P124a **Unbiased Chemical Survey of Protostellar Sources in Perseus**

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It is well known that low-mass protostellar cores show significant chemical diversity. One distinct case is hot corino chemistry characterized by rich saturated complex organic molecules, while the other distinct case is warm carbon chain chemistry (WCCC) characterized by rich carbon-chain molecules. However, the number of sources definitively classified into them are limited, and the statistics has been apparently poor. Here, we have conducted an unbiased survey of chemical composition toward 34 Class 0 and Class I protostars in the Perseus molecular cloud complex by using IRAM 30 m telescope (1.2 mm band) and NRO 45 m telescope (3 mm band).

We have detected multi-transition lines of CCH, c-C_3H_2, CH_3OH, $HN^{13}C$, $H^{13}CO^+$, CS, and SO toward most of the sources. The lines of DNC, C_4H, and CH_3OCHO have also been observed. The result shows clear chemical diversity, where many intermediate sources are found between the two distinct cases. Especially, we have found a marginal trend that isolated sources and sources in cloud peripheries tend to be like the WCCC source. The relative occurrence of each category (hot corino chemistry, WCCC, or intermediate) as well as preferential association of the sources in each category with a specific part of the cloud complex will give us an important clue to understanding the origin of the chemical diversity in terms of evolutionary and/or environmental effects.