

soften the terms of the resolution adopted last June. According to one report, the Iraqis are being told that if they demand too much, they will lose the Europeans' support. If they ask for a simple condemnation rather than a vote to expel Israel, they may win general approval.

The European members apparently have not given U.S. officials any clear reading on the role they will play in the debate. One American official says that it would be a great embarrassment even to have the IAEA debate the proposal to expel Israel. Although the American delegation would stand by Israel, officials would find it difficult to say anything in defense of Israel's behavior. It would be far worse if Israel actually were expelled, according to this official, for then the United States would probably fall into a "retaliatory mode" aimed at punishing the IAEA. This would be unfortunate for the United States and for the world. The IAEA is essentially America's creation and the only existing agency whose mission is to control the spread of nuclear weapons technology.—**Eliot Marshall**

Scientific Family Under Attack in Russia

The persecution of Russian biologist Sergei Kovalev, a founding member of the Moscow civil rights action group, has been extended to the members of his family. His daughter-in-law, computer specialist Tatiana Osipova, was given a 10-year sentence earlier this year for anti-Soviet agitation and last month his son Ivan was arrested. Both Ivan and Tatiana were members of the Moscow civil rights group.

An open letter on behalf of the three members of the Kovalev family has been sent to Linus Pauling by academician Andrei Sakharov from his exile in Gorki. Citing their efforts 20 years ago when each was working in his respective country to limit the testing of nuclear weapons, Sakharov asks Pauling to appeal to world leaders on behalf of the Kovalevs.

Sakharov's letter, which has recently become available, was written on 4 May this year, before Ivan Kovalev's

expected arrest. Ivan, an engineer, lost his job after attending his father's trial in 1975. In a statement issued last year after his wife's arrest, Ivan explained that the human rights activities in which he and his wife were engaged were "essentially a manifestation of normal human feelings: compassion, the desire to help a person in need, and a sense of personal re-



Ivan Kovalev

Dorothy Hirsch

sponsibility for that which transpires around us. In our country, people are brought to trial for this. Here truth becomes falsehood and helping another human being becomes criminal activity."

Ivan's father Sergei Kovalev is nearing the end of his 7-year sentence in labor camp and then faces 3 years in exile, also part of the sentence. Sergei, a physiologist of some distinction, has an open invitation to join the faculty of the Section of Neurobiology and Behavior at Cornell University. Sakharov called him "a man of great spiritual purity and strength, of unlimited altruism."

—**Nicholas Wade**

Research Council Supports Mining Rule Changes

A panel of the National Research Council has endorsed some long-standing coal industry complaints about federal strip-mining rules. Plac-

ing an equal amount of blame on the federal law of 1977 and the regulations drafted under the Carter Administration, the council says that the current requirements for mine reclamation are inflexible, occasionally unrealistic, and frequently too costly.

The council's report, which focuses on methods for disposal of strip-mining spoil, echoes many of the themes sounded in recent months by Interior Secretary James Watt (*Science*, 15 May, p. 759). It suggests that greater tolerance be provided for the diversity of mining sites, enabling operators to meet environmental requirements in a manner of their own choosing. By prescribing precise methods for disposal of mining spoil, the current rules "have frozen the technology of . . . reclamation practices, preventing coal mine operators from improving their competitiveness," the council says.

Current rules are filled with specific requirements for mining reclamation because Congress did not trust the industry to meet more general objectives, the report notes. The regulators also presumed that the mining industry lacked sufficient technical know-how to create its own means of compliance. The council says that the problem can be overcome by setting up federal technical assistance teams that roam the countryside, teaching mine operators the requisite engineering principles.

Presentations by mining companies evidently convinced the council that some of the current requirements might in certain circumstances cause more environmental problems than they would cure. At the least, they are frequently more burdensome than necessary. The panel suggested that Congress change the strip-mine law in order to permit more balancing of reclamation benefits and costs.

The Office of Surface Mining, which requested the report in April 1980, has already eased some of its enforcement rules, and is considering changes in rules that prevent erosion and limit water pollution from mining operations.

The panel was chaired by Frank Kottowski, a geologist with the New Mexico Bureau of Mines, and included seven members from universities, two others from state agencies, one federal expert, a consultant, and two mining company officials.

—**R. Jeffrey Smith**