

**FORMULA 3.625.1**

$$\int_0^{\pi/4} \frac{\sin^{2n-1} x \cos^p 2x}{\cos^{2p+2n+1} x} dx = \frac{1}{2} B(n, p+1) = \frac{(n-1)!}{2(p+n)(p+n-1) \cdots (p+1)}$$