

Dr Vukoman Jokanović, scientific adviser
Institute of Nuclear Sciences «Vinča»,

Personal and professional biography

Born 2 may 1949 in vilage Trsa, Tпча, commune Plužine in Montenegro.

Faculty of Physical Chemistry he finished 1972 in Belgrade, Serbia.

Master thesis he finised 1988. in Center of Multidisciplinary studies, Belgrade University, Serbia

From 1972 to 1989 in degree of Research collaborator, then Scientific collaborator and Higher scientific collaborator he has been worked at Metallurgical Institute in Zenica, Bosnia and Herzegovina.

From 1989. to 1991. he has been worked as University lecturer and Associate professor teaching subjects of Refractory materials and Powder Mettallurgy at Metallurgical and Mechanical Engineering Faculties in Zenica, Bosnia and Herzegovina.

From 1991 to 2000. in degree of Higher scientific fellow and Scientific fellow he has been worked at Institute for technology of nuclear and other row materials in Belgrade, Serbia

From 2000. to 2002 he has been worked in his own enterprise ALBOS, as founder and general manager, in Belgrade, Serbia.

From 2002 to 2005 he has been worked in Technical institute of Serbian Academy of Sciences and Arts , Belgrade, Serbia

From 2005 to today he has been worked in Institute of nuclear sciences Vinča in Belgrade, Serbia.

Between 1988 and 1992 he was nominated for UNIDO expert in the field of special alumina and ceramic fibers.

He is secretar of Department for metallurgy and chemistry of Serbian Engeenery Academy, president of Serbian society for nanotechnology and nanomedicine. He is member of Editorial board of Drug Design, International journal of oral and craniofacial science, International Journal of Recent Research in Arts and Sciences (IJRRAS), and Serbian dental journal. He is president of the Scienatific board of Regional round table for refractory, processing industry, nanotechnology and nanomedicine. He has participated into projects of excellance of the FP-& framework in the field of regenerative medecine and implanology.

He got the Annual award of Vinca institute for 2012, as the best resercher. He is included in the book of the best inovators in Serbia, for 2008 year..

He is author and coauthor about 120 papers published in international journals, most of them in high impact factor journals, and proceedings of international conferencies helded in different countries worldwide and 45 papers published in the leading national journals and in the proceedigs of conferencies of national importance.

He is the author of five monographs, including monographs: „Nanomedicine, the biggest challenge of the 21st century“ printed on 813 pages, monographs: "How cells live and die in us" printed on 508 pages and monograph: „Instrumental methods, the key to the understanding of nanotechnology and nanomedicine“, printed on 855 pages, are part of

exceptional value, in many ways unique and across national borders. He is the author of five chapters in international monographs published in the world's most respected publishing houses, and two chapters in national monographs of the Republic of Serbia and the Serbian Republic.

He is author and coauthor numerous technological solutions and technical innovations, especially in the field of refractory for application in the field of ferrous metallurgy, cement industry, thermo plants, with numerous among them solutions tested and applied as a commercial solutions in big industrial systems, as they are Železara Zenica, Sartid or USSteel, Kremnikovci in Bulgaria, Cement plant in Kakanj, Holcim in Novi Popovac, Thermo plants Pljevlja, Ugljevik and Gacko.

He is author of numerous innovations in the field of production of diamond tools by hot pressing, atomization of metal powders, numerous promising methods in production of nanostructured precisely phased determined nanomaterials and nanocomposites with diverse functional properties for production compacts of defined porosity in the field of biomaterials and regenerative medicine through combination various organic and inorganic nanolayered thin films, markers either fluorescent or paramagnetic properties as a bioactive multilayered thin films at surface of metal implants, films with specific kinetics of active substances-drugs release etc. .

His field of activity is also encapsulation of drugs, control its rate of release, specificity of activity for various kind of bacteria, its application in inflammatory conditions of surrounding tissues around of given bone implants its specific way of administration independently from the curing tissue, its exclusive contacts only with curing tissue, opportunity of universal application and methodology, isolation and packing into thinlayered polymer structures various polymers deposited on the surface of scaffold thin walls of stem cells various origin from various sources, encapsulation of antigens, growth factors, investigation of specific interaction of scaffolds and live cells etc.

These investigations are very attractive and compatible with high impact research laboratories and institutions in the country and abroad. Thanking to its recognizability and attractiveness, through very strong national network which include the most pronounced institutions in the field of physical, chemical, technological, biological and medical investigation, which are initiated, organized and coordinated by himself and network leading with him, he organize and coordinate numerous cooperations with similar scientific teams at various national, regional and European levels.

His field of activity include investigations of ceramic coatings on the surface of metal medical implants obtained by using high energy plasma jet method, thermal spray pyrolysis, anode oxidation, etching by ionic beams and biomimetic method, each of them alone or in combination as a special part of investigations related to metal implants.

Behind of investigations in the field of regenerative medicine he recently works in investigations of application of superparamagnetics, fullerenes and carbon nanotubes in cancer therapy and in the development of scintillation nanosecond modulus for cancer detection by using method of positron electron emission in PET camera and specific nanostructured markers for cancer detection by method nuclear magnetic resonance.

Special field of his activity is related to specific geometrical and structural design of the materials which can be used as energy storage materials. The model which shows how is possible to obtain in advance requested geometry and structure and which influence can have periodical physical fields in the process of creating such materials. This model gives

chance for essential progress in design and properties of energy storage materials and other important materials for renewable energy sources.