

Equipment	Specification	Specialist/Operator	Contacts
<b><u>DEPARTMENT OF BIOMATERIAL RESEARCH</u></b>			
Pulsed-laser for PLP-SEC studies	max pulse-repetition rate 500 Hz, determination of propagation rate coefficients	Marek Stach	<a href="mailto:marek.stach@savba.sk">marek.stach@savba.sk</a>
Automated Titrator Mettler Toledo	determination of functional groups (OH, NCO and COOH numbers)	Andrea Duračková	<a href="mailto:andrea.durackova@savba.sk">andrea.durackova@savba.sk</a>
Electrografting	grafting of (meth)acrylates onto electro(semi)conductive surfaces at inert dry atmosphere	Marek Stach	<a href="mailto:marek.stach@savba.sk">marek.stach@savba.sk</a>
Size-exclusion chromatography	absolute molecular weights and their distributions for wide range of polymers	Marek Stach, Lucia Učňová	<a href="mailto:marek.stach@savba.sk">marek.stach@savba.sk</a> , <a href="mailto:lucia.ucnova@savba.sk">lucia.ucnova@savba.sk</a>
Differential Refractometer	accurately measures the precise specific refractive index increment value (dn/dc) required for any light scattering analysis or the determination of polymer parameters	Eva Hipká	<a href="mailto:eva.hipka@savba.sk">eva.hipka@savba.sk</a>
Dynamic and static laser light scattering	laser beam is focused in the sample causing the particles in the scattering volume to scatter light in all directions, in dynamic laser light scattering these scattered photons are counted, in static light scattering the intensity of this scattered light is measured, which is proportional to the molar mass and the concentration of the particles or polymers in solution	Marek Stach	<a href="mailto:marek.stach@savba.sk">marek.stach@savba.sk</a>
HPLC system	UV detection, isocratic pump, C18 column	Nadežda Petrenčíková	<a href="mailto:nadezda.petrencikova@savba.sk">nadezda.petrencikova@savba.sk</a>
FTIR spectrometer	ATR modules, photoacoustic chamber, heating chamber, NIR region	Angela Kleinová	<a href="mailto:angela.kleinova@savba.sk">angela.kleinova@savba.sk</a>
Vapour phase osmometer	Knauer, DE, molar masses up to 20 000 g/r	Marta Mitošinková	<a href="mailto:martami@centrum.sk">martami@centrum.sk</a>
Encapsulation setup		Gabriela Kolláriková	<a href="mailto:gabriela.kollarikova@savba.sk">gabriela.kollarikova@savba.sk</a>

Optical microscope	Microcapsule size and membrane thickness are estimated by using optical microscopy which consisted of optical microscope equipped with a colour CCD camera and with a software tailor-designed for microcapsule optical microscopy.	Gabriela Kolláriková	<a href="mailto:gabriela.kollarikova@savba.sk">gabriela.kollarikova@savba.sk</a>
Texture analyzer	Texture Analyzer TA-2Xi with software Texture Expert is used for determination of mechanical characteristics of hydrogel materials. This is an evaluation where a material is subjected to a controlled force from which a deformation curve of its response is generated.	Gabriela Kolláriková	<a href="mailto:gabriela.kollarikova@savba.sk">gabriela.kollarikova@savba.sk</a>
Carousel 12 Plus Standard System	synthesis station for solution phase chemistry and solid supported reagent based synthesis	Marek Stach	<a href="mailto:marek.stach@savba.sk">marek.stach@savba.sk</a>
High-speed camera	camera for demanding applications in industrial and medical imaging	Dušana Mocinecová	<a href="mailto:dusana.mocinecova@savba.sk">dusana.mocinecova@savba.sk</a>
Fluorescence microscope	used to study properties of organic or inorganic substances using the phenomena of fluorescence and phosphorescence	Gabriela Kolláriková	<a href="mailto:gabriela.kollarikova@savba.sk">gabriela.kollarikova@savba.sk</a>
Sterile facilities	Preparation of polymeric materials under sterility	Gabriela Kolláriková	<a href="mailto:gabriela.kollarikova@savba.sk">gabriela.kollarikova@savba.sk</a>
<b><u>DEPARTMENT OF COMPOSITE MATERIALS</u></b>			
