This face-on colour view of Enceladus was taken by the international Cassini spacecraft on 31 January 2011, from a distance of 81,000 km, and processed by amateur astronomer Gordan Ugarkovi?. Credit: NASA/JPL-Caltech/SSI/G. Ugarkovi?

Enceladus is a moon bursting at the seams: along the southern hemisphere, plumes of ice particles mixed with water vapour, salts and organic material jet from fissures nicknamed ‘tiger stripes’.

Some of the plumes pump their spray into space at speeds of over 2000 km/h, injecting particles into Saturn’s E-ring.

The chemistry of the plumes suggests that there may be a liquid ocean hidden beneath the moon’s surface that could provide a suitable habitat for life.

A thin crescent of Enceladus is illuminated by incident sunlight coming from the right hand side of this frame, including sunlight that has been reflected by Saturn onto the moon.