
The chemical make-up of the solar photosphere

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Abstract

The updated analyses of the solar chemical composition in the early 2000's brought a significant reduction (up to 40 %) in the abundances of carbon, nitrogen and oxygen compared to earlier estimates. These changes ended the excellent agreement between seismic measurements and the predictions from classical models of the structure of the interior of the Sun, and have triggered an ongoing debate on whether the discrepancies are related to issues with the interior models, their basic input data (e.g. radiative opacities), or the spectroscopic analysis that brought the abundance changes. This talk will critically examine the results in the recent literature on the subject, and probably make some recommendations.

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