

### TEKTITES IN OZONE ELEVATION INFRARED WAVELENGTH

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Strewnfields and distribution of tektites clastic ejecta(1) are often aeolian arid or semi-arid regions. The 1848 to 1993 records of the arid region Great Salt Lake, have associated long term atmospheric pressure, precipitation, temperature, and streamflow records(2), coherent climate fluctuations with periods of 12 and 16 years related to the sunspots cycle.

The glass fragments found in Argentina at Rio Cuarto, Santa Rosa(400km) and Necochea(800 km) were formed by a common impact. The widespread distribution of glass suggests a source crater >5 km in diameter, given that loessed sedimentation was ongoing throughout the 0.5 Ma.

The presence of low pressure bubbles containing atmospheric gasses trapped in australites has given the altitude of 40 km for their formation, the actual ozone layer elevation(3).

The upper stratospheric maximum temperature increasing with ozone depletion at 30-45 km altitude don't explain the high temperature tektites irradiation of thousand degrees(1800°C) at 40km. The Maximum values are found in chondrules shock wave model: density, temperature and pressure increase with the velocity(4). The Australites collection, 60-70% spherules common form with a sharper rim, came from semi arid or arid region.

No impact crater for the Australasia strewn field has been found. Yet it covers from China(5) to Tasmania and west to the Indian Ocean. The high Beryllium 10 concentrations in australites indicate more paleosols(6). Beryllium increases with iron and 8 times faster than oxygen(7)

A common character of Raman spectra of tektites and obsidians is the appearance of broad bands centered around 1000 and 1600 cm<sup>-1</sup> due to substitutions of silicon by metals. Tektites have a strong absorption band at 1100 nm which originates from Fe<sup>2+</sup> ions(8).

**Conclusions:** The lifetime exposure of tektites distribution in current atmospheric science models cover the femtosecond GPS and laser remote sensing techniques accuracy.

The Earth's atmosphere filters out tektites.

**References :** (1) Mossbauer spectroscopy of K/T boundary clays: characteristics of iron bearing mineral. (2) Utah Water Research Laboratory April 1994. (3) Australites. (4) Harold C. Conolly Jr, Stanley G. Love. The formation of chondrules. Science 1998 April 3; 280:62-67. (5) Tektite in Mid Pleistocene China Science. (6) Be10 in Muong Nong Tektites 61<sup>st</sup> Annual Meteoritical Meeting. (7) A. Boesgaard. (8) E. Faulques, E. Fritsch, M. Ostrooumov Spectroscopy of natural silica-rich glasses