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3D carbon and oxygen abundances in CEMP stars from molecular lines

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Molecular lines are frequently the only available carbon and oxygen abundance indicators in CEMP stars. However, formation of molecular lines in the atmospheres of CEMP stars is prone to the influence of convection and NLTE. These effects have to be properly taken into account when aiming at reliable abundance estimates. In this contribution we present an overview of the current status in the studies of carbon and oxygen abundances in CEMP stars using molecular lines and 3D hydrodynamical model atmospheres. We focus on the progress made in this field during the recent years, discuss the outstanding problems and possible ways for tackling them in the future studies.

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