radiation Source Engineering*

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Abstract

Basic design requirements for vacuum and ultra-high-vacuum systems in synchrotron radiation applications are presented. The most useful standard formulas that facilitate simple preliminary calculations for vacuum systems are included together with information on materials requirements, different types of vacuum joints, pumping and conductivity, cleaning etc. Other technologies suitable for high-vacuum installations are also described. Numerous design examples are included in this presentation to illustrate the basic concepts.

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