

RESUME

GENNADI G. NOSSAREV

PERSONAL: Contact: westsidewater@hotmail.com
Place of birth: Stavropolsky region, Russia.

PURPOSE: research/development position in a major chemical or high-tech materials company.

RESEARCH INTERESTS: synthetic polymer chemistry, anionic polymerizations, photochemistry, light-harvesting modeling, light-emitting polymers (polymer based OLEDs) and materials.

EDUCATION: 1997-2001
Chemistry Department. University of Southern California (USC), Los-Angeles, USA.
Area of specialization: Synthetic Polymer Chemistry. Ph.D degree.
1994-1996
Mendeleev University for Chemical Technology of Russia, Chemical Engineering Department. The Graduate School. Qualification: Engineer-Chemist-Researcher.
1988-1994
Mendeleev University for Chemical Technology of Russia, Chemical Engineering Department. GPA 4.0. Honor Diploma. Qualification: BS in Chem.Eng.; Engineer-Chemist-Technologist in the area of Membrane Processes: semi-permeable membrane synthesis and manufacturing, reverse osmosis, ultrafiltration, membrane distillation, ion exchange resins, water purification methods.

EMPLOYMENT: 1992-1994
Moscow's Plant for Bacterial Preparations (part-time). Position: Engineer-consultant on systems of preparation of high-purity water for drug solutions (18 MOm water).
Qualitative and Quantitative water analysis. Personnel Training.

PROFESSIONAL EXPERIMENTAL TECHNIQUES AND ACHIEVEMENTS:

- Anionic Polymerizations of broad number of vinyl compounds
- Radical Polymerizations and Step Polymerizations (polycondensation)
- Synthesis of structurally challenging macromolecules: cyclic, linear polymers and block-copolymers containing groups of interest at the desired position inside of the polymer chains
- Quantitative incorporation of anthracene labels within linear and cyclic polystyrene, poly(2-vinylnaphthalene) and poly(9,9-dimethyl-2-vinylfluorene)
- High-Vacuum Line Techniques (assembly, maintenance, manipulations, repair)
- Glass-Blowing Techniques
- Organic Synthesis (involving carbanions, functional group transformations, reductions)
- Nuclear Magnetic Resonance (proton, deuterium, carbon)
- Gas Chromatography and Mass Spectroscopy
- Thin Layer and Liquid (column) Chromatography
- Size Exclusion Chromatography (SEC/GPC): assembly, maintenance, troubleshooting
- Laser Light Scattering Photometry
- Absorbtion (UV- Vis) and Emission (Fluorescence) Spectroscopy
- FT-IR (Infrared Spectroscopy)
- Thermal Gravimetric Analysis (TGA)
- Differential Scanning Calorimetry (DSC)
- Polymer thin film deposition by Spin-coating
- Polymer thin film analysis by Ellipsometry and Optical Microscopy
- Fabrication and characterization of polymer based OLEDs

ADDITIONAL EXPERIENCE:

Teaching assistant for General Chemistry (2 semesters, 1997-1998) and Organic Chemistry (2 semesters, 1998) at USC, Chemistry Department.

PROFESSIONAL AFFILIATIONS: American Chemical Society since 1998.

PRESENTATIONS:

Various posters and talks at departmental professional meetings at USC.
Poster presented at the 219th ACS National Meeting, San-Francisco (March 2000).
Three posters presented at the 221st ACS National Meeting, San-Diego (April 2001).

PUBLICATIONS:

- 1) Nossarev, G.G.; Hogen-Esch, T.E. Synthesis and Thermal Properties of Macrocyclic Poly(2-vinylnaphthalene) Containing Single 1,4-Benzylidene or 9,10-Anthracenylidene Groups. *Macromolecules*. **2002**, *35*(5), 1604.
- 2) Tillman, E.S.; Nossarev, G.G.; Hogen-Esch, T.E. Reactions of Polystyryllithiums and Model Lithium Carbanions with Halomethyl Anthracene Derivatives. *Journal of Polymer Science, Part A: Polymer Chemistry*. **2001**, *39*(18), 3121.
- 3) Nossarev, G.G.; Hogen-Esch, T.E. Potassium Ion Mediated Living and Controlled Anionic Polymerization of 2-Vinylnaphthalene (2VN). Synthesis of P2VN-*b*-poly(α -methylstyrene) and P2VN-*b*-poly(9,9-dimethyl-2-vinylfluorene) Block Copolymers. *Macromolecules*. **2001**, *34*(20), 6866.
- 4) Nossarev, G.G.; Hogen-Esch, T.E. Living tert-Butyllithium Initiated Anionic Polymerization of 2-Vinylnaphthalene in Toluene-Tetrahydrofuran Mixtures. *Journal of Polymer Science, Part A: Polymer Chemistry*. **2001**, *39* (17), 3034.
- 5) Nossarev, G.G.; Hogen-Esch, T.E. Living Anionic Polymerization of 2-Vinylnaphthalene in THF in the Presence of Lithium Ion. Role of Monomer Purification. *Macromolecules*. **2001**, *34* (16), 5373.
- 6) Nossarev, G.G.; Hogen-Esch, T.E. Synthesis and Characterization of Macrocyclic Poly(2-vinylnaphthalene). *Polymer Preprints (Am.Chem.Soc., Polymer Div.)* **2001**, *42*(1), 590.
- 7) Nossarev, G.G.; Hogen-Esch, T.E. Li-ion Mediated Anionic Polymerization of 2-Vinylnaphthalene in Toluene/THF. *Polymer Preprints (Am.Chem.Soc., Polymer Div.)* **2001**, *42*(1), 483.
- 8) Nossarev, G.G.; Hogen-Esch, T.E. Living Anionic Polymerization of 2-Vinylnaphthalene in the Presence of Potassium Ion. *Polymer Preprints (Am.Chem.Soc., Polymer Div.)* **2001**, *42*(1), 516.
- 9) Nossarev, G.G.; Hogen-Esch, T.E. Anionic Polymerization of 2-Vinylnaphthalene. *Polymer Preprints (Am.Chem.Soc., Polymer Div.)* **2000**, *41*(1), 135.

AWARDS EARNED: The Harold E.Moulton Graduate Fellowship for summer 1999 and 2000. USC.
The 2000 Graduate Research Award in Chemistry (April 2000).
The Excellence in Teaching Award (April 1999).

LANGUAGES:

English: fluently.
Russian: fluently, native language.
German: satisfactory, translations with a dictionary.

COMPUTER:

Programming Languages: Fortran, Basic.
User Software: Windows 2000, ME, 98, 95, 3.1, DOS; MS Office, Adobe Photoshop, Adobe Acrobat, CorelDraw, ChemDraw,
Professional NMR, SEC (GPC), TGA, GC-MS software.
Web design and Internet navigation: HTML language, Netscape, WS_FTP95, etc.

REFERENCES: Upon request.