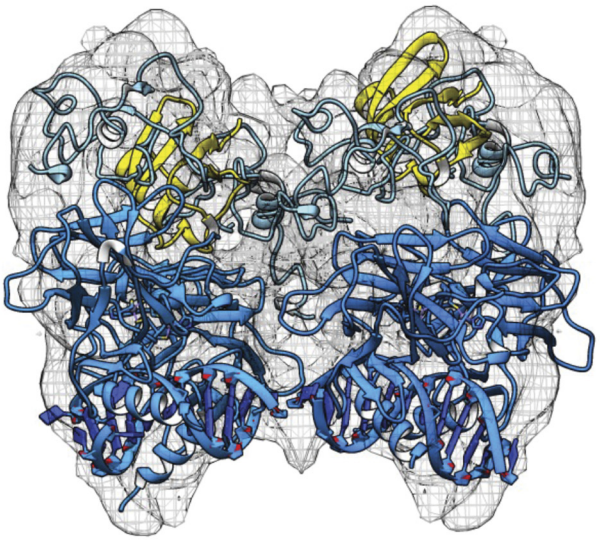
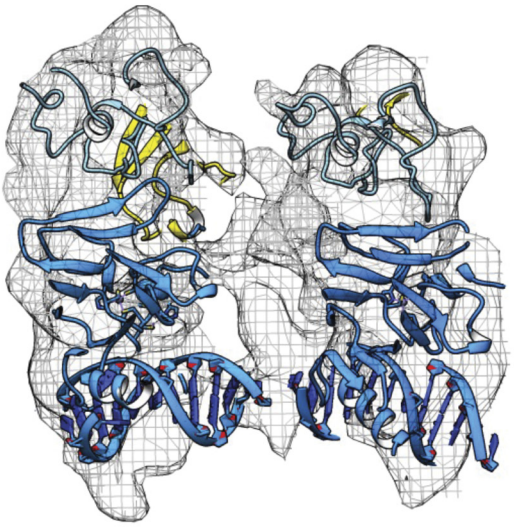
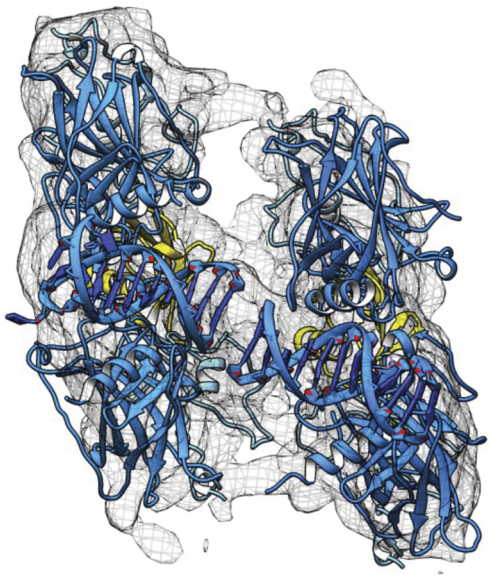
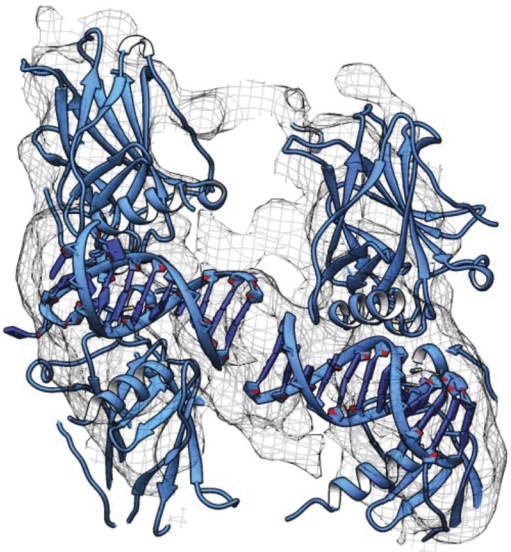
Volume 30 Number 2 2022 March

Microscopy TODAY









MSA Microscopy Society of America

www.microscopy-today.com

CAMBRIDGE UNIVERSITY PRESS

https://doi.org/10.1017/S1551929522000256 Published online by Cambridge University Press

Expand your Knowledge of Microscopy with MSA Membership!

Whether your primary focus is in light, electron, or scanning probe microscopy, or the biological or the physical sciences, MSA takes your knowledge to the next level!

Members Receive:

- A personal subscription to MSA's official journal, *Microscopy and Microanalysis*, and MSA's popular bi-monthly magazine, *Microscopy Today*.
- Peer Networking through the Society's Focused Interest Groups and Local Affiliated Societies.
- Discounts on books, journals and other educational materials.
- MSA Awards Programs, Scholarships, Speaker Opportunities, and more!

MSA
Microscopy Society of America

Join MSA Today!
Visit **www.microscopy.org**

DiATOME

the incomparable Diamond Knife for all fields of research...

