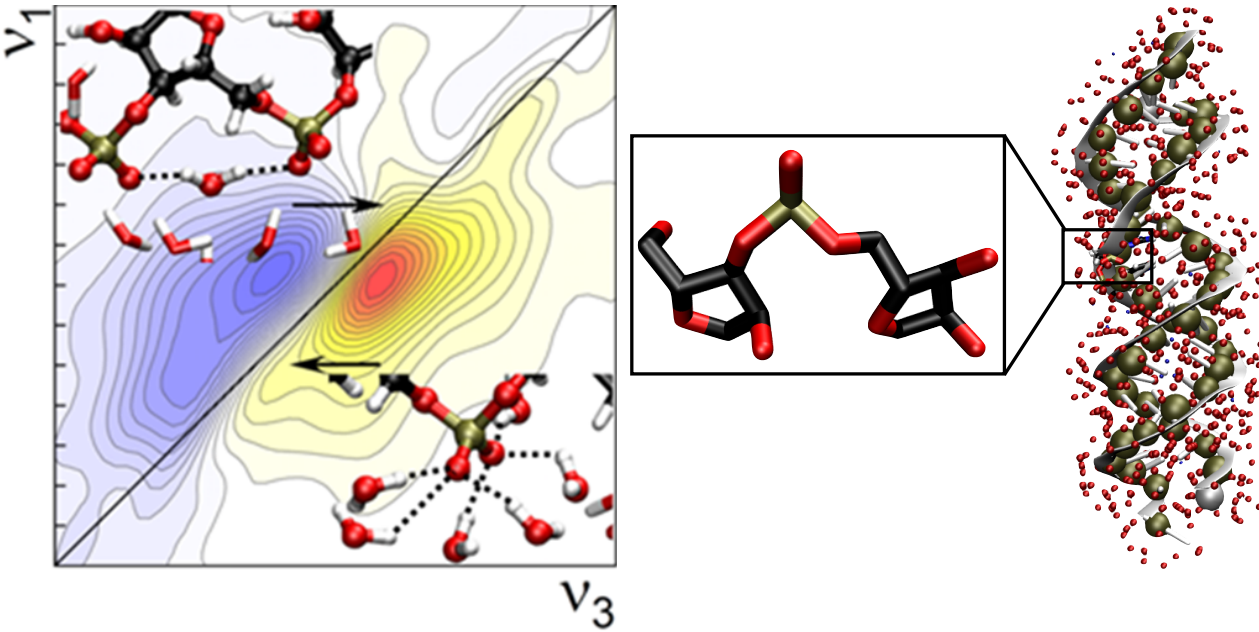


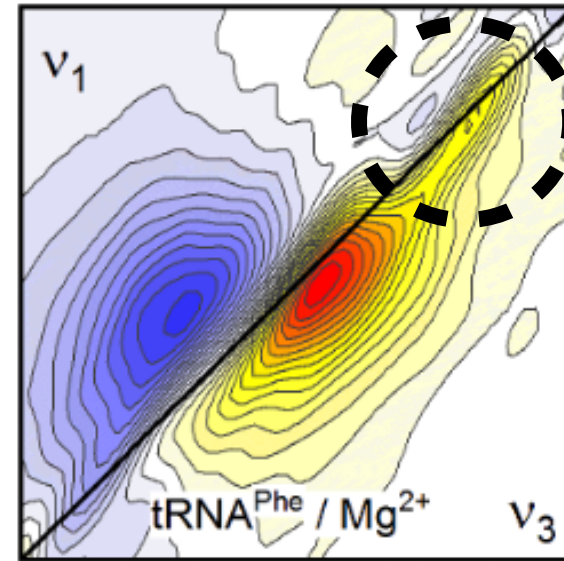
P5038: NONCOVALENT INTERACTIONS OF HYDRATED DNA AND RNA MAPPED BY 2D-IR SPECTROSCOPY

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- 2D-IR spectroscopy identifies distinct ordered and local hydration structures of the sugar-phosphate backbone of dsRNA (AU)₂₃
- RNA melting is connected with transitions between the different hydration structures

Kundu *et al.*, J. Phys. Chem. B **124**, 2132-2138 (2020)



- Contact ions of Mg²⁺ and (PO₂)⁻ groups: new blue shifted peak in 2D-IR spectra
- Contact pairs: efficient screening of (PO₂)⁻ - (PO₂)⁻ repulsion, relevant for stabilizing the tertiary structure of tRNA.

Schauss *et al.* J. Phys. Chem. B. **125**, 740-747 (2021).

