

New Books

J. F. Gerecht, Book Review Editor

Surface and Colloid Science, Vol. 5, Edited by Egon Matijevic (Wiley-Interscience Publishers, 1972, viii + 331 p., \$22.50).

The fifth volume of this invaluable series, edited by Egon Matijevic, contains four chapters by three authors. These consist of two chapters (77 and 115 p., respectively) on surface rheology by M. Joly of the Institut Pasteur; a chapter on the physical chemistry of detergency (50 p.) by Anthony M. Schwartz, of the Gillette Co. Research Institute; and one by D. Tabor, University of Cambridge, on friction, lubrication and wear (68 p.).

Joly's first chapter is devoted to the basic concepts of surface rheology and an examination of the experimental methods available for the study of this property. The author erects a mathematical structure in which surface rheology is considered as a two dimensional analog of the three dimensional case. This is accomplished with truly remarkable thoroughness. However the use of tensor notation, with all its conciseness, will create an intellectual hazard for many readers. To be sure Joly does summarize the properties and significance of tensors, but it is doubtful that four pages, however clear, will suffice for the neophyte.

The second part of this first chapter describes the various techniques that have been used for the measurement of surface rheological properties and carefully subjects them to mathematical analysis. This permits an understanding of the advantages and deficiencies of the various methods. Although I may be reading more into this section than the author intended, I am left with the feeling that the deficiencies outweigh the advantages.

Professor Joly's second chapter begins with an extensive review of the quantitative data in the literature, reporting, where available, the compressional modulus, shear and dilational viscosity and the viscoelastic proper-

• Brazilian soybean crop. . .

(Continued from page 486A)

Department of Agriculture has a campaign, "3 milhoes toneladas para 73." There are posters everywhere and agronomists of the department are actually behind this program. Most people outside of the state, however, doubt that there will be a 50% increase in 1973.

[Received October 20, 1972]

ties of large numbers of materials. The second half of this chapter turns to the theoretical interpretation of these results in terms of molecular structure, orientation and interaction.

Unfortunately, through no fault of the author, this section is somewhat uneven, simply because of the imperfections of theory or data, or both. Thus the section that would be of most interest to JAOCS readers, "The Stability of Emulsions, Bubbles and Foams," is extremely inconclusive. For example, it has been impossible to demonstrate unequivocally that surface (interfacial viscosity) has any effect whatever on the stability of emulsions, and, although the surface viscosity has been related to the stability of single lamellae (via the film drainage transition temperature), it has yet to be demonstrated that this has any major significance for the stability of bulk foams.

Although this review appears in 1972, there are few references later than 1965 and none later than 1967. As a result, the valuable experimental studies of Mannheimer (save for a reference to a paper delivered at a 1965 American Chemical Society Meeting) and the theoretical analyses of Goodrich are not included.

It would be hard to imagine a more suitable choice for a review of the physical chemistry of detergency than Tony Schwartz, and his chapter is not disappointing. It contains a careful definition of detergency, a discussion of model systems for the study of detergency, a review of the mechanism of soil removal, the dynamics and kinetics of soil removal and a brief review of recent studies of detergency.

One complaint about this contribution is that the discussion is almost wholly qualitative. Thus, although numerous surface-chemical relationships are introduced, they are used only to indicate trends. This, indeed, may accurately reflect the state of the art, and this chapter should then serve as an incentive to further investigation.

The final contribution is by another acknowledged authority, D. Tabor of the Surface Physics Department, Cavendish Laboratory. It serves as a most satisfactory introduction to the subject of friction, lubrication and wear. With this as background, it should be possible to dig deeper into this most important area of surface science, in which the properties of surface active agents play no small part.

(Continued on page 503A)



SD 3000 SYSTEM

QUANTITATIVE TLC

Typical Quantitations:

- Aliphatic Lipids
- Alkaloids
- Amino Acids
- Amniotic Fluid Estriol
- Amphetamines
- Analgesics
- Antihistamines
- Antipyretics
- Antirheumatics
- Bacteriostatics/Bacteriocidals
- Barbiturates
- Bile Acids
- Blood/Urine Cortisol
- Carbohydrates
- Cholesterol
- Estriol in pregnancy urine
- Insecticides
- Malto-saccharides
- Mandelic Acid & Derivatives
- Phenols
- Phospholipids
- Polymers
- Porphyrins
- Pyrethins
- Sulfa-type Drugs
- Testosterone in urine
- Urinary Catecholamines
- Urinary Purines
- Urine-17 Ketosteroids

Complete data on request. SCHOEFFEL INSTRUMENT CORP. 24 Booker St., Westwood, N. J. 07675, (201) 664-7263, Telex 134356. In Europe: Schoeffel Instrument GmbH, 2351 Trappenkamp, Celsiusstrasse 5, W. Germany (04323) 2021, Telex 299660.