XPS K-Alpha	chemical composition determination	Matej Mičušík	<a href="mailto:matej.micusik@savba.sk">matej.micusik@savba.sk</a>
DRS Novocontrol	dielectric properties of materials, electrical conductivity, large temperature region	Zdeno Špitalský	<a href="mailto:zdeno.spitalsky@savba.sk">zdeno.spitalsky@savba.sk</a>
DMA Q800 TA Instruments	dynamic mechanical properties	Daniela Johec-Mošková	<a href="mailto:daniela.moskova@savba.sk">daniela.moskova@savba.sk</a>
Rheometer AR2000 TA Instruments	rheology of liquids and melts	Daniela Johec-Mošková	<a href="mailto:daniela.moskova@savba.sk">daniela.moskova@savba.sk</a>
Tensiometer K100 Kruss	free energy of solids and liquids	Daniela Johec-Mošková	<a href="mailto:daniela.moskova@savba.sk">daniela.moskova@savba.sk</a>
Nanoindenter Hysitron TI-750	complex mechanical behaviour of solid surfaces	Marian Valentin	<a href="mailto:marian.valentin@savba.sk">marian.valentin@savba.sk</a>
Microcompounder DSM	preparation composites and blends in molten state	Kludia Czaníková	<a href="mailto:kludia.czankova@savba.sk">kludia.czankova@savba.sk</a>
Plasma generators	plasma treatment of foild, textiles and powders	Igor Novák	<a href="mailto:igor.novak@savba.sk">igor.novak@savba.sk</a>

<b>Brabender Plasticorder</b>	preparation of composites and blends in molten state	Zuzana Nógellová	<a href="mailto:zuzana.nogellova@savba.sk">zuzana.nogellova@savba.sk</a>
<b>Surface Energy Evaluation System</b>	contact angles measurement	Anton Popelka	<a href="mailto:anton.popelka@savba.sk">anton.popelka@savba.sk</a>
<b>Universal testing machine Instron</b>	mechanical properties in tensile, shear and bending mode	Zuzana Nógellová	<a href="mailto:zuzana.nogellova@savba.sk">zuzana.nogellova@savba.sk</a>
<b>Universal testing machine Shimadzu</b>	mechanical properties in tensile, shear and bending mode, large temperature reagon	Zuzana Nógellová	<a href="mailto:zuzana.nogellova@savba.sk">zuzana.nogellova@savba.sk</a>
<b>Isomet</b>	thermal conductivity of composites	Igor krupa	<a href="mailto:igor.krupa@savba.sk">igor.krupa@savba.sk</a>
<b>Calander Nishimura</b>	mixing of rubbers and compositions based on rubbers with different additives	Ondrej Žigo	<a href="mailto:ondrej.zigo@savba.sk">ondrej.zigo@savba.sk</a>
<b>Hydraulic press Fontijne SRA-100 and Fontijne TP 50</b>	molding of polymeric materials into sheets or strips	Zuzana Nógellová	<a href="mailto:zuzana.nogellova@savba.sk">zuzana.nogellova@savba.sk</a>
<b>DEPARTMENT OF SYNTESIS AND CHARACTERIZATION OF POLYMERS</b>			
<b>Liquid Chormatograph</b> GPC mode HPLC - critical, limiting condition	evaporating, RI, fluorescence detectors	Dusan Berek	<a href="mailto:upoldber@savba.sk">upoldber@savba.sk</a>
<b>UV-Vis</b> Shimadzu UV-1650PC		Martin Danko	<a href="mailto:upoldan@savba.sk">upoldan@savba.sk</a> ; <a href="http://www.polymer.sav.sk/en/dpcp/equipments.html">http://www.polymer.sav.sk/en/dpcp/equipments.html</a>
<b>Fluorescence spectroscopy</b> Shimadzu RF-5301 PC spectrofluorophotometer	standard steady state fluorimeter; solid sample holder; thermostated sample holder for 1x1 cm cuvette	Martin Danko	<a href="mailto:upoldan@savba.sk">upoldan@savba.sk</a> ; <a href="http://www.polymer.sav.sk/en/dpcp/equipments.html">http://www.polymer.sav.sk/en/dpcp/equipments.html</a>
Becker&Hickl TCSPC modular equipment	Ultra-fast TCSPC module with multi-wavelength detection - 16 simultaneously recording wavelength channels for spectral resolution, Spectral range 300-850 nm, resolution 180 ps; Pulsed diode laser - wavelength 375 nm, Pulse width down to 60 ps, repetition rate 20-50-80 MHz; Different type of samples – liquid, transparent, non-transparent films (excitation angle 25-90°)		
Ocean Optics QE 65000	Multipurpose highly sensitive optical light detector in range of 200-1200 nm with optic fibre input. Laser diode excitation source 405 nm equipped by optical fibre output.		

