Brief biographical note

Prof. Alina Sionkowska is a polymer and biopolymer scientist who obtained her Ph.D. from Nicolaus Copernicus University, Torun, Poland. From 2008 she has been working as Professor at the Faculty of Chemistry, Nicolaus Copernicus University, Torun, Poland.
She spent several periods in laboratories abroad: Karolinska Institutet in Stockholm, Sweden; Faculty of Chemistry University of Camdridge, UK; Collagen Research Group University of Bristol, UK; Department of Chemistry and Industrial Chemistry University of Genova, Italy; Faculty of Biology and Biological Sciences University of of Stirling, Scotland, UK; School of Optometry and Vision Science University of Wales, Cardiff, UK; Laval University, Laboratory of Bioengineering and Biomaterials, Quebec City, Canada; Laboratoire de Physicochimie Moleculaire University of Bordeaux, France; Department of Biophysics Tbilisi State University, Georgia.

Her professional and scientific activity comprises: handbooks/textbooks (4); papers published in scientific journals (205); papers published in the proceedings of international or national conferences (300); participating in different international or national research projects (22); member of the scientific committee of different meetings (20); member of the organizing committee for different international conferences (4). H_{index} = 44,number of citations 7121 (acc. Google Scholar). She was the organizer of 3 International conferences Chemistry for Beauty and Health in 2017, 2018 and 2021.

Name , salutation:
Alina Sionkowska

Current appointment:
Departmant Biomaterials and Cosmetics Chemistry
Faculty of Chemistry,
Nicolaus Copernicus University in Torun, Poland

Educational Background:
1987 Master of Science in chemistry NCU
1997 PhD in chemistry
Speciality: Polymer chemistry NCU
2006 habilitatiion
Speciality: Polymer chemistry NCU
2012 full professor
2020 Member of the Committee of Biocybernetics and Biomedical Engineering of the Polish Academy of Sciences

Experience:

- Member of Polish Chemical Society
- Member of Polish Society for Biomaterials
- Head of Departmant of Biomaterials and Cosmetics Chemistry at Faculty of Chemistry NCU
- Head of the Laboratory of Biomaterials at Faculty of Chemistry NCU
- Head of Laboratory of Cosmetic Science at Faculty of Chemistry NCU

Research interest

- Extraction of collagen from several sources, collagen structure and properties
- Photodegradation of collagen, chitosan, elastin, silk, cellulose, keratin
- Photopolymerization of monomers for dental applications
- Kinetics of photopolymerization
- Miscibility of polymers and polymer blends
- New materials based on the blends of collagen and synthetic polymer
- New materials based on the blends of collagen and chitosan
- Crosslinking of natural and synthetic polymers
- New materials based on the blends of chitosan and silk
- Micro- and nanocomposites of collagen and hydroxyapatite
- Micro- and nanocomposites of chitosan and hydroxyapatite
- Biopolymeric films and sponges for biomedical applications
- Polymeric biomaterials
- Laser modification of polymer surface and laser ablation
- Modification of biopolymers for cosmetic application
- Changes of collagen structure in disc diseases
- Thermal stability of polymers and biopolymers
- Biomaterials, bioengineering, biocompatibility, biodegradation
- Flash photolysis of collagen and other biopolymers
- Pulse radiolysis of collagen and other biopolymers
- Cosmetic raw materials
- Formulation of cosmetics

Present Areas of Research

The ongoing research work is characterized by the following keywords: polymeric biomaterials, biopolymer/ceramic composites, scaffolds for medical applications, cosmetic raw materials, controlled release of drug and cosmetic ingredients from polymeric matrix, surface modification of polymers, biopolymers and their blends.

Main achievements

Prof. Alina Sionkowska is a scientist who overcame the nature limitation in designing of biomimetic materials for biomedical and cosmetic applications. She mixed together biopolymers which in normal condition do not exists together as a blend in nature. She showed that hydrogen bonds between collagen and chitosan can be useful in preparation of materials with potential applications such as artificial skin, arificial bones (after incorporation of inorganic particles) and as wound dressing materials. She prepared also materials based on the blends of three different

biopolymers and materials based on the blends of biopolymers and synthetic polymers prepared in the laboratory.

She showed that several biopolymers can be obtained from the waste of food production (keratin, elastin, collagen, glycosoaminoglycans) and after appropriate cross-linking process can be used in preparation of biomaterials and cosmetics. In such a way she showed that the waste stock can be reduced.

She always shows that chemistry is doing its best for beauty and health of human population. She established a course of cosmetic chemistry in Nicolaus Copernicus University in Torun and organize a new department: Department of Biomaterials and Cosmetics Chemistry.

Prof. Alina Sionkowska is a women in scince with citation number 7121. and H_{index} 44. She was working with several research groups not only in Poland. She used to teach young people how to work with collagen and other biopolymers. She has got a medal from National Education Committee in Poland for her activity in teaching of young scientists and students.

In private life she is married, she has two sons and three groundaughters.