

### Thermo-Calc Newsletter - Number 21, December 1997

**Since the creation of the Thermo-Calc company** (abbreviated as TCAB) in March, 1997, we have made some significant progresses in performing commercial marketing and sales, technical support and consultancy services of the Thermo-Calc and DICTRA software/databases packages, as well in developing of our future products related to these two packages. We are proud of the established partnerships with our existing and prospective customers and our agents all over the world, which have been constructively contributing to R&D of our clients and ourselves.

In the coming year, 1998, TCAB will further concentrate on providing our customers with high-quality of software/databases products and supporting services.

In this issue we are glad to share with you some related information of our accomplished and on-going R&D and commercial activities.

#### **TCAB's Responsibilities**

As announced in the Thermo-Calc Newsletter Nr.20, TCAB is the commercial agent of the Foundation of Computational Thermodynamics (FCT). All the commercial activities related to FCT's software and implemented databases have been undertaken by TCAB, including conducting marketing and sales of the Thermo-Calc and DICTRA packages, providing technical support and consulting services, organizing training courses, coordinating and supporting R&D of future generations of our products, etc.

#### **Information about TCAB**

Under the WWW site given above, more information about TCAB can be found, particularly on product and service spectrum, on-going R&D activities, international agents, collaboration partners, and so on.

#### **New Generations of Software**

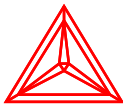
The Thermo-Calc Version M and DICTRA Version 20 are planned to be released in June, 1998. Since the formal release of the current versions (TC-L in February and DICTRA-19 in June, 1997, respectively), the R&D of new versions have been undertaken at the Department of Materials Science and Engineering, Royal Institute of Technology (KTH) and TCAB.

In Thermo-Calc Version M, some new models for non-metallic phases will be implemented. Moreover, there will be a special module for easy plotting ternary isothermal diagrams; the Scheil and Pourbaix modules will be updated. The POLY module will have an additional command for simple phase diagram calculations. Some new thermodynamic databases will be developed for various materials.

#### **TC4A is Ready!**

The Thermo-Calc for Academic Version, TC4A, is now ready for formal release. The following are some general regulations regarding its licensing, usage, liability, costs and other aspects:

- It is available on floppy disks or CD-ROM;
- It can be run on all kinds of UNIX and PC platforms;
- It will be distributed upon requests by university professors, researchers and students. No industry-related usage is allowed;
- A user must agree on a General Software License Agreement attached with the



distribution media;

- It is limited to maximum of 4 elements, and in some cases only 3 elements plus vacancies are permitted;
- Some limited databases containing only published data for some specific systems will be included;
- This is a free-of-charge version, only a distribution fee may be charged;
- The TC manuals will not be included, but could be obtained by paying the standard costs;
- No maintenance and support is provided with the TC4A version;
- It has been designed for university teaching activities, primarily to demonstrate the powerful features and flexibility of the Thermo-Calc software. Due to its limited functionalities and databases, we do not encourage use in any real academic research which normally need the full version of Thermo-Calc.

### **Some On-Going and Planned R&D on Future Software/Databases Products**

Many R&D activities have been initialized, started, or planned, within collaboration framework of TCAB, FCT, MSE-KTH and our partners. Such R&D projects are focussed on further development of models, databases and modules in Thermo-Calc and DICTRA packages, implementation of graphic user interface, improvement of application-oriented programming interface, updates and enlargement of thermodynamic and kinetic databases, enhancement of InterNet on-line calculations and consultancies, and so on. We will keep you informed on the progresses of such R&D activities.

### **New Application Fields of Software**

In addition to our traditional customers in R&D of steels, alloys, ceramics, semi-conductors and Earth materials, our software have attracted the attention of some new customers from food industry, nuclear power production and waste repository, environmental assessment and chemical engineering.

### **New TC and DICTRA Courses: Some TC and DICTRA courses will be held at**

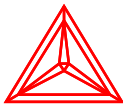
- KTH, or arranged by our agents or special partners, as listed below:
- Dec 17-19, 1997, DICTRA Course (3 days) at KTH (fully subscribed).
- Jan 7-9, 1998, TC Basic & Advanced Course (2+1 days) at KTH (fully subscribed).
- Jan 14-16, 1998, TC Basic & Advanced Course arranged by Laboratoire de Chimie Physique, Paris, France (contact: Prof. B Legendre fax: +33 1 46 83 54 54).
- Feb. 9-10, 1998, TC Basic Course at the University of the North, South Africa (contact: Prof. P Ngoepe, fax: +27 152 268 3268.)
- Apr 1998, TC Basic & Advanced Course arranged by CRC, Tokyo,
- Japan (contact: Kiyushi Hashimoto, fax: +81 3 5634 7338).
- Aug. 1998, TC Basic & Advanced Course (2+1 days) at KTH.
- Sep 1998, DICTRA Course (3 days) at KTH.

Additionally, AEA Technology will arrange TC and DICTRA courses in USA (contact: Ron Shell, fax: +1 412 833 4580).

For further information please contact us or the organizers directly.

### **Materials Scientist Consulting Club**

TCAB has invited some well-known MSE scientists and experts to join the TCAB Materials



Scientist Consulting Club. This group will provide our clients with consultancy support and advices, and exchange ideas and experiences in developing various software and databases.

**Ringberg Workshop**

There was a third workshop at Ringberg Dec 1-5. About 40 scientists from various fields attended this workshop. On the meeting data and models for thermodynamic systems were discussed as well as new applications and software.

The proceedings from the second Ringberg meeting about solution phase modelling has now appeared in the second issue of the Calphad Journal for 1997.

**New TCAB Price List**

From January, 1998, a new price list will be available at TCAB. Some prices for software/databases and services has been updated. This list does not apply for regions where our agents have special price lists.

TCAB will do its very best in continuously improving and expanding our software/ databases products and support services. All kinds of comments and suggestions on our technical and commercial activities are warmly welcome.

We would like to take this chance to send our best regards to all of clients and partners: Wish you

Merry Christmas and a Happy New Year!

Bo Sundman Pingfang Shi

Chairman of TCAB Board MD of TCAB