<b>FTIR spectroscopy</b>	NICOLET 400	transparent liquid samples and solid films	Stefan Chmela	<a href="mailto:upolchme@savba.sk">upolchme@savba.sk</a>
<b>Raman spectroscopy</b> iRaman Plus		Raman portable spectrometer with 532 nm excitation laser (min 50mW) and 3.5 cm-1 resolution equipped with microscope	Jaroslav Mosnacek	<a href="mailto:upolmosj@savba.sk">upolmosj@savba.sk</a> ; <a href="http://www.polymer.sav.sk/en/dpcp/equipments.html">http://www.polymer.sav.sk/en/dpcp/equipments.html</a>
<b>Gas chromatography</b> FOCUS gas chromatograph		gas chromatograph equipped with FID detector for analysis of organic compounds up to temperature 350°C	Jaroslav Mosnacek	<a href="mailto:upolmosj@savba.sk">upolmosj@savba.sk</a> ; <a href="http://www.polymer.sav.sk/en/dpcp/equipments.html">http://www.polymer.sav.sk/en/dpcp/equipments.html</a>
<b>Thermal stability and flammability</b> 3	LUMIPOL	Determination of chemiluminescence - a light emission during various, mostly oxidation, reactions. Study of oxidation extent and thermal decomposition and stability of polymers and other non volatile compounds.	Jozef Rychly	<a href="mailto:upoljory@savba.sk">upoljory@savba.sk</a> ; <a href="http://www.polymer.sav.sk/en/dpcp/equipments.html">http://www.polymer.sav.sk/en/dpcp/equipments.html</a>
<b>Cone calorimeter</b>		Modern device used to study the fire behavior of small samples of various materials in condensed phase.	Jozef Rychly	<a href="mailto:upoljory@savba.sk">upoljory@savba.sk</a> ; <a href="http://www.polymer.sav.sk/en/dpcp/equipments.html">http://www.polymer.sav.sk/en/dpcp/equipments.html</a>
<b>Zetasizer Nano ZS - Dynamic Light Scattering</b>		It is used for the measurement of the size, electrophoretic mobility of proteins, size and zeta potential of colloids and nanoparticles.	Jozef Kollár	<a href="mailto:Jozef.Kollar@savba.sk">Jozef.Kollar@savba.sk</a>
<b>Sigma 3-30K Refrigerated Centrifuge</b>		High speed refrigerated bench top centrifuge for maximum speed 30000 rpm, gravitational fields more than 65000 x g	Jozef Kollár	<a href="mailto:Jozef.Kollar@savba.sk">Jozef.Kollar@savba.sk</a>
<b>DEPARTMENT OF MOLECULAR SIMULATIONS OF POLYMERS</b>				
<b>High performance Linux cluster computer</b>		cluster of servers, 150 CPU units	Peter Palenčár, PhD	<a href="mailto:peter.palencar@savba.sk">peter.palencar@savba.sk</a>