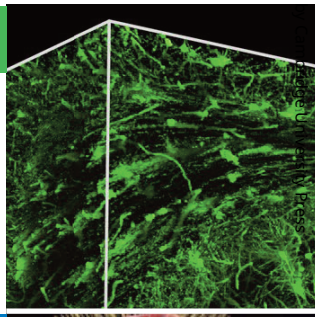
https://doi.org/10.1017/S1551929522000256

DiATOME Diamond Knives are the premier knife for biological and materials applications, compatible with all ultramicrotomes.

For decades, researchers have relied on DiATOME Diamond Knives superior quality, reliability, and durability. And with proper use, they require far less resharpening than any other knife, making them economical as well. Resharpened DiATOME knives undergo the same stringent optical checking and sectioning test as new knives. The same flawless quality is guaranteed.

Applications are numerous and include sectioning of hard or soft industrial samples, embedded biological samples, alternating ultrathin/semithin, and frozen hydrated samples. Please see our website for a complete applications guide.

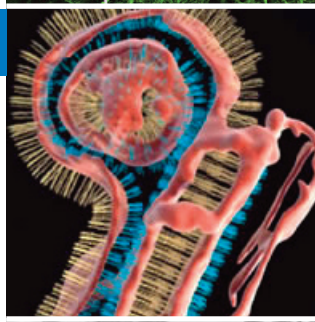
NEUROSCIENCE



Micro-Optical Sectioning Tomography to Obtain a High-Resolution Atlas of the Mouse Brain Anan Li, Hui Gong, Bin Zhang, Qingdi Wang, Cheng Yan, Jingpeng Wu, Qian Liu, Shaoqun Zeng, Qingming Luo

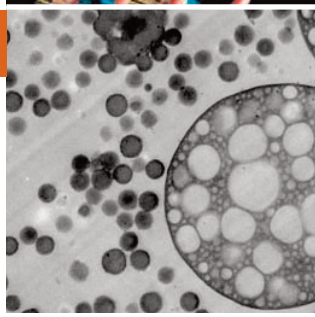
Britton Chance Center for Biomedical Photonics, Wuhan National Laboratory for Optoelectronics–Huazhong University of Science and Technology, Wuhan 430074, P. R. China.

CRYO



A single slice of a tomogram of an aldehyde fixed and sucrose infiltrated cryosection with a 3D reconstruction. Erik Bos and Peter J. Peters, Netherlands Cancer Institute, Amsterdam. (see: J. Lefman, P. Zhang, T. Hirai, RM. Weis, J. Juliani, D. Bliss, M. Kessel, E. Bos, P.J. Peters, S. Subramaniam: Three-dimensional electron microscopic imaging of membrane invaginations in Echerichia coli overproducing the chemotaxis receptor Tsr. J. Bacteriol. 2004 Aug; 186(15): 5052-61.)

MATERIALS



ABS, stained with OsO_4, sectioned at room temperature with the ultra sonic knife, section thickness 50nm. Note the almost perfect spherical shape of the large rubber particles and the preservation of the inclusions inside. Also the smaller dense rubber particles are well preserved. B.Vastenhout, Dow Benelux N.V. Terneuzen, The Netherlands.

Ultra-Wet 35° • Ultra-Dry 35° • Ultra-Semi 35° • Ultra Maxi 35° Ultra Jumbo 35° • Ultra Sonic 35° Ultra ATS 35° Ultra-AFM 35° Ultra-Wet 45° • Ultra Jumbo 45° • Cryo 25° • Cryo Immuno 35° Cryo-Dry 35° • Cryo-Wet 35° • Cryo-Dry 45° • Cryo-Wet 45° Cryo-AFM Histo 45° • Histo Jumbo 45° • Histo-Cryo Dry 45° Histo-Cryo Wet 45° • Trimtool 20 • Trimtool 45 • Static Line II

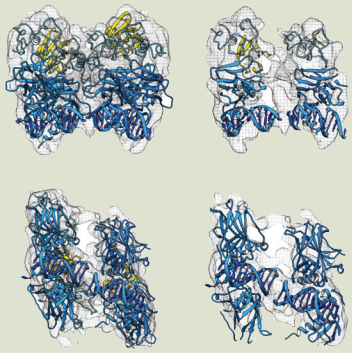
Get them from **THE** source...

DiATOME U.S.
P.O. Box 410 • 1560 Industry Rd.
Hatfield, Pa 19440
Tel: (215) 412-8390
Fax: (215) 412-8450
email: info@diatomeknives.com

Microscopy TODAY
Volume 30 Number 2 2022 March

Contents

About the Cover



Cryo-EM structure of the tumor suppressor P53 from human cancer cells. For further information, please see Solares and Kelly, page 10.

https://doi.org/10.1017/S1551929522000256 Published online by Cambridge University Press