

respective chapters, discuss and elaborate on new and significant contributions to their areas, using concise, easy-to-read language devoid of all but the most essential jargon. The references are as recent as any monograph can possibly be and are carefully chosen to illustrate the important generalities and pertinent specifics of the topic. The English is clear and understandable despite its second-language status for the majority of contributors. It is an easy read even for non-experts, despite the technical nature of the subject and the significant, informative content.

The text contains over 550 reference citations, some as recent as March 1994, and contains more than 250 tables and drawings. The C_xF and MF_x GIC's are authoritatively discussed: synthesis, structure, bonding, and physicochemical, and thermodynamic properties. A very comprehensive chapter on C_xF physical properties—including electrical, electronic, magnetic, thermal, and optical properties—is probably the best-written entry of this area for chemists and material scientists. The chapter on fluorinated fuller-

enes, though short, is comprehensive and up-to-date in this fast-moving, new area. The electrochemistry of C_xF GIC's and their battery applications are discussed, as is the tribology (lubricating properties) of CF_x and $(C_2F)_x$. The chapter on carbon and modified-carbon anodes for elemental fluorine production is unique in its presentation and discussion of an area which until now was highly fragmented, shrouded in industrial secrecy or presented in such generalizations as to be informationally useless to those outside this interesting but esoteric field. The chapter on lubrication with $(CF)_x$ is clear and concise and addresses both lubrication capabilities and limitations. The relatively new area of superhydrophobic composites is a valuable introduction into an infant field likely to be technologically important.

On a typographical note, three errors were found. On page 242, $C_{60}F_y$ should be $C_{70}F_y$; and on page 388, $-CF_2-$ > $-CF_2-$ and $-CF_3$ > $-CF_3$ presumably should be $-CH_2-$ > $-CF_2-$ and $-CH_3$ > $-CF_3$.

As a practicing chemist whose interests lie in the organic chemistry of elemental fluorine, highly fluorinated cage mole-

cules, and direct fluorination in general, I was initially skeptical of the book's usefulness except for the short chapter on fluorinated fullerenes. The great number of figures and tables usually indicate a dull read. Nothing could have been further from the truth. Having read all 393 pages of text, I feel the book has brought me to the leading edge of a field which, though old, is undergoing an exciting renovation and expansion as modern techniques are brought to bear on its outstanding challenges. The book will be a valuable resource for chemists, physicists, materials scientists, industrial technologists, and others who have a need to explore or utilize the unique properties of fluorine-carbon and fluoride-carbon materials. Those who cannot justify a personal copy should be sure their library has one.

Reviewer: James L. Adcock is a chemist at the University of Tennessee in Knoxville and a specialist in elemental fluorine and its reactions. His work in fluorinated cage molecules and the synthetic and mechanistic behavior of elemental fluorine in organic chemistry is well-known in the field.

UPCOMING CONFERENCE

IUMRS-ICA-95 to be Held in Korea, Oct. 17–20

The Materials Research Society of Korea is organizing the International Union of Materials Research Society's 3rd International Conference in Asia to be held October 17–20, 1995, at the Korea Exhibition Center in Seoul, Korea.

The scope of the conference includes experimental and theoretical studies on the various materials and materials characterization. A special session called "Advanced Materials for Semiconductor" will be organized to provide a forum for discussing the progress of state-of-the-art technologies in semiconductor processing. This session is divided into four parts:

- Etching and Cleaning: low damage and highly selective etching process, high density plasma generation technology, contamination control, and gas phase and wet cleaning technique;
- Metallization: silicide process, diffusion barriers, interconnection materials, metal-MOCVD process development, and electromigration and stress migration;
- Dielectric Materials: deposition process

of dielectric, piezoelectric, pyroelectric, ferroelectric thin films, fundamental phenomena, characterization, and integration and application of dielectrics; and

- Semiconductor Materials: Si-based epitaxial growth, wide bandgap semiconductors, materials for flat panel displays, and III-V and II-VI compound semiconductors.

The other four topics of the conference are as follows:

- Functional Materials: including superconducting materials, magnetic materials, ionic conductors, battery materials, sensor materials, and shape-memory alloys;
- Structural Materials: including lightweight metals, high temperature materials, high wear-resistant materials, high strength and toughness ceramics, and metal/ceramic matrix composite;
- Polymer Materials: chemistry and physics of polymer materials, high performance polymer, and polymer composites; and
- Materials Characterization: spectro-

scopic analyses (UV, IR, Raman, AES, XPS, PL, RBS), and imaging techniques (SEM, STM, AFM, STEM).

Tadahiro Ohmi, from Tohoku University in Japan, and Kye-Hwan Oh, from Hyundai Electronics Industries Co, Ltd., in Korea, are the keynote speakers. The chair of the conference is Jin-Tae Song, from Hanyang University in Korea.

Two special events are planned. The conference will hold a banquet on October 18 in the Rose Room at Hotel Inter-Continental. On October 20, an industrial visit and tour is scheduled at Hyundai Electronics Industries Co., Ltd., and Korean Folk Village.

English is the official language of abstracts, full papers, and presentations at the conference. Conference proceedings will be distributed on-site.

For more information, contact Hyeon-Joon Kim, Secretariat IUMRS-ICA-95, Department of Inorganic Materials Engineering, Seoul National University, Seoul 151-742, Korea; phone 82-2-880-7162, fax 82-2-884-1413. □