

Venus

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After decades of relative neglect, interest in Venus surges anew in the planetary science community and the public. New missions are planned and selected and will pave the way to the decade of Venus, as new observations allow us to uncover some of the many mysteries our closest Solar System neighbor still harbors. Building on the legacy of past works, we discuss the state of our understanding of Venus from both observation and modeling.

We describe each of the envelopes of the planet, from its atmosphere to its interior with an eye for the most recent advances and current topics of interest. We then briefly discuss coupled modelling efforts to better constrain the evolution of the planet. Finally, we describe how the upcoming missions and concepts will further lift the veil on Venus' secrets.