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[\[PDF \(908K\)\]](#) [\[References\]](#)**INFLUENCE OF FAULT MECHANISM, DEPTH, AND REGION ON STRESS DROPS OF SMALL AND MODERATE EARTHQUAKES IN JAPAN**Toshimi SATOH¹⁾

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Stress drops of 168 earthquakes (focal depth ≤ 60 km, $4.4 \leq MW \leq 6.9$) are estimated by a generalized-inverse method using strong motion records in Japan. Stress drops of crustal earthquakes are dependent of focal depths. Stress drops of reverse-faulting earthquakes are two times greater than those of strike-slip faulting earthquakes and stress drops of strike-slip faulting earthquakes are two times greater than those of normal-faulting earthquakes. These results are consistent with the crustal strength expected from a frictional law. Stress drops of intraplate earthquakes have more variation than those of interplate earthquakes, but are two times greater than those of interplate earthquakes on average.

Key Words: stress drop, fault mechanism, crustal earthquake, interplate earthquake, intraplate earthquake

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