

Edward S. Blurock Welcome

Contributed by Web Master
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Welcome to the homepage of Edward S. Blurock.

On these pages you can find material dealing with the research and teaching of Edward S. Blurock. The research is represented not only by the publication lists (most of the recent publications are downloadable in electronic form), but also the software systems in chemistry, combustion and machine learning.

The software systems in detailed combustion mechanism generation are essentially public domain and are available.

A new project that is just starting is the use of the chemistry software (and other public domain software) for eLearning and the creation of a dynamic textbook in organic chemistry.

Since 2000, Edward S. Blurock (EB) has been associated with the Combustion Physics Department of the University of Lund doing research in applying artificial intelligence and numerical methods to combustion problems. This work is and has been financed directly and indirectly by 6 European Community and Swedish National Science Foundation projects. EB is also assistant adviser to several doctoral students. Before this, from 1987 to 2000, EB was a member of the faculty of the Research Institute of Symbolic Computation and from 2000 to 2003, worked at the Software Park Hagenberg. In this period EB taught semester courses (in total 40) in programming (PROLOG, LISP, computer algebra systems), artificial intelligence (Introductory course and machine learning) and computer aided synthesis design. The highly multidisciplinary research was financed by chemical, steel and software industries and within European Community projects and Swedish and Austrian Research Foundation projects. The wide range of subjects included applying graph theory, artificial intelligence and multi-strategy machine learning techniques to organic synthesis design, combustion modeling, and industrial quality control problems. This research resulted in the integrated set of software systems, using C, C++, JAVA and web technology, being used by EB in his current research efforts.