

## **BP3** Omicron Leonis, an evolving Am binary

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Both components of the composite-spectrum binary  $\omicron$  Leo ( $V = 3.52$  mag) have Am characteristics, even though the primary is an evolving giant ( $\log g = 3.25$ ) with  $T_{\text{eff}} \sim 6100$  K. This is believed to be the first isolation of such a cool Am star, and the finding challenges the theories of diffusion which are widely accepted as the cause of metallicism. The primary component of  $\omicron$  Leo appears to be deficient in Ca and Sc, as are classical Am stars, and therefore seems to be in a class on its own. The unusual state of the primary component is attributable either to its current state of rapid evolution, or to regular Am-star evolution that is difficult to recognize spectroscopically.

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