

**Water Molecule Character Table:**

<b>C<sub>2</sub>V:</b>	<b>E:</b>	<b>C<sub>2</sub>:</b>	<b><math>\sigma_v(x,z)</math>:</b>	<b><math>\sigma_v(y,z)</math>:</b>	<b>Translation component:</b>	<b>Quadratic functions:</b>	<b>Order: 4</b>
A <sub>1</sub>	1	1	1	1	z	$x^2, y^2, z^2$	3
A <sub>2</sub>	1	1	-1	-1	R <sub>z</sub>	xy	1
B <sub>1</sub>	1	-1	1	-1	x, R <sub>y</sub>	xz	3
B <sub>2</sub>	1	-1	-1	1	y, R <sub>x</sub>	yz	2
$\Gamma$	9	-1	3	1			