PNNL-12154-2 UC-400

Annual Report 1999

Chemical Structure and Dynamics

Steven D. Colson, Associate Director Robin S. McDowell, Program Manager and the Staff of the Chemical Structure and Dynamics Program

February 2000

Prepared for the U.S. Department of Energy under Contract DE-AC06-76RLO 1830

PNNL-12154-2 UC-400

Annual Report 1999

Chemical Structure and Dynamics

Steven D. Colson, Associate Director Robin S. McDowell, Program Manager and the Staff of the Chemical Structure and Dynamics Program

February 2000

Prepared for the U.S. Department of Energy under Contract DE-AC06-76RLO 1830

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor Battelle Memorial Institute, nor any of their employees, makes **any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights**. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or Battelle Memorial Institute. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

PACIFIC NORTHWEST NATIONAL LABORATORY operated by BATTELLE for the UNITED STATES DEPARTMENT OF ENERGY under Contract DE-AC06-76RLO 1830

Printed in the United States of America

Available to DOE and DOE contractors from the Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831; prices available from (615) 576-8401.

Available to the public from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161

