

# P R O G R A M M E

**MatCatNet Workshop**  
**“From Molecules to Functionalised Materials”**  
**Scientific module “Polymers”**  
5-10 September, 2014, Ohrid, Macedonia

## Friday, 5 September 2014

**09.00**                      **Registration**

**10.30**                      **Prof. Valentin Mirčeski**  
*Welcoming address*

**10.35**                      **Prof. Luminita Silaghi-Dumitrescu**  
*Overview of the project*

## Scientific module “Polymers”

*-Lectures-*

**11:00-12:00**              **Ass. Prof. Avni Berisha (Prishtina)**  
*Polymers – a basic introduction*

**12:00-13:00**              **Prof. Luminita Silaghi-Dumitrescu (Cluj-Napoca)**  
*Organometallics in polymer chemistry*

**13:00-14:30**              *Lunch*

**14:30-16:30**              **Prof. Valentin Mirčeski (Skopje)**  
*Electrochemical techniques for studying conducting polymers*

**16:30-16:45**              *Coffee Break*

**16:45-17:45**              **Prof. Rubin Gulaboski (Štip)**  
*Voltammetry of conducting polymers*

## Saturday, 6 September 2014

- 09:00-10:00**      **Prof. Fetah Podvorica (Prishtina)**  
*Electrografting of polymers onto material surfaces*
- 10:00-11:00**      **Prof. Blaga Radovanović (Niš), Ass. Prof. Marjan Randjelović (Niš)**  
*Investigation of rubber-filler interactions of nano- and micro-filled crosslinked polymer blends*
- 11:00-11:15**      *Coffee Break*
- 11:15-12:15**      **Assoc. Prof. Dragan Djordjević (Niš)**  
*Geopolymers*
- 12:15-13:15**      **Ass. Prof. Luljeta Raka (Tetovo)**  
*Synthesis, structure and properties of polypropylene/clay nanohybrids*
- 13:15-14:45**      *Lunch*
- 14:45-15:45**      **Prof. Gordana Bogoeva-Gaceva (Skopje, invited lecturer)**  
*Interface in polymer composite materials*
- 15:45-16:45**      **Ass. Prof. Vineta Srebrenkoska (Štip)**  
*Preparation and recycling of polymer eco-composites*
- 16:45-17:00**      *Coffee Break*
- 17:00-18:30**      **Assoc. Prof. Vladimir Ivanovski (Skopje)**  
*IR spectroscopy of polymers*
- 18:30-20:00**      *Sightseeing of Ohrid old city  
(walking tour I)*

## Sunday, 7 September 2014

- 09:00-10:00**      **Prof. Muriel Hissler (Rennes, invited lecturer)**  
 *$\pi$ -conjugated polymers for (opto)electronic devices*

# MatCatNet Workshop

*-Students' oral presentations-*

**(chair: Jeton Halili)**

- 11:00**      **Miha Bukleski**  
*(Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*  
*Quantification of the maximal chemisorbed 3-aminopropylsilyl groups on silica gel using DRIFT spectroscopy*
- 11:15**      **Mihaela Vasile**  
*(Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania)*  
*The evaluation of absorption of carbon dioxide in alkanolamines through dynamic modeling*
- 11:30**      **Egzon Ademi**  
*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*  
*Coupling of some six membered heterocycles with 4-hydroxycoumarin through the hydrazinylidene link*

**11:45-12:00** *Coffee Break*

**(chair: Vladimir Radovanovič)**

- 12:15**      **Jeton Halili**  
*(Faculty of Natural Science, University of Prishtina, Prishtina, Kosovo)*  
*Supercritical CO<sub>2</sub> extraction of heavy metals from aqueous solution by using chelate ligand - dithizone*
- 12:30**      **Adrian Brânzanic**  
*(Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania)*  
*Archaeometric studies on ancient oxidic materials from Romania*
- 12:45**      **Katerina Stankoska**  
*(Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*  
*Studying CE mechanism at three-phase electrode, where coupled electron-ion transfer is complicated by complexation of the transferring ion*

**13:00-14:00** *Lunch*

**(Chair: Sasho Stojkovikj)**

**14:00**      **Zulihaje Ismaili**

*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*

*High density-polyethylene for pharmaceutical industry: thermal characterization*

**14:15**      **Nikolina Mitreska**

*Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*

*Hydroxylated derivatives of coenzyme Q<sub>1</sub> as ligands for complexation of transition metals*

**14:30**      **Jeta Sela**

*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*

*Synthesis and characterization of Co(II) and Ni(II) complexes with schiff bases derived from salicylaldehyde*

**14:45**      **Dijana Jadreško**

*(Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*

*Characterization of electrode processes by cyclic square-wave voltammetry (CSWV)*

**15:00**      **Valdrin Januzaj**

*(Faculty of Natural Science, University of Prishtina, Prishtina, Kosovo)*

*Composite electrodes with carbon supported Ru-nanoparticles for H<sub>2</sub>O<sub>2</sub> detection*

**15:15-15:45** *Coffee Break*

**15:45-17.00** **Project coordinators meeting**

*Evaluation of the project and future perspectives of the network*

**17:00-19:00** *Sightseeing of Ohrid old city*

*(walking tour II)*

## **Monday, 8 September 2014**

**09:00-10:00**      **Prof. Muriel Hissler (Rennes, invited lecturer)**  
*Phosphole-based compounds for optoelectronic applications*

