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국문 강연제목: 멀티빔 엑스레이선원 기반 흉부용 3D 토모신테시스 시스템 개발

영문 강연제목: Development of Chest 3D Tomosynthesis System Based on Multi
Beam X-ray Sources

Abstract

   This study investigates the feasibility of utilizing a multi-beam system, integrated with carbon nanotubes (CNTs), as field emission X-ray sources for next-generation medical imaging methods, such as tomosynthesis. Due to their capacity to endure high temperatures and inherent digital properties, CNTs are ideally suited for multi-beam systems. Incorporating CNTs into a multi-beam setup can lead to faster image acquisition, a decrease in radiation exposure to patients, and enhanced image quality. Overall, this research underscores the benefits of employing a multi-beam system with CNT-based X-ray sources for progressive imaging and therapeutic procedures.

Brief Biosketch

흉부용 3D 토모신테시스 방사선 사업 연구책임자 (2018~2022, 5 년간, 연구재단 지원)

경희대학교 의과대학 나노방사선진단기 연구단 (2016 ~ 현재)