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Author: Graziella L. Turdean Ioana C. Fort Viorica Simon

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## ACCEPTED MANUSCRIPT

In vitro short-time stability of a bioactive glass-chitosan composite coating evaluated by using electrochemical methods

Graziella L. Turdean<sup>1,\*</sup>, Ioana C. Fort<sup>1,2</sup>, Viorica Simon<sup>3,4</sup>

<sup>1</sup>Chemical Engineering Department, "Babes-Bolyai" University, 11, Arany Janos St., Cluj-

Napoca, Romania

<sup>2</sup>Laboratory of Electrochemical Research and Nonconventional Materials, "Babes-Bolyai"

University, 11, Arany Janos St., Cluj-Napoca, Romania,

<sup>3</sup>Department of Biomolecular Physics, "Babes-Bolyai" University, 1, Mihail Kogalniceanu St.,

Cluj-Napoca, Romania

<sup>4</sup> Institute of Interdisciplinary Research in Bio-Nano-Sciences, "Babes-Bolyai" University, 42,

Treboniu Laurian St., Cluj-Napoca, Romania

\*Corresponding author, Email: gturdean@chem.ubbcluj.ro

# Graphical absort

Abstract

A composite coating consisting from a chitosan (Chit) thin film containing a new bioactive glass SiO<sub>2</sub>-CaO -P<sub>2</sub>O<sub>5</sub> (BG) was investigated by cyclic voltammetry. The bioactive glass-biopolymer

coating has certain porosity and is a good insulator comparing with the biopolymer film.

The in vitro short-time stability of Chit and BG-Chit coatings on glassy carbon (GC) electrode is

studied by cyclic voltammetry (CV) and electrochemical impedance spectroscopy (EIS), during

about 1 day of contact with a protein-free and acellular simulated body fluid (SBF) having an ion

concentration nearly equal to that of human blood plasma. The EIS data indicated that after 5

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