Table 12: Rubidium 87 D_2 ($5^2S_{1/2} \longrightarrow 5^2P_{3/2}$) Dipole Matrix Elements for σ^+ transitions ($F = 1, m_F \longrightarrow F'$, $m'_F = m_F + 1$), expressed as multiples of $\langle J = 1/2||er||J' = 3/2\rangle$.

	$m_F = -1$	$m_F = 0$	$m_F = 1$
$F' = 2$	$\sqrt{\frac{1}{24}}$	$\sqrt{\frac{1}{8}}$	$\sqrt{\frac{1}{4}}$
$F' = 1$	$\sqrt{\frac{5}{24}}$	$\sqrt{\frac{5}{24}}$	
$F' = 0$	$\sqrt{\frac{1}{6}}$		

Table 13: Rubidium 87 D_2 ($5^2S_{1/2} \longrightarrow 5^2P_{3/2}$) Dipole Matrix Elements for π transitions ($F = 1, m_F \longrightarrow F'$, $m'_F = m_F$), expressed as multiples of $\langle J = 1/2||er||J' = 3/2\rangle$.

	$m_F = -1$	$m_F = 0$	$m_F = 1$
$F' = 2$	$-\sqrt{\frac{1}{8}}$	$-\sqrt{\frac{1}{6}}$	$-\sqrt{\frac{1}{8}}$
$F' = 1$	$-\sqrt{\frac{5}{24}}$	0	$\sqrt{\frac{5}{24}}$
$F' = 0$		$\sqrt{\frac{1}{6}}$	

Table 14: Rubidium 87 D_2 ($5^2S_{1/2} \longrightarrow 5^2P_{3/2}$) Dipole Matrix Elements for σ^- transitions ($F = 1, m_F \longrightarrow F'$, $m'_F = m_F - 1$), expressed as multiples of $\langle J = 1/2||er||J' = 3/2\rangle$.

	$m_F = -1$	$m_F = 0$	$m_F = 1$
$F' = 2$	$\sqrt{\frac{1}{4}}$	$\sqrt{\frac{1}{8}}$	$\sqrt{\frac{1}{24}}$
$F' = 1$		$-\sqrt{\frac{5}{24}}$	$-\sqrt{\frac{5}{24}}$
$F' = 0$			$\sqrt{\frac{1}{6}}$