

## Vibration period

	$\omega$ [ $\text{cm}^{-1}$ ]	$T_v$ (fs)
$\text{H}_2$	4395	7.6
$\text{H}_2^+$	2297	14.5
$\text{N}_2$	2360	14
$\text{N}_2^+$	2200	15
$\text{O}_2$	1580	21
$\text{O}_2^+$	1900	18
$T(2000\text{nm}) = 6.7 \text{ fs}$		