FAULT CATALOGUE IN JAPAN

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In the geological disposal of high-level radioactive waste, faults including active faults are one of important siting factors in terms of underground water flow and disruption or damage of the facilities.

No fault catalogues in Japan have yet been published, except for active faults or Quaternary faults. This catalogue will be very useful for the siting and evaluation of the geological environment. All faults in Japan whose surface traces are longer than about 10 kilometers are listed in this catalogue.

The principal data sources are;

* geological maps of 1/200,000 published from Geological Survey of Japan,
* engineering geological maps of 1/200,000 published from Japan Institute of Construction Engineering,
* Active Faults in Japan (revised edition) published from Research Group for Active Faults of Japan, University of Tokyo Press, 1991.

About 3,000 faults have been picked up from the data sources above. In addition, geological maps of 1/50,000 published from Geological Survey of Japan are referred for detailed description of fault elements.

Entries on the list

* geometry of faults: length of fault trace, width of shear zone, strike and dip
* characteristics of faults: sense and amount of displacement, feature of shear zone, lithology on both sides of fault, age of faulting
* physical properties of fault zone (if available): strength, density, permeability, etc. of sheared rock
* regional stress field (if available)
* Bibliographies of each fault

Regional occurrences of faults are shown;

* frequency of faults for each map (1/200,000)
* total length of faults for each map (1/200,000)
* fault length distribution for each map (1/200,000)
* dominant attitude of faults for each geologic terrane or belt or unit