



**“Gheorghe Asachi” Technical University of Iasi, Romania**



---

## **DENTAL RADIOLOGY FROM AN ECOLOGICAL PERSPECTIVE. THE ATTITUDE OF DENTISTS REGARDING THE MANAGEMENT OF THE MATERIALS USED IN DENTAL RADIOLOGY**

**Mariana Constantiniuc<sup>1</sup>, Daniela Popa<sup>1\*</sup>, Ana Ispas<sup>1\*</sup>, Cecilia Bacali<sup>1</sup>,  
Alexandru Burde<sup>1</sup>, Valeria Laza<sup>1</sup>, Graziella Turdean<sup>2</sup>**

<sup>1</sup>*“Iuliu Hațieganu” University of Medicine and Pharmacy, 8 Victor Babeș Street, 400000, Cluj-Napoca, Romania*

<sup>2</sup>*Babes-Bolyai University Cluj-Napoca, Romania, Faculty of Chemistry and Chemical Engineering,  
Department of Chemical Engineering, 1 Mihail Kogălniceanu Street, 400084, Cluj-Napoca, Romania*

---

### **Abstract**

The films and the developing solutions used with radiological films contain a number of harmful substances that are very toxic to the environment, as well as to the living organisms, particularly aquatic organisms. Therefore, this type of toxic waste requires simple, but adequate collection and treatment measures, in order to be transformed into environmentally friendly products. This paper reviews the existent knowledge and the methods for the management of this special waste in dentistry-related units of dental radiology in Cluj-Napoca and Cluj County. An analysis of the answers reveals that many dentists do not know enough or do not use appropriate methods in radiological waste management, which can result in environmental pollution.

*Key words:* dentistry, ecology, radiology, waste

*Received: April, 2019; Revised final: August, 2019; Accepted: November, 2019; Published in final edited form: May, 2020*

---

---

\* Author to whom all correspondence should be addressed: e-mail: [Popa.Daniela@umfcluj.ro](mailto:Popa.Daniela@umfcluj.ro); Phone: 0744349278; [ana24ispas@yahoo.com](mailto:ana24ispas@yahoo.com)