

XERORADIOGRAPHY PROCESS DESCRIPTION AND MAXILLOFACIAL UTILITY

LIBRARY DISSERTATION

By

Dr. TATU JOY, E.

In partial fulfilment of the requirements for the degree of

MASTER OF DENTAL SURGERY

in the speciality of

Oral Medicine, Diagnosis & Radiology

INTRODUCTION

Presently, two xeroradiographic systems are commercially available. Xeroradiography is a process of recording X-rays with the use of xerographic principles, as developed in 1937 by Chester F. Carlson, a physicist.

Early for mammography and at times for cephalometric radiography. A second system (The dental xerography) has been designed for dental xeroradiography. Xerography which is made up from two Greek words 'xeros' and 'graphein' meaning 'dry' and 'to write' respectively, is based on the photoconductive properties of some semi-conductors such as vitreous selenium. This process has been used for document copying for many years but it was not until about 1965 that much progress was made towards its application in radiography. In addition, there are the added benefits of high resolution, high effective local contrast arising from the edge

Xeroradiography has many features that make it attractive, including positive and negative displays, good detail and wide exposure latitude. In addition, xeroradiography does not require silver halide containing films such as those commonly used for intraoral and extraoral radiographic procedures. Since xerography is a physical process, no wet chemical or associated washing and drying facilities are needed. All the operations on the plate must, however, be carried out in the dark, and for this purpose, an automatic equipment of two units, a conditioner and a processor is available. No conventional dark room is required.