

## News Briefs

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### MANGANESE AND THE USSR

The Soviet Union, with an output of about 9 Mt of manganese ore exported in 1989 a total of 987 kt, a decrease of 9 per cent from the year before.

Destinations of Soviet manganese ore exports in 1989 were as follows: Poland 506 kt, Czechoslovakia 280 kt, East Germany 90 kt, North Korea 32 kt, Yugoslavia 29 kt, Bulgaria 12 kt, unknown destinations 38 kt.

Compared to 1988, exports to Poland showed a drop of 22 per cent, but those to Czechoslovakia marked an increase of 42 per cent in 1989.

Easily mined reserves in the USSR are dwindling rapidly and the country is no longer able to supply its Eastern European neighbours with the bulk of their concentrate requirements and it is already believed to be importing up to 0.4 Mt/y of ore from the market economy countries.

### MAGNETITE IN INDIA

Magnetite containing nickel, chromium and cobalt has been located at several sites in Nagaland in North-East India.

A reserve of approximately 4.5 Mt of magnetite with an average of 45 per cent Fe, 8-10 per cent Ni, 2-3 per cent Cr and 0.09 per cent Co has been indicated.

### MINERAL DISCOVERIES IN VIETNAM

Number of recent mineral discoveries in Vietnam have been reported. They include antimony, uranium, wolfram, precious metals and rare-earths.

In addition, bauxite and lead and zinc deposits were discovered.

In the first few months of 1990 the state enterprises exported 1 kt of ilmenite and 200 t of zircon.

**RARE-EARTH MAGNETS IN JAPAN IN 1990**

Output of rare-earth magnets has shown a considerable growth in Japan in January-September 1990. Production of rare-earth magnets in the first three quarters of 1990 was worth ¥ 34.5 bill., 11 per cent of the electronic materials market and a 20 per cent increase over the same period in 1989. This compares to growth rates of over 9 per cent in 1988 and almost 10 per cent in 1989. In terms of volume, growth in rare-earth magnet production was even higher, increasing by 30 per cent to 1.1 kt in January-September 1990. Nd-Fe-B magnets account for over 50 per cent of the market, with the next largest group being Sm-Co magnets. Until recently, neodymium magnets were mainly used in motors for magnetic discs equipment and magnetic resonance scanning equipment, but are now used in camera motors and speakers. Japanese production of magnetic materials, Jan.-Sept. 1990, is shown in the following table:

Material	t	1990 as % of 1989	mill ¥	1990 as % of 1989
Cast magnets	1473	+11	5842	+7
Ferrite magnets	6165	-5	43480	-
Rare earth magnets	1101	+30	34492	+20
Other magnets	10	+11	458	+32
Total	64549	-2	84273	+8

**SUPERCONDUCTORS POWER SHIP**

A 30-meter-long, 185-ton ship powered by superconductive thrusters has been built by Mitsubishi Heavy Industries, Ltd. at its shipyard in Kobe, Japan. Underneath the vessel, the first of its kind, superconducting coils generate a strong magnetic field that repels water molecules taken into the thrusters as the ship moves forward. The Nb-Ti coils are cooled in liquid helium. although the prototype is expected to hit only 8 knots during its first sea trials in early 1991, designers expect the technology eventually to produce ships capable of much greater speeds.

**CANADIANS SET TO MINE MADAGASCAN BEACHES**

Conclusions of an environmental impact study of a project to extract ilmenite at Taolagnaro were published in November 1990.

Overseas reports state that the ore mined will be sands containing ilmenite, rutile, zircon and monazite, at the Mandena, Petriky and Taolagnaro sites.

The project will, however, require the destruction of 75 per cent of a 4000 ha coastal forest zone.

The project will be a joint venture linking the Office Militaire National pour les Industries Strategiques (Omnis) and Canadian company Qit Fer et Titane Inc.

The ilmenite production potential is estimated at 725 000 ton a year for 40 years.

According to the report, the project is expected to generate foreign currency income of some \$20M a year for the 40-year period, and will directly provide 550 jobs.

