Additions and Corrections

Ultrafast Internal Conversion of Electronically Excited RNA and DNA Nucleosides in Water [*J. Am. Chem. Soc.* **2000**, *122*, 9348−9349]. JEAN-MARC L. PECOURT, JORGE PEON, AND BERN KOHLER*

Page 9349: The lifetimes for cytidine and thymidine should be switched in Table 1. The values printed in the Supporting Information figure caption are correct.

JA016042K

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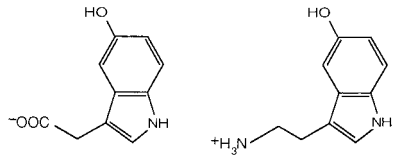
Electrophoretic Characterization of Dynamic Biochemical Microenvironments [*J. Am. Chem. Soc.* **2001**, *123*, 1790−1791]. MARY JANE GORDON AND JASON B. SHEAR*

Page 1791: The structures for 5-hydroxyindole-3-acetic acid (5HIAA) and 5-hydroxytryptamine (5HT) in Figure 2B are incorrectly drawn as 6-substituted hydroxyindoles. The actual structures of the 5-hydroxyindoles are



5HIAA **5HT**

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Book Reviews

New Developments in Polymer Analytics II. Advances in Polymer Science. Volume 151. Edited by Manfred Schmidt (University of Mainz). Springer-Verlag: Berlin, Heidelberg. 2000. xii + 190 pp. $135.00. ISBN 3-540-66078-X.

This volume contains two contributions: a chapter on the new technique of thermal-diffusion forced Rayleigh scattering (TDFRS), by W. Koehler and R. Schaefer, and a review of the area of scanning force microscopy (SFM), by S. S. Sheiko.

The first chapter begins with a clear presentation of the principles of thermal and mass diffusion in polymer solutions. The TDFRS method is based on Bragg diffracton of temperature and concentration gratings optically written in a polymer solution. TDFRS can be used to determine diffusion coefficients, molar mass distributions, and molar mass averages of the solutes in subseconds, therefore avoiding the perturbation of convection. Furthermore, TDFRS is shown to be capable of measuring the linear response function for pseudostochastic noise-like excitation patterns by means of Fourier transform. By utilizing tailored pseudostochastic binary sequences for signal processing, selective excitation of certain frequency ranges of interest in TDFRS becomes possible. The appeal of the technique is the capability of determining different averages of the solution Brownian diffusion coefficient of polymers with broad molar mass distributions. This makes TDFRS, in principle, superior to photon correlation spectroscopy for polydisperse polymer samples, even though the analysis of very broad molar mass distributions is still problematic. The content of the chapter is comprehensive, and the list of the references is adequate. While the discussion on the optical wavelength used for readout with respect to Rayleigh scattering, diffraction efficiency, and signal-to-noise ratio is not deep, the chapter is a valuable reference for researchers and graduate students in the field of advanced polymer science.

The chapter by S. S. Sheiko shows nicely that SFM has emerged within the last couple of years from an exclusive imaging tool to a powerful technique for the study of interfacial properties and for manipulation of nanoscale objects. It provides a clear introduction into general principles of the technique and covers recent SFM applications in the area of polymer science with special focus on nanotechnology and characterization of single macromolecules. The author also outlines the current knowledge in intermittent (tapping) and noncontact imaging, which are both very useful for the imaging of soft materials that are important in polymer and biological sciences.

Pu Chun Ke, Christoph Naumann, and Paul Dubin,
Indiana University−Purdue University, Indianapolis

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