SCHOEFFEL
INSTRUMENT CORPORATION



Meetings

AOCS National Meetings

- April 29– May 3, 1973–New Orleans, La., Jung Hotel.
 Sept. 16–19, 1973– Chicago, Ill., Pick Congress Hotel.
 April 28–May 1, 1974– Mexico City, Mexico, Maria Isabel
 Sheraton Hotel, Aristos Downtowner.
 Sept. 29–Oct. 2, 1974– Philadelphia, Pa., Sheraton Hotel.
 April 27–30, 1975–Dallas, Tex., Statler Hilton

AOCS Conference

- June 17–21, 1973– Analysis of Lipids and Lipoproteins,
 Ramada Inn, Champaign, Ill. Contact: James Lyon,
 Executive Director, 508 S. Sixth, Champaign, Ill.
 61820.

Other Organizations

- March 5–9, 1973–24th Pittsburgh Conference
 on Analytical Chemistry and Applied Spectroscopy,
 Cleveland Convention Center, Cleveland, Ohio. Contact: H.L. Retcofsky,
 Program Chairman, 1973 Pittsburgh Conference,
 U.S. Bureau of Mines, 4800 Forbes Ave., Pittsburgh,
 Pa. 15213.
 Mar. 15–16, 1973–Third Technical Conference
 on Estuaries of the Pacific Northwest, Oregon State
 University. Contact: Larry S. Slotta, Director, Ocean
 Engineering Programs, Department of Civil Engineering,
 Oregon State University, Corvallis, Ore. 97331.
 May 10–13, 1973–Symposium on Shampoos and Foam
 Bath Products, German Society for Cosmetology,
 Kurhotel, Bad Pyrmont, West Germany. Contact: G.A.
 Nowak, D-345 Holzminden, West Germany, Dr. Lehmann-
 Weg 12.
 June 10–13, 1973–33rd Annual Meeting of the
 Institute of Food Technologists, Miami Beach
 Convention Hall, Miami Beach, Fla. Contact: E.H.
 Hoffman, IFT, Suite 2120, 221 N. La Salle, Chicago,
 Ill. 60601.
 June 20–27, 1973–Alchemia '73 and the European
 Meeting of Chemical Engineering, Frankfurt/Main,
 Germany.
 July 2–6, 1973–Second Congress of the Association
 Internationale de la Couleur, University of York,
 England.
 September 10–13, 1973–International Microwave
 Power Institute Eighth Annual Microwave Power
 Symposium, Loughborough University of Technology,
 Contact: (Americas and Asia) R.A. Peterson, Raytheon
 Co., Microwave and Power Tube Division, Foundry
 Ave., Waltham, Mass. 02154; (Europe) R.B. Smith,
 School of Electrical and Electronic Engineering,
 University of Bradford, Bradford 7, Yorkshire, U.K.

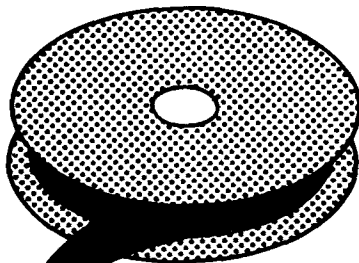
- October 24–25, 1973–Symposium on Environmental
 Chemistry: Know-How and Chemicals in 1973-78,
 Brussels, Belgium. Contact: i.b./c.c. Administration,
 Nieuwelaan 65, B-1820 Strombeek, Belgium.
 Oct. 25–28, 1973–Third International Symposium on
 Atherosclerosis, Kongresshalle, West Berlin,
 Germany. Contact: Kongressgesellschaft für ärztliche
 Fortbildung e.V., 1 Berlin 41, Wrangelstrasse 11-12,
 Germany.
 Oct. 29–November 2, 1973–Fourth International
 Conference on Atomic Spectroscopy, Toronto,
 Ontario, Canada.
 December 10–12, 1973–Second Joint Conference
 on Sensing of Environmental Pollutants, Sheraton-
 Park Hotel, Washington, D.C. Contact: Philip N.
 Meade, Instrument Society of America, 400 Stan-
 wix St., Pittsburgh, Pa. 15222. ■

• New Books. . .

(Continued from page 501A)

The book is well produced, with no obvious typographical errors, except for the unfortunate misspelling of the names of several authors in the bibliographies. It, like the other volumes of this series, can be recommended to all working in the field of colloid and surface science.

PAUL BECHER
 ICI America Inc.
 Wilmington, Delaware 19899 ■



**Greatest Advance Since the
 Typewriter was Invented!
 No More Smearly Erasing—
 Covers Mistakes Instantly,
 Permanently!**

SELF-CORRECTING TYPEWRITER RIBBON!

Most exciting, needed advance since the typewriter was invented! As of this moment, every messy, smudgy, smearly typewriter eraser in the world hits the scrap heap for good. No more erasing—ever! Bottom half of miracle ribbon is like a magic wand that makes errors disappear before your eyes. To make corrections, just back space, shift ribbon selector and retype error. Presto! White ink makes error completely invisible. Order extra ribbons for friends. This is one gift they'll love you for! No CODs.

MAIL ORDER MART, Dept. 14
 2701 Sterlington Road, Suite 132
 Monroe, Louisiana 71201

Please send me the quantity of ribbons checked below. If not satisfied, I will return ribbons within 10 days for full refund.

1 ribbon \$3.50 2 ribbons \$6.00

Brand Name of Typewriter _____
 Standard Electric Portable
 Name _____
 Address _____
 City _____ State _____ Zip _____