Polychloride biphenyl (PCB), regarded as a new pollutant, can be dissolved into a harmless element through irradiation, according to the Osaka Prefectural Central Radiation Research Institute.

The institute is planning to report on researches conducted on the matter at an international meeting on contamination of water to be held in Jerusalem from June 18.

Announcement of the results of researches is expected to cause extensive repercussions as many countries have not yet found effective measures to cope with PCB.

PCB is an organic chlorine compound similar to DDT.

It is extremely stable and highly resistant to heat, acid and alkali.

Since its insulation quality is good, it is being widely used for the making of printing ink, paint and sensitive copying paper as well as for insulation of TV sets.

One of the major defects, however, is that PCB is difficult to dissolve. This has resulted in an increase in PCB in the natural environment.

Since organic elements in water, such as mercury and phenol can be dissolved into harmless elements through radiation, scientists at the Osaka Prefectural Central Radiation Research Institute started researches in the Spring of last year on dissolving of PCB with the same method.

Experiments conducted have shown that if gamma rays from cobalt 60 are applied to two liters of PCB liquid, the PCB can be virtually dissolved through irradiation of 10 million roentgens in the case of density of 100 parts per billion (one PPB equals 1/1000th parts per million) and 10,000 roentgens in the case of density of 10 PPB.

cc: Lafarge
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