**-Students' oral presentations-**

**(Chair: Mihaela Vasile)**

**10:00**      **Njomza Buxhaku**  
*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*  
*Hydrothermal reaction of tripoli with calcium hydroxide*

**10:15**      **Biljana Balabanova**  
*(Faculty of Medical Science, "Goce Delčev" University, Štip, Macedonia)*  
*Characterization of macro and trace elements contents in edible oils with application of microwave digestion and ICP-MS*

**10:30**      **Sasho Stojkovikj**  
*(Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*  
*Development of nonenzymatic amperometric sensor for detection of hydrogen peroxide based on Manganese(II) carbonate thin films*

**10:45**      **Abibe Useini**  
*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*  
*Baylis-hillman reactions catalyzed by hexamethylenetetramine*

**11:00**      **Szóke Árpád Ferenc**  
*(Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania)*  
*The incubation of indigo carmine in sol-gel coatings*

**11:15-11:30** *Coffee Break*

**-Students' Poster Flash Presentations-**

**(Chair: Arianit Reka)**

- 11:30**      **Elena Drakalska**  
*(Faculty of Medical Science, "Goce Delčev" University, Štip, Macedonia)*  
*Preparation and characterization of polyoxythylated tert-butylcalix[4]arene nanoparticles as platforms for delivery of curcumin*
- 11:40**      **Ivana Vuchkovikj**  
*(Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*  
*Study of nitrogen pollution in Croatia by moss biomonitoring and Kjeldahl method*
- 11:50**      **Nikola Stojkovic**  
*(Faculty of Science and Mathematics, University of Niš, Niš, Serbia)*  
*Preparation and photocatalytic activity of templated mesoporous TiO<sub>2</sub> thin films with selected polymers*
- 12:00**      **Belinda Aliu**  
*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*  
*Synthesis of ferum complexes with 3-[2-(thiazol-2-yl)hydrazinylidene]chroman-2,4-dione*

**(Chair: Biljana Balabanova)**

- 12:10**      **Viktorija Maksimova**  
*(Faculty of Medical Science, "Goce Delčev" University, Štip, Macedonia)*  
*Electrochemical behavior of capsaicin and its anti-oxidative properties studied by means of cyclic voltammetry*
- 12:20**      **Milica Stankovic**  
*(Faculty of Science and Mathematics, University of Niš, Niš, Serbia)*  
*Cornelian cherry fruit and leaf extracts as potential drugs*
- 12:30**      **Luana Radu**  
*(Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania)*  
*Noncovalent interactions between hemoglobin and compounds with potential biological activity*
- 12:40**      **Marija Sterjova**

*(Faculty of Medical Science, "Goce Delčev" University, Štip, Macedonia)*  
*Evaluation radiochemical purity of <sup>177</sup>Lu-labelled rituximab conjugates using HPLC method*

**12:50**      **Dora Chisalita**  
*(Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania)*  
*Lower rim functionalized calix[8]arenes coupling to silica surface*

**13:00**      **Vladimir Radovanovic**  
*(Faculty of Science and Mathematics, University of Niš, Niš, Serbia)*  
*Optimization of ultrasonic extraction of polyphenols from grape waste using design expert software*

**13:10**      **Arianit Reka**  
*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*  
*Low temperature reaction of amorphous SiO<sub>2</sub> with calcium hydroxide*

**13:30-14:30** *Lunch*

**14:30-18:00** *Guided tour to the Monastery St. Naum and springs of Ohrid's Lake*

**20:00**      *Gala Dinner*

## **Tuesday, 9 September 2014**

**(Chair: Adrian Branzanic)**

**09:00**      **Liridona Useini**  
*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*  
*Synthesis of 4-aryl/alkylaminocoumarines by using microwave*

**09:10**      **Stefan Mihajlovic**  
*(Faculty of Science and Mathematics, University of Niš, Niš, Serbia)*  
*Effect of selective removal of grapevine leaves of cabernet sauvignon polyphenolic content*

**09:20**      **Tanja Dimitrova**  
*(Faculty of Natural Science and Mathematics, "Ss. Cyril and Methodius" University, Skopje, Macedonia)*

*Microwave-assisted organic synthesis of some N-alkyl substituted isatin 3-thiocarbohydrazones*

**09:30 Marija Atanasova**

*(Faculty of Medical Science, "Goce Delčev" University, Štip, Macedonia)*

*Determination of oxidative status in EDTA plasma of hemodialysis patients by peroxide assay*

**09:40 Milica Ristic**

*(Faculty of Science and Mathematics, University of Niš, Niš, Serbia)*

*Geochemical analysis of trace metals: Sokobanja limestone*

**09:50 Rudina Veliu**

*(Faculty of Natural and Mathematical Science, State University of Tetovo, Tetovo, Macedonia)*

*Baylis-hillman reactions catalyzed by hexamethylenetetramine*

**10:00 Vicentiu Taciuc**

*(Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania)*

*Mechanistic investigations of undesired prooxidant reactions in compounds and natural extracts with antioxidant activity*

**10:10 *General discussion on poster results***

**12:00-14:00 *Lunch***

**14:00 *Award Ceremony, Closing remarks***

**15:00 *Social event***

**Wednesday, 10 September 2014**

**09:00 *Departure***