

## RATIO OF OTHO/PARA-FORMALDEHYDE SUBLIMATED FROM ENERGETICALLY PROCESSED INTERSTELLAR ICE ANALOGS

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The ortho-to-para ratios (OPRs) of interstellar molecules with symmetric hydrogen nuclei are thought to provide information about their thermal and chemical history. The OPR of formaldehyde ( $\text{H}_2\text{CO}$ ) is sometimes used to predict whether this compound formed on a cold interstellar grain or in the gas phase at warmer temperatures, but the full meaning of the OPR detected in interstellar space is still a topic of debate. This work aims to unravel more information about the OPR of  $\text{H}_2\text{CO}$  formed on icy interstellar grains through laboratory experiments. In these experiments, the OPR of  $\text{H}_2\text{CO}$  is measured using submillimeter spectroscopy after low-temperature formation by ultraviolet photolysis of interstellar ice analog samples containing water ( $\text{H}_2\text{O}$ ), carbon monoxide ( $\text{CO}$ ), and/or methanol ( $\text{CH}_3\text{OH}$ ). The experimental approach and preliminary results will be discussed.