

Editorial

The meeting, 8^{èmes} Journées d'Études sur les Nitrures, JENI 8, was held in the Ecole Nationale Supérieure des Mines in Saint-Etienne, October 11–12, 1990.

Before discussing the content of this conference, it may be helpful to say something of the history of JENI.

The need to discuss results and establish cooperation between the only two French laboratories involved in nitrogen chemistry, i.e. Professor Lang in Rennes and Professor Billy in Limoges, was at the origin of JENI 1, held in Rennes in 1973. English colleagues also concerned with the topic, namely Professor K. Jack of Newcastle, Dr F. Riley of Leeds, and Dr Jayawera of Plymouth, were also invited to that first meeting.

The first JENI conferences were mainly devoted to nitrogen chemistry (reactivity, crystallography, phase diagrams...). The early participants will remember epic discussions about the α and β Si_3N_4 phases and about the homologous correspondences with germanium, as in $\text{Si}_2\text{N}_2\text{O}$, $\text{Ge}_2\text{N}_2\text{O}$, as well as about aluminium oxynitrides.

As the Limoges laboratory became progressively more oriented towards ceramics, more and more ceramists and solid physicists participated.

Because the two main French teams involved in nitrogen chemistry and nitrogen ceramics were in Rennes and in Limoges, five JENI conferences took place in these towns. Then JENI 6 (1984) and, most recently, JENI 8 were held in Saint-Etienne.

Turning specifically to the present JENI 8, the meeting was organized with the participation of the Groupe Français de la Céramique, a member of the European Ceramic Society. The participants, numbering 106, from industry and from the research sector in Europe, presented 48 contributions. Different fields in nitrogen materials were discussed: power synthesis, plasma, CVD, sintering, reactivity, new phases and glasses, ceramic–ceramic composites, physical and mechanical properties.

A special emphasis was given to aluminum nitride, which can be substituted for alumina or beryllia in such applications as substrates, electronic devices and tubes. All aspects were discussed during a lively round table. In view of the international position with respect to aluminum nitride products and devices, it was clear that Europe must coordinate its efforts and seek new fields for the further development of this material. Statements have been published in a special issue of *L'industrie céramique* (Paris), October 1990. The current significance of aluminium nitride has been additionally pointed out in a review article published in *Ceramic Bulletin*, November 1990.

At the end of the meeting it was decided that JENI 9 would be held in September 1992 and would be organized by the Laboratoire de Céramiques Nouvelles in Limoges.

Some of the more significant papers presented at JENI 8 are grouped in this and the following special issue of the *Journal of the European Ceramic Society*. We thank the Editor for this opportunity which we hope can help to promote European ceramic research in this important subject area.

F. Thevenot

Chairman of JENI 8

Ecole Nationale Supérieure des Mines de Saint-Etienne