

# SEMINAR: Chemical Analysis of Polymeric Materials Using Infrared Spectroscopy

Monday, 24 October 2011

Within the European project FP7-REGPOT-2008-1-229801:

"Unlocking the Croatian Textile Potentials" (T-Pot)

and organised by

Textile Science Research Center (TSRC)

Prof. C. Q. Yang

from The University of Georgia,

will hold a lecture entitled:

"Chemical Analysis of Polymeric Materials Using Infrared Spectroscopy"

Lecture will be held on November 2nd, 2011 at 10AM at the Faculty of Textile Technology, lecture hall 301 (third floor), Prilaz baruna Filipovi a 28a, Zagreb.

Second part will be the practical workshop organized at the premises of Textile Science Research Centre at Savska 16/9. Prof. Yang will be available for the questions/answers dealing with spectroscopy, thermogravimetric analysis or combustion calorimetry. FT-IR, TGA, DSC and MCC devices are available for the measurements during the workshop.

Workshop is open for all interested scientists/engineers, both from the academic and industrial sectors. For organisational reasons, we would kindly ask you to confirm your attendance with filling the Application form for one or both parts of the workshop and its submission at the following e-mail address: [zorana.kovacevic@tff.hr](mailto:zorana.kovacevic@tff.hr)

Materials for download:

1. Application form
2. Invitation flyer
3. Prof. C.Q. Yang curriculum vitae

By clicking on "Read more..." you will find Lecture outline for this seminar and a complete report (doc) of the seminar was held, and the lecture presentation (pdf) from Professor C. Q. Yang.

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SEMINAR: Chemical Analysis of Polymeric Materials Using Infrared Spectroscopy

Lecture outline:

Part I. Basic Theory of Infrared Spectroscopy

A. Molecular vibrational energy, infrared spectroscopy and its selection rules

B. The Interpretation of Infrared spectra: group frequency and peak assignment

C. Dispersive versus Fourier transform infrared spectroscopy

D. The sampling techniques for solid samples

Part II. Applications of FT-IR spectroscopy to polymers: qualitative analysis

A. FT-IR qualitative analysis applied to textile finishing

B. FT-IR qualitative analysis applied to textile Polymers

Part III. Applications of FT-IR spectroscopy to polymer: quantitative analysis

A. Beer's law and quantitative analysis

B. FT-IR quantitative analysis applied to textile finishing

After the seminar we are able to present and offer to download complete report(doc) of the seminar was held, and the lecture presentation(pdf) from Professor C. Q. Yang :

1. Lecture presentation (pdf, 4Mb)

2. Report seminar prof.Yang (doc, 12 Mb)