

Volcanoes

magma ascent and eruption



Image courtesy of USGS.

Magma fragmentation

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Please see “Magma fragmentation” in:

Houghton, B., H. Rymer, J. Stix, S. McNutt, H. Sigurdsson.

Encyclopedia of Volcanoes. San Diego, Calif. : Academic, c2000.

ISBN: 9780126431407.

Magma fragmentation

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Please see Figure 7 in:

Houghton, B., H. Rymer, J. Stix, S. McNutt, H. Sigurdsson.

Encyclopedia of Volcanoes. San Diego, Calif. : Academic, c2000.

ISBN: 9780126431407.

Magnitude and intensity

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Please see “The Volcanic Explosivity Index Table” in:
Houghton, B., H. Rymer, J. Stix, S. McNutt, H. Sigurdsson.
Encyclopedia of Volcanoes. San Diego, Calif. : Academic, c2000.
ISBN: 9780126431407.

$$\text{magnitude} = \log_{10}(\text{erupted mass, kg}) - 7.$$

$$\text{intensity} = \log_{10}(\text{mass eruption rate, kg/s}) + 3.$$

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Please see “Table II” in:

Houghton, B., H. Rymer, J. Stix, S. McNutt, H. Sigurdsson.

Encyclopedia of Volcanoes. San Diego, Calif. : Academic, c2000.

ISBN: 9780126431407.

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Please see “Table III” in:

Houghton, B., H. Rymer, J. Stix, S. McNutt, H. Sigurdsson.

Encyclopedia of Volcanoes. San Diego, Calif. : Academic, c2000.

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