



TOI - 560c



**Fast Facts:**

TYPE

Mini-Neptune

RADIUS OF THE PLANET

17513.82 km

MASS OF THE PLANET

$9.70^{+1.80}_{-1.70} M_{\text{EARTH}}$

ORBITAL PERIOD

18d 21h, 1632098s

DISTANCE TO HOST STAR

0,125ua /  $1,869 \times 10^7$  km

DENSITY

2,57 g.cm<sup>-3</sup>

DISCOVERED

2021 by the TESS survey

CHARACTERISTICS

believed to be similar to Neptune

COMPOSITION

Rocky

TEMPERATURE

$225 \pm 15$  °C

Compared to KELT-3b, TOI-560c is almost tropical, though it is still hundreds of degrees Celsius warmer than the Earth.

Cheops observed this mysterious exoplanet on the **23 January 2023 at 13:12 CET**. By analysing this data we have discovered that TOI 560c is...

A planet that can't be habitable because of its closeness to the host star, TOI-560, which proximity means a very high surface temperature and an exposure to high levels of radiation; due to this, liquid water can't exist on the planet's surface and the forms of life we know and love can't survive these conditions.

In comparison to the planets in the Solar System, TOI-560c...

Is similar to a rocky planet of the Solar System, given its radius, mass, mean orbital distance and orbital period. TOI-560c's density is closer to Mars' density. Moreover, due to its closeness to the host star, TOI-560, the planet is exposed to the winds the star emanates and can't, because of them, form an atmosphere.

**TOI-560**, also known as HD 73583, is a small orange-red star in the Hydra constellation, around 103 light years away from Earth.

TOI-560 is smaller and cooler than our Sun.

Besides TOI-560c, there is a second planet orbiting this star, TOI-560b.

Mass of the star =  $0.73 \pm 0.02 M_{\text{Sun}}$

Radius of the star =  $0.65 \pm 0.02 R_{\text{Sun}}$