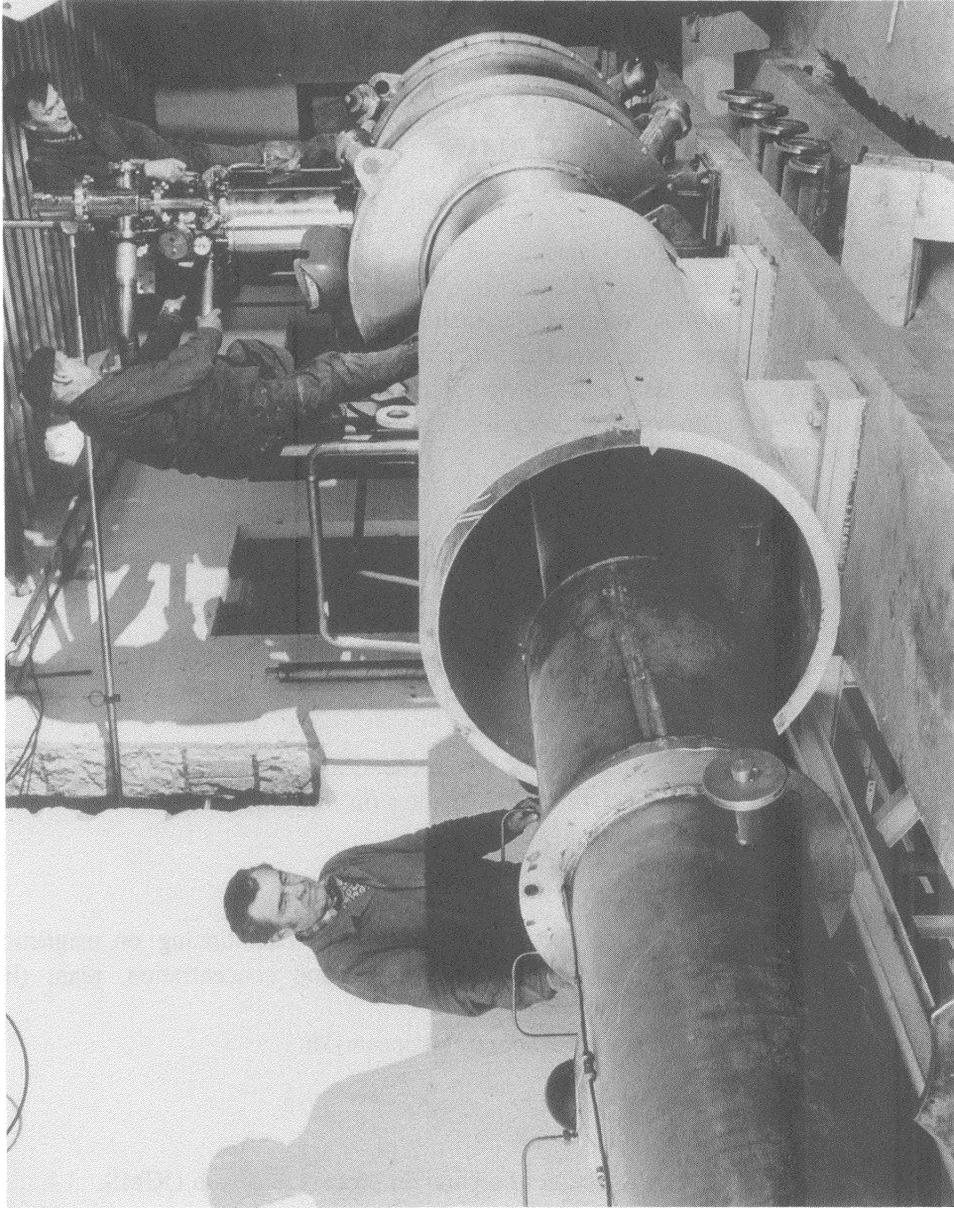
Investments required are set at about \$300M.

### **SUPERCONDUCTING MAGNETIC SEPARATOR ABANDONED**

The production-scale superconducting magnetic separator developed by the Research Institute for Refrigeration Engineering in Prague, and applied to kaolin beneficiation (see paper by J. Kopp in this issue) has been closed down and put to reclamation.

Although, initially, the performance of the separator was encouraging, subsequent deterioration in efficiency and drop in throughput as a result of matrix blockage are given as the main reasons for closure. It is suspected that insufficient velocity of flush water and strong stray magnetic field in flush stations were the main culprits.

The ambitious, 22 million Czechoslovak koruna (approximately US\$ 1 million) project has come to an end, making way for resistive magnets to be used in the Czechoslovak kaolin industry (see paper by V. Hencl in this issue).



**The Czechoslovak reciprocating-canister superconducting magnetic separator**